

# Pro Talk

## Bill Wright bemoans the re-tune nightmare that we are stuck with forever, thanks to a major flaw in the DVB implementation



Bill Wright

You never have to retune a Freesat box, do you? The postcode goes in and it puts the correct regional variation into the correct Logical Channel Number. As channels come and go or change multiplex, every receiver takes the change on board without human intervention.

Contrast this with the tuning shambles that is digital terrestrial TV.

An example of the chaos occurred in South Yorkshire, where a very strong signal sweeps across the county. It's the BBC mux from

Belmont, and we don't want it. But as it's on channel 30, every DTT receiver finds it before anything else. At that point anything can happen, because the DVB spec (unlike Freesat's) doesn't lay down a tuning protocol that every manufacturer must follow. Some receivers assign Belmont BBC1 to LCN 1 (and so on) irrespective of the much stronger BBC mux from Emley Moor on channel 52, which carries the correct sub-regional output. Some receivers decide between the two alternatives by assessing the strength and quality of the signal, which is fair enough as far as it goes but it will probably swap over every time the wind changes, and it doesn't take into account the viewer's regional preference. Some boxes allow a manual tune but this is beyond most customers. Some boxes like to do an automatic retune periodically, thus deleting any previous manual setup. All the customer knows is that reception degrades overnight, and so I'm on the phone: 'Unplug the aerial, wait until the autotune bar is half way up then shove it in quick and hope for the best.'

Other parts of the country have worse problems. In the Ribble Valley Granada and Channel 4 have been replaced for many by Welsh ITV and S4C! A hapless spokesman for Digital UK could only say that viewers should 'instruct their Freeview box to set English channels as a preference'. What? How do you do that?

If the DVB specification had included a simple postcode-based system for transmitter selection, all this could have been avoided.

There's an implication from the powers-that-be that these problems are just temporary, but the opposite is true. Post-DSO transmission powers are far higher, so vast areas of overlap will appear. Evidence of this comes from Ireland, where much of the east coast now has good reception of UK TV from Winter Hill, Lancashire. And until DSO the Hannington transmitter has a null to the east, so there's no overlap with the Crystal Palace transmissions. After DSO there will be terrible chaos between them. On the M4 corridor there will be a huge Oxford/Hannington overlap when the post-DSO transmissions start.

What can we do as installers? A bandpass or notch filter might help, but often the wanted and unwanted muxes are closely interleaved. Attenuation might work but, of course, it reduces the safety margin of the wanted signals. Aerial installers, TV retailers, and viewers are wasting a fortune nationally on unnecessary service calls.

This fiasco has come about because in the early days of DTT it didn't occur to those who designed the system that coverage areas overlap. It's a fundamental fact that transmitter coverage can't be tailored exactly. Radio signals don't stop dead at the county boundary, much as governments would like them to. This isn't new knowledge. When I was a kid we all listened to Radio Luxembourg, to the annoyance of the BBC. What a pity those experts didn't understand this basic fact about RF propagation. If they'd talked to an aerial rigger or two, it could have made such a difference. Processing power and data storage are incredibly cheap now. The tools are available; what a shame no one thought to use them. Follow Bill Wright's switchover musings at [www.paras.org.uk](http://www.paras.org.uk)