

Packet Radio

Roundup

On the 28th July, over 200 delegates from 20 countries and four continents, yours truly being one of them, converged on the University of Surrey for the annual RSGB Data Symposium, a part of DataSpace '89. This excellent venue is used for many international conferences, and full marks must go to the RSGB and AMSAT-UK for their organising efforts. After we'd all had our fill of morning coffee and chocolate biscuits (nice after an early journey!), Mike Dennison G3XDV, the Chairman

a QSO with G1ZZZ who is a two-node hop away. At each end, 144.650 or 144.675 MHz at 1200 baud is typically used as the user port, but the nodes pass information to and from using 1299 MHz at 9600 baud rather than the alternative path on 2m which normally also exists as a lower quality route. The same goes for BBS forwarding, a 'trunk route' being used, with dedicated National Trunking System mailboxes, with user access on the satellite BBSs fed from the NTS BBS.

neighbouring nodes. If you can, get some gear for other bands to provide a linking service, otherwise think hard whether you're providing a service or just more QRM!

Speeding Things Up

The symposium message to end users suffering from congestion could be summed up as:

- 1) Spread Out — all packet activity doesn't have to be on just one channel or band, we do have multi-frequency BBS user ports in many areas and interlinked nodes with several user frequencies from a site.
- 2) Use Microwave Bands — these can be very useful for high speed point to point datacomms links.
- 3) Use Quieter Bands — Surplus two-way radio equipment is available for only a few pounds, perfect for frequencies such as 4m, and transverter for the home constructor.
- 4) Use A Beam — if you're linking into your local network node or BBS, beam at it instead of using an omnidirectional aerial, with associated reductions in transmitter power and receiver gain/squelch level.
- 5) Run Duplex — If you have the facility for this then on a quiet channel it can provide a high data rate (it is however VERY antisocial to set your TNC to FULLDUP ON on a busy channel).

Chris Lorek G4HCL puts the word around about getting better coverage out of the system.

of the RSGB Packet Working Group, opened the symposium which dealt with topics such as 'AMTOR Joins the Network' by G3PLX, 'A UK Answer to Mailbox Software' by Steve G4YFB (who was described as the man who "thinks in machine code"), 'AMPRNET — One Year On' by G6KVK, and 'Packet Radio in Scotland' by G4AUP. These subjects brought us up to lunch. The comprehensive papers for these will be published in the DataSpace '89 proceedings, available from the RSGB or AMSAT-UK. The afternoon was taken up mainly with future developments, such as 'Packet Radio, Which Way Now?' and 'How To Speed Up The Network'.

Interlinking

As many of us will know, packet radio communication using just one frequency can be very slow. Throughout the UK, and indeed the world, network node and BBS system operators are adding new frequency ports to 'spread the load' as well as providing high speed 'trunking' routes. A typical node example is shown in Fig.1. Here G1AAA is having

Messages to Sysops

The most prominent message given to delegates at the Symposium was to get links off the busy end-user frequencies of 144.650 and, in some areas, 432.675. The word to node and BBS sysops was "Switch off your wide coverage 2m port and go and do something more useful instead". It was recommended that user access nodes should be placed in the middle of towns, not on top of hills, with the addition of "It is absolutely crazy to provide a digital repeater on a mountain top — these sites should instead be used for microwave inter-node links". I myself know of at least one network node that shifted QTH to a hill top giving a wide coverage, the result — it became so 'slow' as to be almost useless, and an attenuator had to be fitted in the receiver together with a reduction in the transmitter power. Local factors must of course be borne in mind here, each area must be planned individually. But if you run a single port node or digipeater, especially from a good RF location, think 'network' and talk to the sysops of your

The Evolving Network

Maybe soon we'll be running our TNC and RF beamed just into our local network node; an example of this is the Wakefield area where the GB7WRG mailbox is hidden away on 1299MHz, and is linked to the local nodes WP2 (2m), WP4 (4m) and WP7 (70cm), as well as via RF links to other local nodes. All a user needs to do is connect to any of the nodes, then enter 'CGB7WRG' or 'CWRGBBS' and the network automatically handles the routing. My thanks to Ken G3SPX for this information. Ken is the Secretary of

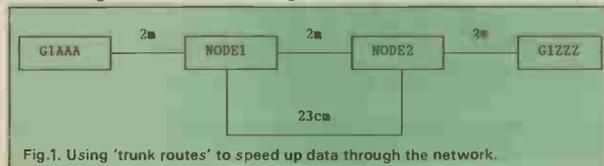


Fig.1. Using 'trunk routes' to speed up data through the network.