

GLOUCESTERSHIRE REPEATER GROUP NEWSLETTERGB3GH GB3CG GB3CCX GB7FD GB7GC GB7GH GB7RR
GB7GLO GB7LGS

Edited by: Stewart Wilkinson G0LGS

CONTENTS**Page**

CHAIRMAN'S REMARKS	1
AGM REPORT	2
GB3GH 70CM VOICE REPEATER	2
GB3CG 2M VOICE REPEATER	2
GB3CCX 10GHZ BEACON	3
GB7GH NODE.....	3
GB7FD NODE	3
GB7GC NODE.....	3
GB7RR REGENERATIVE PACKET REPEATER.....	3
GB7LGS TCP/IP MAILBOX	3
GB7GLO MAILBOX.....	4
TREASURERS REPORT	4
WANTED.....	4
WORDSEARCH PUZZLE - WINNER.....	4
PUBLICITY	4
A COMMON DATE/TIME STANDARD FOR AMATEUR RADIO.....	4
PACKET RADIO FREQUENCIES ON 2M.....	6
DEVIATION MEASUREMENTS / FREQUENCY CHECKING.....	6

CHAIRMAN'S REMARKS

This is the first *Newsletter* since the AGM. Firstly, thank you to all those who turned up and listened to the reports, made comments, and voted in the new committee. Secondly, yet again the committee has a heavy work-load over the next few months to improve the data network and enhance the performance of the voice repeaters. You will find more information elsewhere in this *Newsletter*.

I have been asked to explain how we go about surveying new links and coverage maps. The process is three-fold. Firstly we look at the requirement for a new link or node and ask if it will contribute anything to the quality of the network in terms of data through put or convenience to users. If the answer is "yes", all of the information is put into a software programme - this includes proposed frequencies, aerial types, data rates, and site information. The software is commercial in origin; we have access to two systems. The most useful is *Propagation Expert* for looking at the link ends. We are fortunate in having access to a *Propagation Expert* user. The second programme provides terrain coverage and allows signal strength calculations to be printed on top of maps thus showing coverage from node sites. Finally, if the predictions are good, we visit the site, conduct tests, take measurements and photographs, and make application to the site owner to locate the equipment.

So how do we get the idea for a new site? Well, we use the hear-say method. In legal terms this means third hand information that is not to be relied upon as it could be inaccurate or entirely false. Generally we get messages that the coverage in a certain area is poor or does not exist at all. We will look at this using the software, analyse the results, and determine whether the coverage is poor or whether the user has a specific technical problem that we can resolve. This is a far more professional approach than the " 'ere, say we put up an aerial, run 25 watts and hope we can hear it" method that is used by some groups. By using the software tools we are able to use powers of a watt or less to provide acceptable coverage without interfering with other adjacent users. Perhaps we should call it a hear-do method instead!

We are happy to receive suggestions from members and others on how we can improve our service to the users of our systems. We welcome constructive input to the development of new ideas particularly if someone comes up with something innovative or something that will save expenditure or wasted effort.

Nicholas Negus G6AWT
Chairman

AGM REPORT

The Annual General Meeting was held on Tuesday 28th April 1998 at the Civil Service Club, Tewkesbury Road, Cheltenham, however the number of members present for this important meeting was well down on last year.

The Chairman, Nick Negus (G6AWT) was unable to attend the meeting (he was called away on other business at short notice), so Steve Perkins (G4FPV) agreed to chair the meeting on his behalf.

The Committee for the 1998/89 was elected as follows:

Chairman:	Nick Negus (G6AWT)
Secretary:	Graham Nye (G8URP)
Treasurer:	Stewart Wilkinson (G0LGS)
Technical Manager:	Steve Perkins (G4FPV)
Others:	Mark Orchard (G0USL) John Colley (G4XJC) Martin Davies (G0HDB) Ken Eastty (G3LVP) Roger Dobbs (G7FGK)

It was agreed by the meeting that the suggested minimum donation/subscription rate should be increased from £7.50 to £10 per year. (Those members whose subscriptions are due shortly or already overdue should have received a reminder with this newsletter).

A discussion on the status of the groups Insurance and its affiliation to UKRS (United Kingdom Radio Society) concluded with acceptance from those members present that the group continue the current affiliation for the sole purpose of obtaining equipment and 3rd Party Liability Insurance at a discounted rate. (It was noted that UKRS have acknowledged that this is the only reason for GRG's affiliation).

It was suggested by Derek Thom (G3NKS) that the Committee look into the costs and benefits of affiliation to RSGB. The committee agreed to look at this and report back to the membership at a later date. (The RSGB Internet WEB pages at <http://www.rsgb.org/> include information on the procedure involved and a list of currently affiliated Clubs / Societies).

GB3GH 70cm VOICE REPEATER

A 5dB RF Power amplifier has recently been fitted to GB3GH to bring the ERP nearer to that permitted under the Licence, it is hoped that this will improve the transmitter coverage and lead to increased usage. Reports on GB3GH should be sent to Ken Eastty (G3LVP) email: g3lvp@aol.com or by packet to G3LVP@GB7LGS .

The repeater was out of action for several short periods during May while engineers carried out complete re-wiring of the electrical system at the site.

GB3CG 2M VOICE REPEATER

Since installation of GB3CG in January the initial flurry of activity seems to have fallen off, leaving just a few regulars using the system.

As with any new system a few teething problems have been apparent at GB3CG, the control system has suffered from the occasional lockup requiring manual intervention to restore normal operation, and intermittent noise has been heard on the transmitted audio.

A few users have mentioned the presence of an audible hum on the repeater output, this is actually the 118.8 Hz CTCSS tone that is intentionally transmitted by the repeater. Ideally this tone should not be audible, but in practice can be heard by a number of stations using equipment with very good low frequency audio response (Car Stereo speaker systems are a good example).

During a visit to the site on 2nd May Steve (G4FPV) and Nick (G6AWT) updated the Logic control system, as well as making some minor adjustments, including cleaning of the contacts of a relay in the receiver and reducing the deviation level produced by the CTCSS system.

GB3CCX 10GHz BEACON

A small amount of work was undertaken at the GB3CCX site to tidy up the installation of the DC Power Supply System (in order to accommodate the installation of GB7RR). The beacon continues to function well, with the best DX report received to date being a distance of 444Km from Holland.

All reports for GB3CCX should be sent to Nick G6AWT (QTHR).

GB7GH NODE

GB7GH was off air for several short periods during 2 weeks or so in May while engineers carried out complete re-wiring of the electrical system at the site. This essential work is now complete and no further outages are expected.

Equipment for the new 19200-Baud link to the East (via GB7RR) will be installed shortly.

The committee is currently investigating the possibility of a 9K6 (or better) duplex link from a new site in Gloucester to Swansea. The idea is to use a 23cm radio link from GB7GH to Gloucester and then a dedicated 2 or 4-wire line to Swansea, with a single port 'THENET' Node being used at each end.

As the registered sysop of GB7GH I have recently written to DANPAK (Derbyshire & Nottinghamshire Packet Group), asking for an update on the status of their refitting of GB7RP, and for an urgent response regarding our proposal (of April 1997) to upgrade the 23cm link from GB7GH (via G7AXC) to GB7RP. (We are currently unable to upgrade the link to GB7DXC or install any additional 23cm Links without causing severe de-sense to this busy Northbound link).

Stewart Wilkinson.
G0LGS

GB7FD NODE

GB7FD was off air for several hours from around 0300 GMT on Wednesday 27th May when the battery that is fitted in the timer, which reboots the computer each day, failed. The battery requires replacement 3 or 4 times a year, but the use of this timer means that we don't have to visit this remote site to restart the system.

GB7GC NODE

It is hoped that the first stage of upgrading the link between GB7GC and GB7GH, which will separate it from the GB7GH/GB7LGS link, will be completed by the end of July. The final stage to upgrade this link to 9K6 operation may then follow later in the year.

GB7RR REGENERATIVE PACKET REPEATER

Bench testing of the equipment for GB7RR has been completed; Steve (G4FPV) and Nick (G6AWT) installed the system at the Cleeve Hill site on Friday 29th May. On-air testing from the GB7GH and MLVN sites will commence shortly.

GB7LGS TCP/IP MAILBOX

It is hoped that the first stage of upgrading the link between GB7LGS and GB7GH, which will separate it from the GB7GH/GB7GC link, will be completed by the end of July, with the upgrade to 9K6 operation following later in the year.

Work on providing a Modem access port at GB7LGS has been progressing slowly. The port was used successfully by Mark (G0USL) to carry out daily sysop maintenance duties whilst I was away during the first 2 weeks of May.

As previously reported in the groups April newsletter the GB7LGS Internet web site is now online at <http://www.gb7lgs.demon.co.uk/gb7lgs> whilst that for GB7GLO is now at <http://www.gb7lgs.demon.co.uk/gb7glo>.

Some exchange of mail between Internet users and packet radio users is now possible at GB7LGS, but the usage of this facility is strictly by prior arrangement with me, this is mainly to prevent messages from unlicensed (or unknown) persons being sent over the Packet Radio network. Email me (stewart@gb7lgs.demon.co.uk) for further details.

Stewart Wilkinson.
G0LGS

GB7GLO MAILBOX

I'm still getting applications for passwords. We do still have problems in this area, so the use of a password is a wise precaution. If you want a new, easy to read printout, just pop a Stamped Addressed Envelope in the post (QTHR), and I'll send you a password list.

Steve Perkins
G4FPV

TREASURERS REPORT

Although some other traders at this years 3 Counties Rally held in Worcester on 24th May reported sales as being well down on previous years, this was not the case for GRG. The group managed to sell a substantial number of surplus items raising almost £500, as well as collecting a number of subscriptions. My thanks go to Nick (G6AWT), Ian (G4HAQ) and Mark (G0USL) for their assistance on the stand, as well as to those members that donated items for us to sell.

Stewart Wilkinson.
G0LGS

WANTED

Gloucestershire Repeater Group and Fourpack still require various duplexers and cavities for 2m, 70cm and 23cm, as well as 23cm Antenna's (especially any shrouded ones). Any offers to Steve Perkins (G4FPV) or Nick Negus (G6AWT).

The group URGENTLY require a quantity (approx. 20) of ZN429E8, ZN426E8 or SSI6220 (8-bit D to A converters) in order to build a number of G3RUH compatible Modem boards that will be used to upgrade a number of our links to 9K6. Anyone that knows of a source for these 'obsolete' devices is asked to contact the Treasurer Stewart (G0LGS).

Following the successful 3 Counties Rally, further donations of Items for our next rally which will be in STROUD on August 16th will be most welcome, any offers of items should be made to Nick (G6AWT) or Stewart (G0LGS).

WORDSEARCH PUZZLE - WINNER

A number of people sent in solutions to the word search puzzle as published in the February Newsletter, many of those responding managed to find a substantial number of Words/Acronyms other than those that were originally intended to be present in the puzzle. The winner was Jim Ward (G4KXK) who managed to find 97 of the final tally of 152 Words/Acronyms that I considered acceptable within the scope of the puzzle. Jim will receive his prize (Precision Screwdriver Set) shortly.

Stewart Wilkinson.
G0LGS

PUBLICITY

RSGB members will no doubt have noticed several mentions of Gloucestershire Repeater Group in a number of recent editions of RadCom. You may be interested to know that some of these have been a direct result of sending copies of the Groups Newsletter to various columnists, whilst others have come about as a result of enquires following on from various discussions on the packet network.

If you see any mention of GRG in any other publications then the committee would appreciate being informed of the Name, Issue Date/Issue Number of the publication.

A COMMON DATE/TIME STANDARD FOR AMATEUR RADIO

Article submitted by Ian Galpin, G1SMD (QTHR).

This brief article is to spread the word on a proposal connected with the representation of Date and Time in Amateur Radio.

We write times using 'hh:mm:ss' or 'hh:mm'. Imagine the chaos if some countries used 'ss:mm:hh', others 'mm:ss:hh'. We now use the 24-hour format rather than 12-hour am/pm. The use of Local Time can cause confusion in an International activity such as Amateur Radio. We avoid this by using the UTC Time Zone. All these methods are defined in an International Standard called ISO 8601.

For dates every country seems to do something different. The date '04/01/80' means '4th January' in Britain, but 'April 1st' in America, leading to problems in computer programs, on QSL cards, in email, and in newsletters. In a few years time we will have dates like '02/05/03' and '04/09/05' to contend with.

ISO 8601 has a solution to these problems. The date is written using the full four digits for the year, with the order Year-Month-Day, and has hyphen separators. A leading Zero is used for '01' to '09'. In this way, a date cannot be confused with that written in any other format. Some people prefer to retain the Year-Month-Day ordering whilst writing the month as a three letter abbreviation or out in full.

The date is written in any of three easily interchangeable ways:

1980-01-04 1980-Jan-04 1980-January-04.

The ISO standard has already been adopted as ANSI X3.30 in America. In Europe, the standard has been implemented as a 'EuroNorm'. Under the CEN regulations every member state is required to adopt this EN 28601 standard (all of Western Europe, and most of Eastern Europe). This format has been defined in Japan in the JIS X 0301-1992 standard.

ISO 8601 has been in use in Scandinavia, parts of East Europe, and most of Asia for many years, and by astronomers for over 200 years. They realised, long ago, the advantage of working to a common standard, world-wide.

In recent times, IBM has promoted the ISO standard as part of the fix for the 'Year 2000 Problem' with computer systems. The 'full' ISO format solves this problem as well as the UK / US date ambiguity. DOS and Windows already have provision for the Year-Month-Day method built in, as have a number of Amateur Radio programs.

The Amateur Radio proposal recommends adoption of the ISO format for all facets of the Amateur Radio hobby: computer programs, log books, QSL cards, email and packet messages, Web Pages, band reports, newsletters, and so on.

The German magazine DUBUS has already adopted the new format, along with 'CQ-TV' published by the BATC; as has the Meteor Scatter software by OH5IY, and the new EME programs by VK3UM. G3SEK is rewriting all his software to cope with the Year 2000 and to adopt the ISO format. G0RUR is using it in his software in 1998. G3RUH has used it for very many years. The ITU are using the ISO format on their Web Page at: <<http://www.itu.int/>> and in some of their documents; as are the BATC in their Web Pages.

This is the only Internationally agreed format, and I recommend its use to all Radio Amateurs. Use a 4-digit Year and the Year-Month-Day order. We all understand the time '22:44:59'. There should be no problems with the date '1998-03-10', whereas '10/03/98' will always have a different meaning across the two sides of the Atlantic. ISO 8601 replaces 'dd/mm/yy' and 'mm/dd/yy' with 'yyyy-mm-dd'. Also note that Dates are written before Times in the standard.

The full proposal document was printed in DUBUS 1997-Q1 (Page 83 to 85) and is available on Internet at: <http://www.kirsta.demon.co.uk/iso_8601.htm>. Copies have been circulated to RSGB, ARRL, IARU and so on.

More information on the Year 2000 and on ISO 8601 issues can be found at: <ftp://ftp.funet.fi/pub/ham/misc/g1smd.zip> along with instructions for DOS and Windows to use the ISO format. Also included is an extensive list of sources of further information from magazines and on Internet.

There are articles on this subject in the last issue of 1997 and/or first issue of 1998 of CQ-TV (BATC), Oscar News (AMSAT-UK), Datacom (BARTG), and Monitor (ISWL).

A short general description of the ISO 8601 Date Format can be found at:

<http://shell.ihug.co.nz/~hermetic/cal_stud/formats.htm>.

There are also several files on this subject available from the GB7PFT 'CLIVE' server, and by the 'reqfil' service from several other AX.25 Packet BBS systems in the UK.

My own Web Page is at:

<http://ourworld.compuserve.com/homepages/dstrange/y2k.htm>

and my email address is: g1smd@amsat.org

This article is based on one that originally appeared in the 1998-March edition (Page 10) of 'Four Metres News' edited by Derek Thom, G3NKS. Thanks to G3NKS (4news@g3nks.demon.co.uk) and to G1SMD for permission to reproduce that article here. 'Four Metres News' has now also adopted the ISO format.

PACKET RADIO FREQUENCIES ON 2M

REMINDER: Normal 2m packet radio activity should be in the 144.800 to 144.990 sub-band.

It has been brought to my notice a few times in recent weeks, that some stations are still to be heard using the 144.500 to 144.700 sub-band for non-emergency (ad-hoc) packet. The latest UK Band Plan (as published in April 1998 RadCom) shows this sub-band is now allocated for SSTV, ATV, RTTY, FAX and Emergency comms.

The following table shows how the sub-band has been allocated for use in our area:

FREQ	Bandwidth		Node / BBS Callsign	Note
144.825	25 kHz	High Speed Only	GB7LGS	Not currently used
144.850	12.5 kHz	BBS user access	GB7PZT, GB7TCM, GB7MAD	GB7TCM is currently on 144.950
144.8625	12.5 kHz		GB7FD	
144.875	12.5 kHz	TCP/IP user access	G8WPF	
144.8875	12.5 kHz	Secondary DX Cluster	GB7HD	
144.900	12.5 kHz	DX Cluster user access	GB7DXC	
144.9125	12.5 kHz	user to user		No Node / BBS access
144.925	12.5 kHz	TCP/IP user access	GB7LGS	
144.9375	12.5 kHz		GB7GC, G8RDT	
144.950	12.5 kHz	BBS user access	GB7GLO, GB7ST	
144.975	25 kHz	High Speed Only	GB7PZT	

All packet radio users are urged to move to one the new sub-band and to ensure that their transmitters are correctly adjusted for 12.5 kHz operation.

It has also been noticed that occasionally one or more packet stations appear on 145.500 MHz (some transmitting at frequent intervals for long periods of time). As 145.500 MHz is the frequency to which a number of different radio's revert after a power interruption, it is suggested that those people that run an unattended packet station using synthesised radio equipment regularly check that their system has not inadvertently moved frequency. Surges and short interruptions to the mains supply may cause the radio to change frequency while other equipment remains unaffected. A number of people that regularly listen on 145.500 MHz do not have the facility to decode packet transmissions in order to identify and inform the station involved.

DEVIATION MEASUREMENTS / FREQUENCY CHECKING

Nick (G6AWT) and Stewart (G0LGS) will be running a workshop to check the deviation and frequency of VHF / UHF FM rigs at the Cheltenham Amateur Radio Association's (CARA) meeting on Friday 3rd July (19.30 for 20.00 at the Prestbury Library). You will need to bring the Power Lead (and PSU if your equipment is not 12V DC or 240V AC operated) and if possible flying leads to suit the Microphone (or other Input) and Loudspeaker / Earphone Socket on your rig (to enable connection to the test equipment).

The meeting will begin with a briefing about deviation, the background of the move to 12.5KHz spacing, and the consequences of not having our rigs correctly set up for the new channel spacing. Tea / Coffee will be available for a nominal charge.