

Est. 1938



G4HRS

# H A R C N E W S



## The Journal of Horsham Amateur Radio Club

June 2008

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Members on the air (attached separately)

**Cover photo: Simon M3SYN and Radio Sonde**  
(Courtesy M0FRH)

# Editorial

Thanks go to Bryn G3SWC who has produced a progress report for the 80m Club Championships. It appears that not many of us are actually taking part, no names or callsigns mentioned of course! Those sending input or correspondence to this magazine by email are asked to use the email address listed for that purpose. That way I can guarantee that items received will not go astray.

You will find it on this page. I will point put that I am looking into ways to help on this situation since many readers have another email address to contact me on. On that point if you are sending in photos please leave them the original size if possible. If there is a problem with that then use [www.mailbigfile.com](http://www.mailbigfile.com)

If you have one of those 60KHz radio clocks did it adjust to BST at the end of March? There have been many reports of clocks not auto adjusting. I have two in current use, the bedside one failed to adjust and I was rather late getting up for the regular Sunday net that I attend! My other one is located in the shack that did exactly what is expected.

One of the reasons appears to be a lower signal strength from the transmitter since it was moved from Rugby to Cumbria. Also interference from electrical appliances seems to be a problem. How did yours fayre? Write in and let us know. Next month you will receive the latest membership list. It is not too late for any amendments but please hurry!

David G4JHI

Copy deadline for July edition 17th June

For items sent by email please send to this address:

[harc.news@g4jhi.co.uk](mailto:harc.news@g4jhi.co.uk)

# May Meeting Review: (G4TMC)

## The Origins of the RSGB

by Gavin Keegan G6DJK

Gavin began with a brief introduction of himself and a description of his role as South and South East Regional Manager. He was also joined by Mick G4EFO the District Regional Manager for Sussex. Gavin described how the early telegraphy experiments of Marconi had inspired others to become interested.

The level of interest had been so great that the Post Office issued 10 licences for experimental work. These licence holders began to exchange ideas by letter. This in turn led Mr R. Klien, callsign RKX, to form the London Wireless Club in July 1913. The name was soon changed to The Wireless Society of London.

In 1914 with the beginning of the First World War all equipment was confiscated. Apparently during 1916 an individual from the Birmingham Wireless Association spent 6 months in prison for failing to comply with these rules. After the war there was a long period before the Post Office would issue any licences.

During this time a number of provincial Clubs formed an association with the London Club to put pressure on the Post Office. The allegiance of clubs to the London Society proved to be successful. In 1922 licences were available again and the London Society name was changed to the Radio Society of Great Britain.

In 1939 with the advent of war Licences were once again

withdrawn. However, the Authorities realised there was a bank of experience which could be a valuable asset. The result was the chain of Voluntary Interceptors being set up. In 1945 the Post Office was very reluctant to issue any Licences but this only lasted until 1946.

Since the War the Society has operated from a number of locations beginning in Little Russell Street. Then moving to Doughty Street where it stayed for many years. The next move took them away from central London to Potters Bar and now recently to Abbey Court and Bletchley Park.

Gavin then played a DVD of a promotional film about the work of the Headquarters Staff, the production and distribution of RadCom, the Radio Communication Foundation and the GB4FUN bus. Gavin spoke of some of the current aims of the Society regarding Education. The hope is to try to align the RAE with the NVQ qualification and integrate it into the 6th Form School Curriculum.

Finally in summary Gavin emphasised that being a member of the RSGB offers considerably more than 12 magazines a year and a QSL Bureau. Help and advice is freely available on a wide range of subjects. Several members of RSGB Staff hold very influential positions in many Regulatory Organisations, to represent our interests. After Coffee, Mick gave us an update on GB3WS with a number of pictures from the repeater website.

The repeater has recently been upgraded by the use of a pair of ICOM ICF110 provided by Adur Communications. These are connected back to back as RX and TX via the Logic board. The TX unit has the additional cooling fans. Since they are identical radios if either unit develop a problem they can be easily transposed, thus reducing any downtime.

In the event of the current repeater site becoming unavailable an alternative location is being considered to the west of Horsham. This may offer improved coverage for the region.

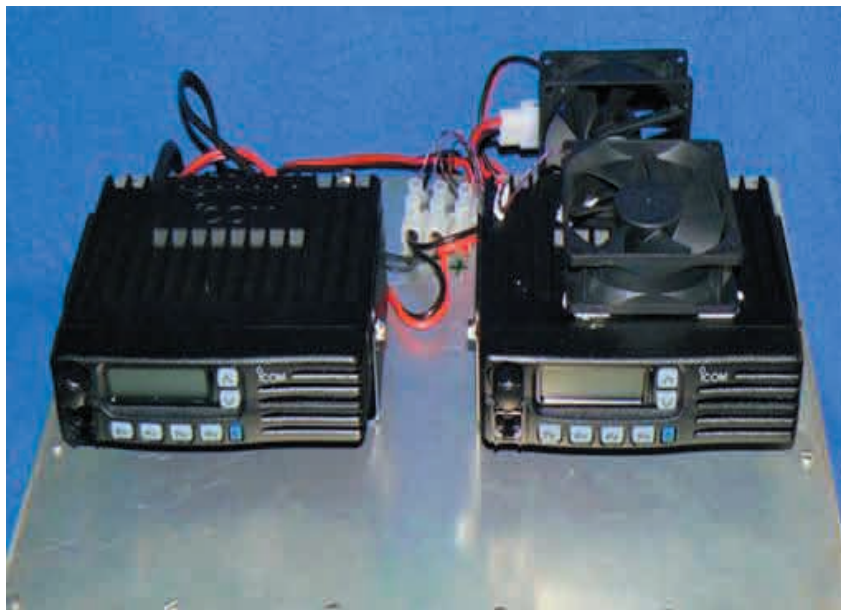


(Above)  
The original coverage plan for repeater GB3BP



(Above)  
The Actual coverage map

The suggestion of resurrecting GB3HO the 70cm repeater was also discussed. Possible sites exist in the North of Horsham. A number of new features could be incorporated if the license is re-issued. These include an Internet gateway (EchoLink), DSTAR and possible 7.6MHz wide split.



(Above)  
Icom repeater equipment

Finally Mick was thanked for all his time and efforts spent maintaining the repeater service.

[www.gb3ws.co.uk](http://www.gb3ws.co.uk)

## For Sale

Firewood, (ash tree). In 2 and 3 foot lengths.  
About 1 ton. #50, ono.

Contact G3ZBU on 01403 253432

I know it is a bit 'off-topic' but many members do live in the country and probably have real fires, and ash is the best wood for burning.

# Radio Sonde Found

(See cover photo)

You will remember the talk last year about Radio Sondes and we are delighted to report that Simon M3SYN managed to find one. He was aware that one had come down and whilst strolling in Colgate not far from the scout camp managed to find it. Unfortunately the parachute was stuck up high in a tree and probably still is.....

## Freesat Launch

The new Freesat service launched on 6th May. It is an alternative to Freeview and includes public service channels from the BBC, ITV and Channel4. Channel 5 is expected to join but is currently in an encryption contract with Sky.

Since launch the service has been carrying the BBC HD channel with more expected to join by the end of the year along with many SD channels. Originally the receivers were planned to be available via Currys, Comet and John Lewis for the first year but that will now only last about four weeks and then the independents will be allowed to sell the equipment.

There are Standard Def receivers, High Def receivers and HD PVR with prices starting at £50. This will be for the receiver only. Viewers will still need to buy a dish and then have it installed. The EPG differs from Sky and Freeview and offers a 7 day programme list.

## BBC History

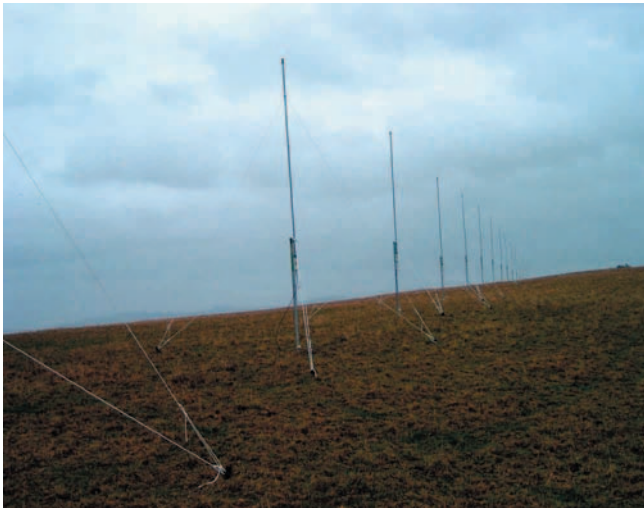
Fancy a visit to Broadcasting House? The BBC are running an inside story with a one and a half tour. This will include a visit to the Radio Theatre, Council Chamber, new digital studios and interactive drama experience.

For further information please contact your friendly Editor David G4JHI

## Mystery Photo pt II

Ideas have been flooding in for the mystery photo that appeared last month. Some thought they were a new type of mobile phone mast and others came up with ideas of plant holders, an unusual fence and even a row of football posts for the FA Cup Final!

Well you were all incorrect as they were in fact sixteen vertical antennas listening to frequencies near our 20 metre amateur band which are connected to an expensive looking receiver.



Now please write in and tell us what you think they might be listening to?

## Short Break

Horsham Amateur Radio Club (European exploration dept!) is planning an inventory session of the sights and pubs in Brugge this autumn - late Sept or Early October. It would be a weekend break with a Saturday night stay over.

If anyone is interested could they please send an email to [g4efo@gb3ws.co.uk](mailto:g4efo@gb3ws.co.uk) and you will be added to the circulation list. If you are not on the internet then a phone call to Mick on 07989 382334 will ensure you are kept up-to-date.

# Le Shuttle by Ron G3PYC

25000v pick up from either of 2 pantographs to 2 isolators and volt sensors. The main transformer has 6 secondary windings, one for each motor and 3 auxiliary. Each traction winding feeds a pair of control or converter rectifiers, acting as a 4 quadrant converter to produce a reversible DC supply at the required voltage.

These feed GTO, Gate Turn Off, thyristors that produce 3-phase variable frequency to the field coils of the squirrel cage drive motors. Each axle has a motor drive. To avoid induction effects, fibre optics carry the microprocessor's control signals to the GTO thyristors.

Three bogies to each locomotive and one motor to each axle making a Bo-Bo-Bo configuration. The drive force generated by each bogie is transferred from the bogie to the body by rods and not via the bogie pivot pin. The central bogie has a 20cm sideways play to allow for 110m radius curves.

Each locomotive generates 90,000 lb tractive effort and consumes 5.6Mwatt of power. Conventional metal brake blocks are applied to each wheel on the 3 power bogies, as there is no room for disc brakes. These brakes are normally only used when the locomotive is stationary.

A locomotive is connected to 14 wagons to form a train and two trains are connected back to back, the total length being 776m long, nearly half a mile. (849yards) All connections between each of the locomotives and their wagons are by Scharfenberger couplings. Also there are 200 pairs of contacts between each of the wagons and the locomotives.

All coupling and uncoupling is done by the train Captain and it is done automatically. All the wagons have disc brakes and these are used sparingly in the tunnel, the main braking is

by the drive motors on the locomotives reverting to regenerative braking.

The tunnel is divided into 500m segments for control and signalling purposes. All signalling is by induction and displayed to the driver in his cab. Each shuttle is allowed 3 segments of tunnel space behind it. Should a following train encroach within 5 segments a warning signal is sent to the following train cab along with a visual indication requesting a reduction in speed?

If this is ignored the following train is automatically slowed and possibly stopped. All control of traffic inside the tunnel is done from the Folkestone control room. The railway-system mimic panel is 24m long and 3m high. It uses digitised LED technology and is the largest of its kind. It is controlled by computer but can be overridden manually at any time.

A duplicate control panel is at the Calais control room. Should the need arise Calais can take over control of traffic in the tunnel. Both sides are responsible for their area outside the tunnel. Each half of the tunnel is supplied with power from their respective grids. The English half is supplied with 180Mwatts 3 Phase from the national grid.

Each train tunnel uses a separate phase rated at 60Mwatts and the remaining phase of 60Mwatts is used in the terminal area. This has to be carefully controlled as a slight imbalance could black out most of Kent. LeShuttle is allowed to travel at 160kph in the tunnel. On entry the line dips at 1 in 90 for approximately 20km, a 200m drop.

The locomotive uses the facility of regenerative braking to hold the train to its allotted speed on the down grade. The Eurostar train, because of its smaller cross section area, is allowed to travel at 180kph.



# Diary

Jun 1st, Newhaven Fort Museum Rally 10:30

Jun 2nd, 80m Data Club Championship 20:00 - 21:30  
RST + SN

Jun 5th, Club Night: Further History of Mr. Polley - Ron  
G3PYC

Jun 11th, 80m CW Club Championship 20:00 - 21:30  
RST + SN

Jun 12th, Committee Meeting - QTH of G3ZBU

Jun 19th, 80m SSB Club Championship 20:00 - 21:30  
RS + SN

Jun 20th, Social Evening - The Dragon - Dragon's Green  
(Friday)

June 27th - 29th Ham Radio 2008 Friedrichshafen

Jul 3rd, Club Night: Update on Aerials Old and New

Jul 7th, 80m CW Club Championship

All above times are BST

Committee/Club Meetings and Socials start at 8pm

## Club Champs 2008 - Horsham Club Scores - Progress Report

	FEBRUARY			MARCH			APRIL			MAY			JUNE			JULY			TOTAL POINTS	%	MODE TOTALS		
	SSB	Data	CW	SSB	Data	CW	SSB	Data	CW	SSB	Data	CW	SSB	Data	CW	SSB	Data	CW					
G3LET Pete						489													489	4	0	0	489
G3NPF Tony	142	436		510	397		747	446											2678	19	1399	1279	0
G3PYC Ron				180			183												363	3	363	0	0
G3SWC Bryn	187	590	677	354	521	603	503	851	603										4889	35	1044	1962	1883
G3ZBU Alister	90	538	451	260	429	398	478	689	447										3780	27	828	1656	1296
G4LRP Adrian	105			275															380	3	380	0	0
G4TPO Steve				387			863												1250	9	1250	0	0
M0FRH Ian							117												117	1	117	0	0
Contest dates	4th	13th	21st	20th	3rd	12th	16th	24th	7th	5th	14th	22nd	19th	2nd	11th	16th	24th	7th	Start times are all 2000 clock time, ending 2130 BST				
																		HARC total points		13946	as at 20th May 2008		
																		Club position		9th	up three positions!		
SSB entry to be sent to		<a href="mailto:cccw.logs@rsqbfcc.org">cccw.logs@rsqbfcc.org</a>																					
Data entry to be sent to		<a href="mailto:cccw.logs@rsqbfcc.org">cccw.logs@rsqbfcc.org</a>																					
CW entry to be sent to		<a href="mailto:cccw.logs@rsqbfcc.org">cccw.logs@rsqbfcc.org</a>																					
		Latest results and info from RSGB: <a href="http://www.vhfcc.org/hfcc/results/2008/80mcc2008.shtml">http://www.vhfcc.org/hfcc/results/2008/80mcc2008.shtml</a>																					
		Contest rules: <a href="http://www.vhfcc.org/hfcc/rules/2008/r80mcc.shtml">http://www.vhfcc.org/hfcc/rules/2008/r80mcc.shtml</a>																					
<p><b>How does the RSGB scoring system work?</b>  Each participant claims one point per contact. The person with the highest number of contacts is awarded 1000 points by the RSGB. The person with the next lowest score will be awarded 999 points etc. The individual club member points are then added together to obtain the overall club score. Steve/G4TPO has been the person with the highest individual HARC awarded points in any one contest to date - well done Steve!</p> <p>Please have a go at participating in these contests as just a few contacts really does make a difference. So if you are a newcomer or can only spend part of the 1.5hrs, then it is really worthwhile! It is also extremely good fun! We need every point we can muster &amp; your contribution will be gratefully appreciated. To gain one position in the club list, we need another 3325 points - with your help this IS achievable, so how about it - YOUR CLUB NEEDS YOU!</p> <p>If you need advice on using Cabrillo format or need help participating in the data contests then please contact Bryn - G3SWC who will be pleased to help.  <a href="mailto:g3swc-harc-cc@bevrynn.eu">g3swc-harc-cc@bevrynn.eu</a></p>																							