

Est. 1938



G4HRS

H A R C N E W S



The Journal of Horsham Amateur Radio Club

June 2011

Sponsored by:



Contents

In this issue

- 3. Special occasion
- 5. In here, out there
- 10. How did you do
- 11. Green and white
- 12. Thinking caps on
- 14. Diary of events

Members score

Cover photo: Royal Wedding celebrations in full swing in the distance

Editorial

Just before the longest day of the year the 144MHz Practical Wireless Contest takes place. Although there is no official club event if you would like to have a go you will need to operate QRP with 3watts (see diary). The 2 metre dipole bought at Kempton featured below could come in useful here. The next main club contest event will be SSB Field Day in September.

From the day of the recent Royal Wedding until May 9th I operated along with many other amateurs around the UK with the special prefix 'R' in the callsign giving GR4JHI in my example. Permission was granted by requesting an NOV (notice of variation) online from Ofcom which was sent out by email. During this time not only did I appear on my usual G3LYW nets but also on the Horsham Club and BAD nets.

The rest of my operating was spent mostly on 18MHz with a little on 21, 14 and 7MHz. Many contacts were on CW across to the USA with the special call causing pile ups! It would be interesting to find out how other HARC readers got on? During the actual wedding I was in the roof space adjusting my DAB antenna rather than watching TV!

Since reporting that the Wrotham transmitter was now on air I moved the position from Reigate to Wrotham. This brings in all stations available from the BBC, commercial and London local multiplexes but now includes London 3 which strangely disappeared into the mush for 2 years! Due to the high level of signals available it will stay in the loft rather than go outside.

I was advised a while ago by broadcast DXer David 2E0NKC that The Voice of Russia (formerly Radio Moscow) was broadcasting on DAB in London. I found some posts of this on the web indicating they were hiring airtime on

Spectrum Radio but there was still no sign of it.

It appears to have got delayed but I can confirm that the station is now broadcasting through the Spectrum 2 stream. Transmission times are 6am – 6pm and 11pm – 4am BST using a bit rate of 64kbps.

I have received a request asking if the Gadget Show Live exhibition could be made into a Club event. Well the simple answer is yes subject to sufficient interest. So if you are interested in going next April please could you advise me.

David G4JHI



2 metre dipole

Copy deadline for July edition 22nd June

For items sent by email please send to this address:

harc.news@g4jhi.co.uk

HARC May Meeting:

Repeater Update

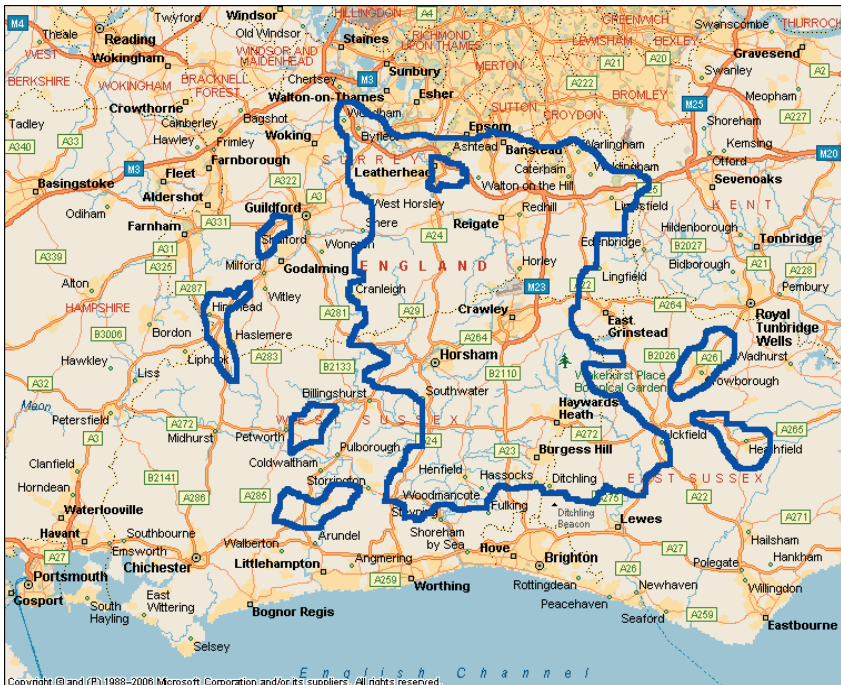
by Mick Senior G4EFO

This meeting was to have been a talk by Chris Smith G4NUX on the Software Defined Radio. Unfortunately Chris was unable to make it due to unforeseen circumstances, Mick G4EFO kindly volunteered to step in at the last minute.

Repeater Update

GB3WS is fully operational and located on a railway tower situated between Handcross and Turners Hill.

Map showing reliable coverage of GB3WS



Sometime in the future there is a possibility of an alternative repeater being setup in the Turners Hill area. This may result in WS being relocated in the Horsham area. A potential new site in Horsham is County Hall North (the old Sun Alliance building)

Computer test plots of the coverage from this location show there would be an improvement to the west. The natural topography towards the east would result in a drop off towards Crawley / Turners Hill.

However before any move is considered certain criteria need to be met. The most important is the new location must be available free of charge. The other requirements need to be at least comparable to the existing facilities. On the current site these are a 60ft tower, an air-conditioned equipment cabinet, and access 24 - 7.

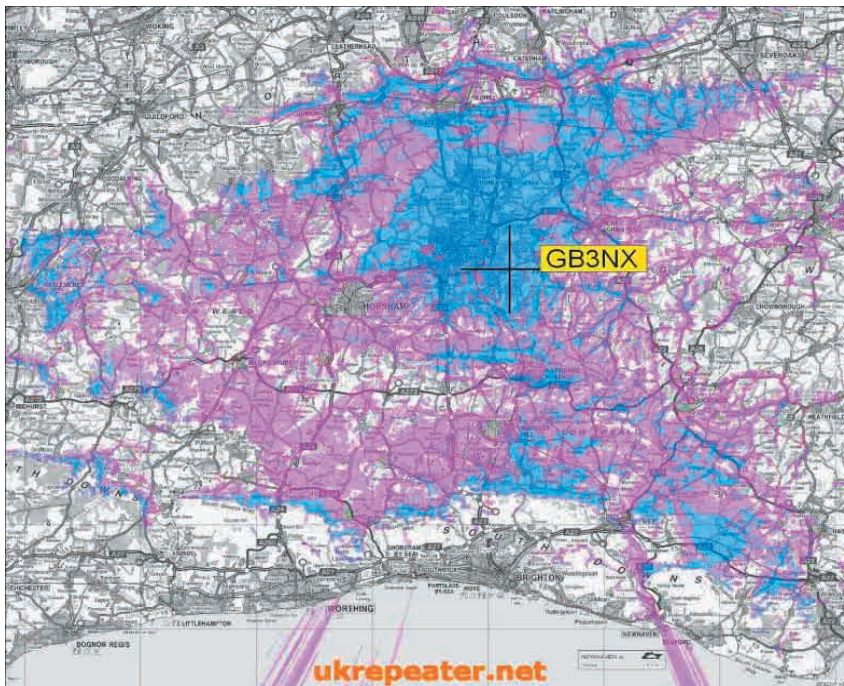
GB3NX the Crawley 70cm repeater is presently off the air



GB3NX Equipment

The current equipment is a Tait 800 base station, a Dell PC for the control logic with a 3G Dongle for Internet access. This was previously the Ashdown Forest Repeater Group GB3MH, which had been taken off air due to coverage and site problems. The offer of making GB3NX into an internet gateway for EchoLink was accepted by the Ashdown group, so the equipment was transferred to the NX site.

The station is located at Worth Abbey



Unfortunately access is not available without first liaising with the site owner. So a move to co-locate it at the WS site may be considered. If the relocation does happen the Tait base station is likely to be replaced with a pair of Icom rigs

Mick then proceeded by giving an explanation on the use of cavity filters in repeaters. These allow the Transmitter and Receiver to use the same antenna at the same time. Producing the same coverage pattern for both transmit and receive.

The filters pictured below consist of an adjustable $\frac{1}{4}$ wave in free space with a coupling loop.



Mick demonstrated the tuning method with the aid of a spectrum analyser. To show how a notch could be achieved at the required transmit and receive frequencies. A series of filters in both the TX and RX lines need to be setup to give 130dB of separation.

The Repeater logic was also discussed, in particular, the delay timer which is designed to allow other stations to call in. The correct procedure being when the 1st station passes transmission to the 2nd station, a 2 second gap is generated before sending the K-tone. During this period any station wishing to call in may do so by announcing their call sign rather than during a QSO.

Someone shouting the word BREAK over the top of the transmission has never been considered good practise and

anyone using this incorrect technique is likely to be ignored.

After the coffee break Mick continued the evening with a DVD presentation of the work of the Radio Communication Agency. The agency existed until December 2003 when they were merged with other regulatory bodies to form Ofcom. The DVD explained some of the work undertaken by the staff at their offices at the old RAF Kenley in Surrey during the 1980s.

A number of examples of the radio investigation work were explained. These included the interference caused to Gatwick Air Traffic Control by a badly designed baby monitor. This could be clearly heard breaking over the tower frequency as an aircraft took off from the airport.

Another investigation involved a surveillance exercise in the North Sea to ascertain the location of the pirate radio ships anchored in the Thames Estuary. These ships were the infamous Radio Caroline and Laser 558.

Certain facts were mentioned relating Radio Caroline when it broadcast from the ship the Ross Revenge. These included the transmitter output power being 50Kw and the height of the antenna tower which was 300ft. In order to counter balance this, the ship's hold contained 40 tonnes of concrete.

Apparently the top 100ft of the tower broke off during a storm.

Many thanks, to Mick for stepping in at the last minute and providing such an informative evening.



Fox Hunt Results – Sunday 18th May 2011

Start :- Mannings Heath @ 10:00

Fox :- Upperton Common, just
West of Petworth Park

Finishers :-

- 1) 11:13 Mike, G8CKT & Yvonne,
G6CKT
- 2) 11:23 Robin, G3OGP
- 3) 11:24 Mike, G4EFO
- 4) 11:35 John, G3WZT & Janet
- 5) 11:54 Adrian, G4LRP
- 6) 11:58 Bryn, G3SWC
- 7) 11:59 Alister, G3ZBU

Non finishers :- Brian, G8PUH; Alan, 2E0BTO
& Dominic, M0GUZ; Steve, G4TPO

TV Addict

Eddie Stobart: Trucks and Trailers now in it's second series is all about yes you've guessed it those famous lorries that trek across the UK and beyond. The business was started by 'Steady' Eddie Stobart in the 1950s as an agricultural business in Cumbria. Each program follows a set of drivers and their experiences on route to destinations which include retail stores Tesco and Homebase.

One recent episode featured a driver stuck in a traffic jam on the A6 in Scotland as a bull had got loose onto a roundabout. The police had to halt the traffic for safety reasons. Later after the goods had been delivered the driver had permission to continue to John O Groats just for the experience. There he found some Eddie spotters.

These are exactly that, enthusiasts of Eddie Stobart lorries and it was certainly an experience for them to see one of these lorries in such a remote area. Drivers regularly spend much of the working week not only driving but living in their truck which includes all the essential facilities.

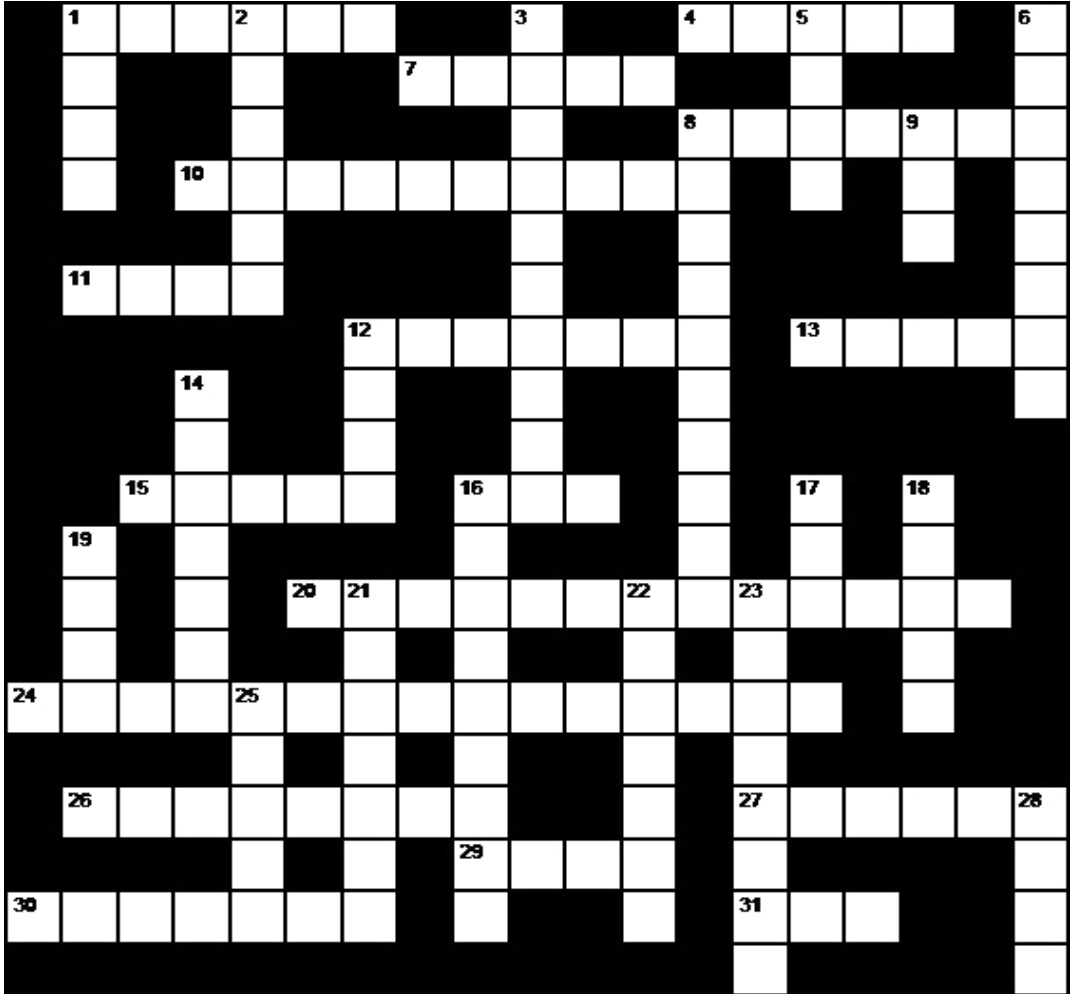
If you haven't seen the programme it is well worth watching and includes fact files on various operations of the haulage company. It can be watched on Friday evenings on Channel 5 at 8pm. http://en.wikipedia.org/wiki/Stobart_Group

Membership List 2011

Each year a membership list is distributed to HARC club members. This gives details of callsign, address and telephone number. Email addresses are not included. If members have any amendments including specific details not to appear in print then now is the time to get in contact with either the Newsletter Editor or Treasurer. .

HARC Crossword

by Mike, G8CKT



Clues

Across

- 1 Sunday morning on eighty (6)
- 4 Unit of inductance (5)
- 7 Conducts one way only (5)
- 8 Start signal or part of a gun (7)
- 10 Technique used when sending CW (10)
- 11 Thousand million (4)
- 12 Material used in high-performance batteries (7)
- 13 Venue for 'Curry Night' (5)
- 15 Organization for CW enthusiasts (5)
- 16 Needed for old-style CW (3)
- 20 Invented by Rudolf (13)
- 24 Popular radio venue in June (15)
- 26 Energized element (8)
- 27 Improve vertical efficiency (6)
- 29 Alister's preferred aerial support (4)
- 30 Useful device for turning an antenna (7)
- 31 Hunted hidden station (3)

Down

- 1 Directional antenna (4)
- 2 Sponsor of the HARC Journal (6)
- 3 Ionized region in the upper atmosphere (10)
- 5 Straight up and down (almost) (4)
- 6 Integral multiple of the fundamental (8)
- 8 Temperature dependent resistor (10)
- 9 Antenna support or friendly chap (3)
- 12 Attenuation (4)
- 14 Basic Marconi aerial (7)
- 16 Expanded form of 'kHz' (9)
- 17 Interference caused to broadcast radio (3)
- 18 Japanese transceiver manufacturer (5)
- 19 Should ideally be 1 (4)
- 21 Negative electrode on an NPN transistor (7)
- 22 Convenient accessory for contest operation (7)
- 23 Manufacturer of the K2 (8)
- 25 Undesirable in an oscillator (5)
- 28 LHZ's favourite antenna? (4)

Diary

June 2nd, Club Night: Mike Tooley, G8CKT - A Brief History of Amateur Radio
(Due to unforeseen circumstances the original speaker is unable to attend)

June 6th, 80m Data Club Championship 20:00 - 21:30

June 9th, Committee Meeting - QTH of G3ZBU

June 10th, Mid-Sussex ARS - Fox Hunt/Direction Finding evening
www.msars.org.uk/contact.html

June 12th, Practical Wireless 144MHz QRP Contest 10:00 - 17:00
www.pwcontest.org.uk

June 15th, 80m CW Club Championship 20:00 - 21:30

June 16th, Social Evening - The Countryman Inn - Shipley

June 23rd, 80m SSB Club Championship 20:00 - 21:30

June 24-26th, Ham Radio 2011 - Friedrichshafen **09:00 - 18:00 Fri/Sat
**09:00 - 15:00 Sun
www.hamradio-friedrichshafen.de/ham-en

July 4th, 80m CW Club Championship

July 7th, Club Night: Radio Researches

All above times are BST except ** which is CET

Committee/Club Meetings and Socials start at 8pm

Club Champs 2011 - Horsham Club Scores

Issue: 25th May 2011 Rev A

PARTICIPANTS	JANUARY			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	SSB	Data	CW			SSB	DATA	CW
G3LET Pete					407							951										1358	2.6	0	407	951
G3NPF Tony	780	485		423	275		860	663		606	575		513									5180	9.9	3182	1998	0
G3OGP Robin	203	703	655	650	456	604	358	689	674		679	656	397									6724	12.9	1608	2527	2589
G3PYC Ron				99			146			236			191									672	1.3	672	0	0
G3SWC Bryn	1000	958	810	600	565	690	577	656	718	608		787	503									8472	16.2	3288	2179	3005
G3VQO Les											474	476										950	1.8	0	474	476
G3WZT John												550										550	1.1	0	0	550
G3ZBU Alister	682	899	477	550	571	500	417	738	493	679	806	566	572									7950	15.2	2900	3014	2036
G4EFO Mick																						0	0.0	0	0	0
G4LRP Adrian		566		550	559		373	362		536	297		469									3712	7.1	1928	1784	0
G4JHI David										260			262									522	1.0	522	0	0
G4TPO Steve	0	530		450			548	493	87	742	347	91	345									3633	7.0	2085	1370	178
G7DFV Gavin							110															110	0.2	110	0	0
G8CKT & F8VON Mike	406	670	191	450	370	52	329	559	211	411	556	164	358									4727	9.1	1954	2155	618
G8HQJ Barry	485	551	108	296	440	164	345	443	160	465	693	214	528									4892	9.4	2119	2127	646
M0FRH Ian																						0	0.0	0	0	0
M0GJH Andrew	580		346						319			394										1639	3.1	580	0	1059
G0IDA Berni								450				500										950	1.8	0	0	950
2E0BTO Alan	129																					129	0.2	129	0	0
2E0DDW Dominic																						0	0.0	0	0	0
Mode totals	4265	5362	2587	4068	3643	2010	4063	4603	3112	4543	4427	5349	4138	0	0	0	0	0	0	0	0	52170		21077	18035	13058
Month totals to date			12214			9721			11778			14319			4138									40%	35%	25%
Contest dates/times	12th	20th	3rd	7th	16th	24th	24th	7th	16th	13th	21st	4th	2nd	11th	19th	23rd	6th	15th	13th	21st	4th	Start times are all 2000 clock time, ending 2130 local				

HARC overall position after above results announced: 6/71 4/75 7/53 3/78 5/83 6/82 6/86 5/85 6/86 6/88 6/88 6/86 6/88

HARC POSITION
NO CHANGE since last report

All entries to be uploaded with the Contest Robot at:- www.rsgbcc.org/cgj-bin/hfenter.pl Latest robot entries may be viewed at:- www.rsgbcc.org/cgj-bin/hfposted.pl
Contest results may be viewed at:- www.rsgbcc.org/hf/results/2011/80mcc2011.shtml Contest rules may be viewed at:- www.rsgbcc.org/hf/rules/2011/r80mcc.shtml

NO CHANGE IN THE LEADER BOARD SINCE THE LAST REPORT BUT WE HAVE GRIMSBY CLOSE ON OUR HEELS. WITH A LITTLE EFFORT WE COULD ALSO REGAIN OUR 5TH POSITION FROM THE THREE AS CONTEST GROUP.

MAY CW SAW A POOR TURN OUT WHICH WAS RATHER DISSAPPOINTING COMPARED TO THE EXCELLENT EFFORT IN APRIL.

THE JUNE ENTRIES WILL BE SOMEWHAT DEPLETED AS FAR AS SSB IS CONCERNED AS THIS CLASHES WITH THE HARC TRIP TO FRIEDRICHSHAFEN. FOR THOSE THAT ARE NOT GOING TO GERMANY, PLEASE SUPPORT YOUR CLUB BY PARTICIPATING.

AT THE TIME OF WRITING, THE MAY CW & DATA RESULTS HAVE YET TO BE PUBLISHED SO PLEASE KEEP AN EYE ON THE RSGB HF RESULTS PAGE.

ONLY JUNE AND JULY CONTESTS REMAIN AND HENCE OUR ONLY CHANCE TO REGAIN 5TH OR MAINTAIN OUR 6TH POSITION WITH YOUR HELP!

THE TOP TWELVE CLUBS - out of approx 88 participating
(data courtesy of RSGB website)

Pos	Club Name	Total	CW	SSB	DATA
1	Bristol CG	97642	31231	40407	26004
2	Norfolk ARC	65063	18969	24357	21737
3	Newbury & DARS	65047	22692	22079	20276
4	De Montfort University	63739	19204	21277	23258
5	Three As CG	53764	25565	19357	8842
6	Horsham ARC	52170	13058	21077	18035
7	Grimsby ARS	46625	17283	14518	14824
8	Brimham CG	35647	15575	11767	8305
9	Cheltenham ARA	33278	15390	11384	6504
10	Tall Trees CG	31888	11669	10021	10198
11	Travelling Wave CG	31874	9744	11248	10882
12	RAF Waddington ARS	24465	8983	9459	6023