July 2004

GLOUCESTERSHIRE REPEATER GROUP NEWSLETTER

Edited by: Stewart Wilkinson G0LGS

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CHAIRMAN'S REMARKS

Running a repeater group is a bit like waiting for a bus! Nothing happens for ages, and then they all arrive at once, or so it seems.

Work on various sites and equipment has been planned for some time and the schedule of completion appeared reasonable, when a couple of other issues appeared out of the blue. Stewart makes reference to at least one of them elsewhere in the Newsletter.

Sometimes the 'issues' make more work; other times they relieve the pressure. Well this time we've had both so I suppose you could say they have balanced each other out – well, almost! We still need more members to get involved with the engineering side of the group. Are you up for it? Please contact either myself, Steve G4FPV or Stewart G0LGS for details.

Elsewhere you will read about certain activities we are working on, including a site move for the voice repeaters, but without changing the NGR(!), plus the acquisition of a new location on Cleeve Common (subject to contract), and the commissioning of the latest APRS node and work on the Severn Bridge.

Nick Negus G6AWT.
Chairman

AGM NEWS

The AGM took place on Tuesday 20th April at the Civil Service Club, Tewkesbury Road, Cheltenham. However the attendance was disappointingly low, with only one non-committee person (a visitor) present.

The existing committee was re-elected en-bloc so the committee is as follows:

Nick Negus	G6AWT	Chairman
Martin Davies	G0HDB	GB7DXC Representative
Roger Dobbs	G7FGK	
Ken Eastty	G3LVP	GB3GH Manager
Dave Morris	G4GVZ	APRS Manager
Mark Orchard	G0USL	
Steve Perkins	G4FPV	Technical Manager
Chris Weaver	G1YGY	
Stewart Wilkinson	G0LGS	Treasurer
Iain Wingate	G4HAQ	
Graham Nye	G8URP	Secretary

GB3GH VOICE REPEATER

Negotiations are well under way with a site owner and other interested parties with regard to a proposal made by the committee to move both the GB3GH and GB3CG Voice Repeaters. The proposed site, which is just a few metres from the existing location, will give a little more height to the Antenna system, and has a clearer view of the horizon than the existing site and so should provide improved coverage areas on both repeaters. The proposed move may also save the group some money as owners of the current site have for the second year running doubled the site rental (and asked for back-dated payment).

GB3CG VOICE REPEATER

Steve G4FPV and Stewart G0LGS visited the site on the evening of Monday 5th July, to install new repeater logic, and to make some adjustments to the Transmitter, to improve the transmitted audio.

Ken G3LVP is carrying out tuning & modification work on one of the spare receivers, which it is hoped will eliminate the intermittent noise problems that appear on the system from time to time.

Stewart G0LGS has applied for and received a Notice of Variation to operate a gateway on GB3CG. The gateway makes it possible to link to other repeaters (and other licensed users) around the world. Stewart expects the link to be available between 17.30 – 23.59 most weekdays and 10.00 – 23.59 most weekends (longer hours may be possible at weekends).

GB3CG has been allocated Echolink node number 190502 (it will appear as GB3CG-R on Echolink). Further Information on EchoLink (including the software required for access from the Internet) can be found on the web at http://www.echolink.org.

A user guide for GB3CG is available on the groups new web site at http://www.grg.org.uk/ .The guide includes information on using DTMF tones over the Radio to control various Echolink features.

If you do not have Internet access or would like a printed copy of the user guide then please send Stewart G0LGS a Stamped Self Addressed Envelope clearly marked 'GB3CG User Guide'.

The new repeater logic (produced by G4FPV) includes changes, which are aimed at improving the inter-operation with Echolink, details of the new logic are included in the new user guide, but are reproduced below:

To gain RF access to the repeater when it is not already in operation you must provide a 1750 Hz tone-burst (of around 200 mS duration) or a CTCSS at 118.8 Hz ('J') the repeater will then activate.

After the initial access and whilst the repeater is active no other tone is required and it will stay open as long as it is in use (unless a time-out occurs).

After successful access (of at least 3 Seconds duration) the system will send an "E" in Morse, followed 5 seconds later by a "K". (A "B" is used instead of a "K" when GB3CG is operating on back-up battery).

During periods when Echolink is available, you are advised to wait until the "K" sounds before responding, this should allow time for all remote links to reset ready for the next transmission and allow users from other linked repeaters to join in.

The new logic causes the repeater to transmit CTCSS (at 118.8 Hz) only whilst held open by a signal on it's input frequency, so if you are using CTCSS to mute the receivers audio you should not hear the "E" or "K" 'pips'.

To comply with UK repeater licensing requirements the GB3CG repeater has a 5-minute time-out (approx), if this is exceeded then the system will cut the users audio and send a series "H's" before dropping carrier. The system may however be re-accessed by a stronger signal immediately. Following a time-out (even when re-accessed) GB3CG will send "OK" when the input signal drops.

The UK repeater licensing requirements specify that the system must send it's CWID every 15 minutes, during periods of continual operation this will normally be sent at lower deviation soon after a user starts to transmit. During quiet periods (beacon mode) the CWID will be sent at normal deviation and will be followed by a "J" to indicate that the system uses CTCSS tone "J" .The "J" will however change to a "B" during periods when operating from battery back-up, all beacon mode identification tones are transmitted without CTCSS.

GB3CCX / MB7UC / GB7RR

Negotiations continue towards getting a formal written agreement with the site owners of the proposed new site (adjacent to the existing site). Work on moving equipment is expected to commence once the written agreement (contract) is in place; hopefully the move of equipment to the new site change will be completed (with minimal downtime) before winter arrives.

GB7LGS BBS

Due to lack of direct RF use the 2m and 70cm user ports at GB7LGS were turned off at the end of May, however GB7LGS is still accessible from the rest of the RF network and via the Internet. If you would like access to GB7LGS (either from the RF Network or the Internet) please contact Stewart G0LGS.

GB7FD NODE

It appears from correspondence received by the chairman that responsibility for the GB7FD site may have been taken over by a new management company, however we have not yet received any formal notification of this change.

Work on checking out the increased retry rates on the GB7ST and GB7NW links is still outstanding, however the average rates are currently below 10%.

The committee has briefly discussed the possibility of a link from GB7FD to the Fourpak GB7CL node; path plots show that this is a viable path on 23cm.

GB7RT NODE

Just as the last newsletter was being mailed to members, Stewart G0LGS and Nick G6AWT received telephone calls advising the group that the site (formerly part of the Gloucester railway yard) had been acquired by and was about to be handed over to developers. Within 2 hours of the telephone calls GB7RT had been closed down and all equipment removed from the site, this means that the cable link to GB7SR is now no longer available.

The committee have decided that for the time being no attempt will be made to find an alternative location for GB7RT, thus enabling them to spend more time & effort improving / repairing other systems. An alternative circuit to the Swansea University system (GW3UWS) is available over the Internet from Stewart's GB7LGS-9 Node.

GB7SR NODE

GB7SR will continue to operate without the cable connection to GB7RT, as it acts as a useful single port 70cm digi-repeater that helps some users around the Swansea area gain access to the GW3UWS system at Swansea University.

GB7GH NODE

The 2m-user port at the GB7GH site is now operational on 144.9375 MHz with around 130mW RF output from the Pye Westminster radio (with PA removed).

IDE Hard disk drives that were installed in the GB7GH systems earlier in the year failed after just a few weeks operation. Some 16MB IDE Disk-on-Module Flash memory devices have been purchased and used to replace the faulty disks; these modules require no special drivers and are simply a plug-in alternative to using mechanical disk devices. The modules are available in a variety of sizes, but smallest 16MB ones have more than adequate storage capacity for our requirements.

GB7RC NODE / MB7US APRS

Stewart G0LGS, Steve G4FPV, Glynis Wilsdon (SWL) and Nick G6AWT spent most of 16th June around 350ft above the M48 (450ft Above Sea Level) at the GB7RC/MB7US site.

During their visit the installation of the MB7US APRS system was completed, all antenna systems were checked and serviced and work on the High-speed link (via GB7RR) to the GB7GH and MLVN (G4FPV) nodes was carried out, whilst that link is now operational the retry rates are still very high, so further work is still required.

Tests were also carried out on the 9K6 duplex link to GB7WO, but these were inconclusive as they were unable to make any connection over the RF circuit, and never saw/heard GB7WO transmit (on a previous visit GB7WO was a very strong signal over the relatively short line of site path).

It is proposed to try to arrange a visit to the GB7WO site to assist the Wenvoe group in determining if there is a compatibility issue with the hardware used at that site and that used at GB7RC.

TREASURERS REPORT 2003/2004

During the 2003/2004 financial year the group received donations and subscriptions totalling £259.00 whilst sales of surplus equipment raised over £1368.50, Total Income for the year was £1,711.83.

We spent £485.89 on site rental, £235.89 of which was for back-dated increases imposed for the Littledean and Churchdown sites. We spent just £10 on items of equipment and spare parts; £40 on meetings, £210.60 on Insurance, £30 on licence fees, with other costs the Total Expenditure was £817.58.

The surplus for the year was thus £894.25 (£1711.83 - £817.58).

The balance of accounts on 31st March 2004 (end of groups Financial year) was £2904.46 comprising:

Cash	£17.82
Current Account	£780.59
Deposit Account	£2106.05

On 31st March 2004 the group had 24 members.

FOURPAK NEWS

Fourpak are currently working to restore the GB7CL node to full operation after the previously reported theft of equipment from the site (in August 2003). The re-vamped system is expected to run G8PZT's Xrouter software on a 386 or 486 computer, using some cheap TNC cards.

Fourpak hosted the 2004 UK Packet Radio Conference, in Worcester on 15th May 2004, approx 30 sysops and users from around the UK attended the event. Minutes and other information regarding the event should be available in due course on Paula's (G8PZT) web site at http://pzt.org.uk/pk2004. (Paula was largely responsible for organising the event and persuading people to attend and/or give presentations).

OTHER NEWS

The GB7DXC DXCluster now has a Broad-Band Internet connection, which is being used to carry most of the Inter-Cluster Traffic, and so free up the RF circuits for the user Traffic, it includes an Internet connected circuit to GB7LGS. Martin G0HDB is having a few problems with the new system, but hopes these will all be resolved shortly.

Paula (G8PZT) has an Echolink compatible gateway (using her own software) on her new 2m voice repeater (145.7875 / 145.1875 MHz) GB3KD based in Kidderminster. GB3KD (Echolink node number 187981) has apparently been worked directly by a few well-sited stations in the Cheltenham / Gloucester area. Further information on GB3KD is available from Paula's web site at http://pzt.org.uk/gb3kd/index.htm .