

Digicom

The Official Bi-Monthly Magazine
of
The Midlands AX25 Packet User
Group

MaxPak

Issue: 67
June / July 2003
Next Issue: August 2003

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www.maxpakgb.org.uk

Chairman's Jottings

Hi all.

I would like to publically introduce our new Digicom Editor, Barry, G0OJR whose first issue this is. Having seen a preview at our last committee meeting, he has done some welcome revisions to the layout and I think you will all like it.

In addition we have chosen to send it out in PDF format rather than in Word Format. I think all of you will probably have Adobe Acrobat Reader on your systems and in any case if you've not, its available from plenty of locations free of charge.

Sending it in PDF format will not only reduce the file size and reduce the problems that some of you have had in opening Word Files, but also result in clearer sharper pictures.

Anyway, I'd like to inform you all that direct Telnet Access to GB7MAX is NOW AVAILABLE on Port 4001 instead of Port 6300 which caused numerous lockup problems!

My Co-Sysop, Dave, M0DCM has done extensive testing over the past couple of weeks and we both feel it is now stable enough to allow public access.

If you already have telnet access to my XROUTER BLOX node on Port 2323, please use exactly the same callsign and password to access FBB directly.

I think you'll find it even faster than firstly going through the node.

However access to the node on Port 2323 will continue to be available should you wish to do node hopping etc.

Please note that if you access directly via Port 4001, you will NOT need your random 5 character Password as this port bypasses that system totally and you will immediately get to the standard GB7MAX sign on screen.

Plewise also note that if you wish to use Binary on Port 4001, e.g. compressed upload/download in Winpack and also any YAPP file transfer, that you need to precede your callsign with a dot to tell FBB that you wish a binary capable connection.

e.g. .g0cng

A sample connect script for winpack is below:

Sample Winpack BBS Script for Telnet Connection to GB7MAX on Port 4001

```
HOTKEY F2
TITLE Telnet connection to GB7MAX on Port 4001
SEND C 81.7.12.236:4001           ;(IP Address of GB7MAX) ( or you can use SEND C gb7max.ath.cx:4001)
WAITFOR Callsign :
SEND .g2xyz                       ;(Substitute with your Callsign. Note the preceding dot to tell FBB to use Binary capable
connection)
WAITFOR Password :
SEND abcdefg                       ;(Fixed Telnet password issued by sysop; same as your Xrouter access password on Port 2323)
WAITPROMPT                         ;(waits for BBS Prompt)
```

PS You may log onto Port 4001 using just your Callsign, but you will have Read Only access to GB7MAX. Please send a message to Sysop (i.e. G0CNG) to request a password for full Telnet access.

If you are not already on Telnet and would like access, please send me an email to chris.g0cng@nasuwt.net or drop me a message on GB7MAX.

As always, I'd like to emphasise that Radio Access will continue to be available as present. The Telnet is merely an addition and in NO WAY is it going to replace radio!

I am hoping to add a 4m 1K2 radio port on 70.4875 MHz to GB7MAX sometime over the next couple of months as soon as time and equipment permit. I already have a Pye Phillips MX294 Low Band transceiver and a Tiny 2 TNC and have just ordered the required crystals. Since several other local nodes have, or are shortly going to, put on 4m ports on 70.4875 MHz its makes sense for BLOX/GB7MAX to have a port on this frequency to enhance local links, both AX25 and TCPIP.

Our Secretary, Miles G4GSB is also to open a node at his QTH in Madeley, Telford over the summer which will enhance further radio links into GB7PMB in Newport, Shropshire. Proposed User frequencies are 144.950 MHz and 70.4875 MHz with a 9K6 70cms link to WV11.

GB7PMB has had a new 2m/70cms Watson W50 Colinear antenna and Duplexer for its 144.950 MHz and 433.650 MHz User Ports. Please note that 433.650 is available on an attended only basis whilst the NOV is applied for. In addition, it is hoped to QSY the present 4m port on 70.3375 to 70.4875 MHz over the summer holiday. This should hopefully permit a direct link to the new GB7BM node on that frequency on Darby's Hill, Dudley.

In addition I hope to spend some time during July in setting up TCPIP links from BLOX using XROUTER's excellent facilities for IP Routing.

Well, I think that's about all for this issue. It merely remains for me to wish you all a very good Summer, whatever you may be doing, home or abroad.

73's Chris G0CNG, sysop of GB7MAX

Editor's Comments

Hello everybody, well this is my first attempt at being the club magazine editor and I sincerely hope that it is to the high standard set by previous editors.

First a bit about myself; I am 57 years old and have held my amateur radio since February 1989 and I have held the chairmanship at Willenhall club and was a founder member and chairman at the new Bushbury Electronics & Amateur Radio Society.

My other hobbies and interests include carp fishing, photography and caravanning
I enjoy electronics and homebrewing ham equipment.

Now to the important bit; If you have any articles or items you would like to see printed in Digicom in future issues, please forward them to me but as usual the Editors DECISION will be final as to the suitability of material published.

Well that's all from you editor for now and I look forward to hearing from you in the future.

73 De Barry G0OJR.

How WLANS Work Part 2

WLAN Configuration

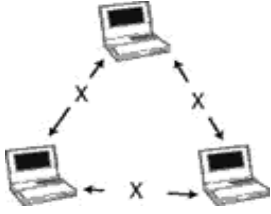


Figure 5. Independent WLAN

The simplest configuration is an Independent (or peer-to-peer) WLAN that connects a group of PCs with wireless adapters.

Any time, two or more wireless adapters are within range of each other; they can set up an *ad hoc* independent network (Figure 5). These on-demand networks typically require no administration or preconfiguration.

This mode of operation will be familiar to all radio amateurs who have used point-to-point AX25 Packet Radio.

Repeaters:

Access points can extend the range of independent WLANs by acting as a repeater (see Figure 6), effectively doubling the distance between wireless PCs.

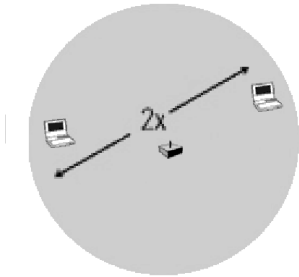


Figure 6. Extended-Range Independent WLAN Using Access Point as Repeater

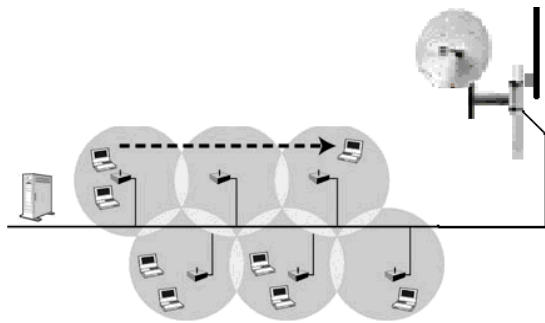


Figure 7. Infrastructure WLAN

In infrastructure WLANs, multiple access points allow commercial users to efficiently share local network resources linking the WLAN to wired and long distance Wide Area Networks (WANs) and the *Internet*.

The access points not only provide communication with the wired network but also manage traffic in the immediate *wireless neighbourhood*. Despite the restricted range at the very restricted power levels due to (IEEE 802.11) Multiple access points can still provide wireless coverage for an entire building complex, small village, university campus or housing estate.

Amateur Enhancements

Only the lower 50 MHz or so of IEEE 802.11 WLAN channels (60%) overlap the 13cms Amateur band. Also U.K. amateur radio licence holders will be generally prohibited from accessing the Internet (or any other non-amateur network) via Internet Access Providing WLANs.

However some concessions regarding *limited internet access* have recently been announced and the use of unlimited antenna gain and up to 26 dBW (400 peak watts) offers some quite extraordinary *performance possibilities* for amateurs using this mode.

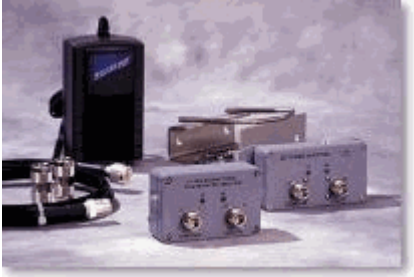


Figure 8. A Commercial 2.4 GHz Masthead Preamp & PA amplifier

This 500 mW -amp with a small PA to increase the range of outdoor links. These kinds of units can be used at masthead to compensate for cable loss (of say 0.5 dB per metre) due to mounting the antenna far from the WLAN transceiver at the remote top of a tall building or mast. Breezecom's AMP-500 comes with a DC power injector (for powering the unit up the coaxial download), five foot cable and two, "N" male-to-male adapters.

Strictly for the more adventurous, modern solid state devices offer the realisation of high power amateur linear amplification up to the full legal limit.



Figure 9. A Commercial 2.4 GHz 61 cms Dish Antenna

Typical of the potential of smaller Satellite Dish amateur conversions, the Aironet AIR-ANT3338 Solid Dish Antenna is a commercial 24 inch unit designed for outdoor directional connections and according to manufacturer's data offers a H/V beam width of 12.4° and gain of 21 dBi with approximate outdoor range at 11Mbps of 11.5 miles (18.5 km) using 50 ft (15 m) low loss cable and the same type of antenna at each end.

Blue Tooth



Figure 10. A Bluetooth Antenna

Bluetooth is a forthcoming Wireless Personal Area Networking (WPAN) technology which has gained significant industry support and will coexist with most wireless LAN solutions. The Bluetooth specification is for a 1 Mbps, small form-factor, low-cost radio solution that can provide links between mobile phones, mobile computers and other portable handheld devices and connectivity to The Internet. This technology, embedded in a wide range of devices to enable simple, spontaneous wireless connectivity is a complement to wireless LANs - which are designed to provide continuous connectivity via standard wired LAN features and functionality.

M0DCM Dave – M0DCM@GB7MAX.GBR.EU

Members Letters, News & Comments

This section is for you the member, where you can send in any Letters, News, or Comments that you have for this section.

I received the following which maybe of aome interest to some of our members -

Hi There.

Please excuse my direct approach...

I wonder if you would be interested in a booklet "Something In The Air" I have written about "Rugby Radio Station" or GBR as you may know it. My booklet is a fond history of this remarkable place, a place that many people know of (drive along the M1 near Rugby and you can't miss the forest of 820 foot high masts) but few know it's secrets. The booklet has received much media interest in local papers and the author has appeared on the TV show "Heart Of The Country" talking about Rugby's Radio masts.

The booklet is available for just £1.50 (send cash or cheque, made out to 'Pete Chambers') to: Something In the Air, 110 Richmond St, Coventry, CV2 4HY.

Local radio enthusiast "Joe Hackett" described the book as "Brilliant" and "Too good to miss"!

Maybe your members would be interested (and maybe you would be kind enough to mention it in your next newsletter), as you can see I'm not doing this to make money (hence the price of just £1.50) I just want people to know of this fascinating place before it is decommissioned in a couple of years time.

Many thanks...Pete Chambers.

73 de Joe

E-mail me: joe@g4vva.freemove.co.uk

My web site: www.g4vva.freemove.co.uk

MAXPAK Modems
Price list for 2003
Specially reduced prices
Prices include P & P

MAX-01 1200 baud PACKET MODEM
Baycom type modem (3 IC's), PCB, circuit diagram & parts list plus all the components required to populate the PCB.

Members price £15.00
Non members price £20.00
Ready built and tested modems available
£5.00 extra

PRE DRILLED AND PUNCHED CASE
including installation kit etc.

Members price £5.00
Non members price £6.00

MAX-02 1200 & 9600 baud MODEM.

This unit is available and comes complete with, PCB, all the components required to populate the PCB, full construction details and agw software on 3.5" floppy disk. FOC

Members prices

Kit including PCB/power kit £30.00
Pre drilled case £ 5.00
Ready made and tested modems are available
for £10.00 extra.

Agw software on 3.5" floppy disk. FOC

Non members prices

Kit including PCB/power kit £40.00
Pre drilled case £ 7.00
Ready made and tested modems are available
for £10.00 extra.

agw software on 3.5" floppy disk. FOC

The MAX-01 has been tested with,
Windows 3.1x, Windows95, Windows98
and Windows ME

The MAX-02 will **NOT** work with Win 3.1x
but has been tested with,
Windows95, Windows98
and Windows ME

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