

HORSHAM AMATEUR RADIO CLUB

HARCNEWS

Coming Shortly

Feb 6th Club Evening Vintage Wireless by John Narbrough

Feb 16th Club Event DF Hunt

Feb 20th Social Event The Mucky Duck tisman's Common

Mar 6th Club Evening JUNK SALE

February 2003

Sponsored by:

WINTER FOXHUNT: WINTER FOXHUNT:

A foxhunt is in the process of being organised and will take place on Sunday February 16.

It seems a very long time ago since the last event and hopefully all you keen DF types are simply itching for another session! So, sharpen up your antenna, dust off the handheld and

give it a go. If the lair is my current favourite, I promise you a pleasant morning out with a good pub lunch at the end. If you do not want to do the Foxhunt but would simply prefer the Sunday roast and a pint, please give me a call closer to the event and I will give you the details to do just that.

Details for the Foxhunt are as follows.

Date. Sunday 16th February 2003

Start. QTH of Robin G3OGP at the Haven. NGR TQ082 310

Finish ! Somewhere in SE England

First Transmission. 10:00 Local

Transmissions. 10:00, 10:15, 10:30 and then every 10 minutes until 12:00 Midday

Frequency. 144.725MHz FM

Callsign. G4HRS/P

You will require the following maps in the 1:50,000 Landranger 187. Horsham, Crawley & Reigate for the start point and 197, Chichester and the Downs for the actual Foxhunt.

If you have time, take a few pictures on the way, preferably in digital form, and I will try to add them to the Foxhunt pages of my web site. There are already several there from past Foxhunts so it would be nice to add a few

more recent ones. Your photo might already be there ! Take a look at <http://www.qsl.net/g3wzt>.

Sealed envelopes will be handed out at the start point that will contain details of the Lair and the Lunch stop. Please try to make the effort and have a go. I promise you a nice difficult one!

John G3WZT



COLD LIGHT - an essay

written about 1962

COLD LIGHT is the everyday term for phosphorescence which is defined as the emission of luminosity without combustion, or by gentle combustion without sensible heat. This is of course a complicated and difficult subject but in the paragraphs which follow I only intend to tell you about the instances of cold light which I have seen so that you may watch out for examples yourselves.

The first time I saw cold light (apart from a luminous alarm clock) was in Malaya where the firefly is a common sight after dark. These are winged insects which fly about emitting a bright green light which shows very strongly against a dark background of trees. The insects are easily caught and once in the palm of your hand they crawl about slowly so that you can examine them closely by their own light. They are about the

size of a little finger nail and the light comes from their tail section. Their light is quite bright enough to light up your palm and one can readily believe the Swiss Family Robinson tale of them being put in a bottle for use as a light to read by. The lights blink as the insects fly but this is probably because as they flit about their tails are hidden from time to time which gives the impression of a blinking light.

Similar to the tropical fireflies are our own glow worms which I used to see along the roadsides in the Lake District. The glow worm is the wingless female of a beetle. Only the female emits light and again it is from the tail section.

The most common use of the word phosphorescence is in connection with the wake of ships - we must all have read about this but how many have actually seen it? I was lucky last

year to go to Kerala in the South of India for a while and there I made a boat trip to an island in one of the many large sea inlets (we would call them sea lochs in Scotland). Returning after dark we saw the most brilliant phosphorescence in the water.

Every splash and ripple produced by the oars or the motion of the boat produced a yellow green flash of light. Striking the water with your hand made a flash of light in each air bubble. A very noticeable thing was that the water had a bad smell or more precisely - stank a little. This is very often true of tropical waters where the rate of decomposition or putrefaction of organic wastes is very rapid.

This gives a clue to the cause of the light. When a bubble of air is formed in the water there is a sudden reaction of the air's oxygen with some of the decomposing organic matter and the energy of the chemical reaction is released as light. We splashed the water all the way back to the mainland - fascinated by the display. The local people claim that the light only comes at times when the moon is not shining but this must surely be that the

brilliant tropic moon outshines the phosphorescence. (Mind you, one should not always crush local beliefs by a too rational westerners' scientific view. An explanation connected to the moon might be that the sea conditions favourable to phosphorescence occur at particular parts of the tidal cycle of neaps and springs.)

Putrefaction is commonly accompanied by cold light. They say rotting fish glows but I have not seen this. I did see phosphorescent bacteria on the ground in Malaya. This was while patrolling at night when I noticed a patch glowing green on the track. It was quite dark so I could not see what was on the ground but poking with a stick revealed nothing but soil. Presumably bacteria were working on some animal or vegetable waste and the light was a result.

If you have never witnessed phosphorescence, be on the look out for it. Going over on the ferry to Skye in August we saw it though only faintly, and once while rock climbing in Yorkshire I saw a green glow at the back of a crack but perhaps this last case was just me feeling green after a first experience on gritstone.

(Since writing the above 40 years ago, I have become very familiar with phosphorescence by sailing a small boat in coastal waters of the UK and have

learned that it is caused by micro-organisms in the water. Displays as good as the Indian one can be seen here too.)

David G4FQR.

January 2003 Club Meeting: Antennas, Computers and Contests, by Adrian G4LRP and Alister G3ZBU.

Adrian demonstrated EZ-NEC, an antenna modelling program, which plots all sorts of interesting information to do with antennas.

He had plenty of designs already on the computer so they could be quickly be displayed as it is not easy to key in details of an aerial on the spot. Small loop aerials were not tried on this software. I am sure no software can handle them!

He showed long wires, bent long wires, dipoles, bent dipoles etc. all on the 80m band. His object was to prove that at the sort of height we are able to erect aerials, it makes hardly any difference whatsoever in their radiation pattern because they

are, in terms of wavelength, just too near the ground to act like ideal aerials.

Under these conditions, much more energy is radiated vertically than would be the case for perfect aerials. All is not lost because the ionosphere will reflect this energy back down over the UK, which is bad news for working DX but great for local contacts.

This means that we have no excuse for not operating on the 80m AFS contest!

Alister took over and showed us his contest scoring program, which was written in 'C'. After a contest, logs are e-mailed or handed over to Alister on floppy disc at the next available social

evening.

His program is modified for every log to extract callsign, time, reports in and out, and other data in the case of the Club Calls Contest. This is done because almost every log received is in a different format. Ideally logs should be in text format with spaces or tabs between each entry;

TIME, CALLSIGN, RST/SN
OUT, RST/SN IN, other
data....

For the Club Calls Contest it is handy to mark each contact with N, M or C followed by the club name in full as the last item on a line. The letters N, M and C refer to Non-members, Members and Club Stations.

All the rest of log information like date, mode and frequency is discarded. The program is run, which takes a few seconds.

It checks for duplicate entries, as they have to be clearly marked otherwise one's score is penalised by ten times the claimed score.

A pool of callsigns gets generated to make sure that missed /

P portable callsigns and typing mistakes can be rectified. A majority voting scheme takes the most likely outcome.

Finally the information is sent to a log file in a SuperDuper format; all logs are then zipped up and sent to the RSGB via e-mail. A set of Summary files are also generated with rig/aerial details, power and a bit saying you operated the station to the spirit of the contest rules (or similar!). These are also zipped and e-mailed.

The zipping is done for two reasons: firstly the RSGB only want .LOG and .SUM files, secondly e-mail systems can't normally send more than 10 attachments without losing the lot. The Zip method never fails, the RSGB never complain!

Alister had written a program to send CW, receive and decode it with a soundcard, and perform logging. This could be improved to run completely automatically, so we could all be sitting in a pub while our rigs/computers were doing the contest operating!