Digital TV so far

By G8MNY (Updated Jan 08)

(8 Bit ASCII Graphics use code page 437 or 850)

In Croydon, South London, I am line of sight to main Tx for London, but DVB-T (Freeview) multiplex channels are still about 25dB weaker here than the 1MW ERP analogue signals.

To cut down on the number of boxes connected to the TV, I use a Freeview VCR (now obsolete as the freeview Data format has changed) in front of the main 16:9 Plasma 42" TV, fed from a large 25 element loft Group A aerial which I have broadbanded a bit by trimming elements for a more even signals display on the STB/VCR, giving 25-27dB S/N on all muxes. Note that 17dB S/N is the no go error threshold.

I used another identical STB/VCR a 1st floor bedroom from a small 4 element set top aerial into an standard 4:3. This gives similar good signal results.

PICTURE QUALITY
On the big TV, picture definition is generally higher than I expected, with the 16:9 format apparently giving about 7MHz (720 pixels/line) resolution over the RGB SCART feed.

Of course there is no visible noise (snow) with a digital picture, just other artifacts! In fact real falling snow can't be encoded in Mpeg as there are no similar frames to allow for compression!

However the pictures are not @ the 50Hz new frame rate of true interlaced analogue. e.g. the net frame rate is often very low! So parts of the most visible picture are updated 1st then a few frames later the darker bits!
A actor's face half in the dark turning, will appear stretched out until the darker bits get updated. A very strange effect when it happens & sometimes repeatedly!

But this is a rare affect, the more usual effect will be highlighted forehead detail not following the head movement at all well, or a shaky camera shot
with parts of the picture cut out & moving independently.

Also there is what seems to be data bandwidth competition (bidding) on any of the broadcaster MUXs; so that occasionally a NEEDED new "I" (full) frame for a shot change has no bandwidth available for say 1 second, so the picture just hangs for that time with no errors or sound faults.

As far as I know these 2 affects are all the result of the EXTREME MPEG OVERCOMPRESSSION that the broadcaster has chosen to use for that programme, & are nothing to do with weak signals & error rate that cause the [] blocks to appear & "glitch" noises in the sound. I no longer get those after a new coax feed to the loft aerial.

DATA RATES
From a multi Mux Tx site stats printout I saw (published on the Internet) the typical data rates per channel vary from an extremely low 50kB/S to a peak of 6MB/S in any 5 mins giving means of 1-2MB/ch. This is still extremely low compared to the uncompressed >200MB/S from a studio camera source. (a HDTV source is 1200MB/S)

BBC LIPSYNC
Since using the larger TV, poor lipsync problems are far more noticeable. Other programme makers don't seem to suffer from this, it definitely is a BBC thing. I know the plasma TV might add a 1/50 or 1/25S picture delay in its picture reformatting & hence add to the problem, as might the larger screen make the lip movements more apparent, but why should this be just a BBC thing? I have even seen reasonable lip sync degrade during a BBC interview, why? I have even seen the same problem with digital cable system on BBC channels! Are the other broadcasters' running 1/25S delayed sound to compensate for large screen TVs, or is the BBC output just inconsistent? I noticed they have improved their act recently.

DVB-T TV channels.
Since the addition of loads more junk TV channels the STB's programme guide is corrupted once/twice a day if it is put into standby. This seems to be centred on some of the channels that keep swapping their allocations (on & off service in the menu guide). I assume they actually go missing from the Tx guide menu for that mux I am using for a few seconds & that my STB instantly sees the change & flags up it need for a rescanned (early STB software fault?) each time.

Y don't U send an interesting bul?

73 de John G8MNY @ GB7CIP