From: Andy Baker
Sent: 06 August 2007 09:57
To: Not relevant to request
Not relevant to request

Cc:

Subject: Major Incident Yesterday Sunday

Attachments: Major disruption to FM & AM services, Sun 5th August 2007

Context: (for receipients that are not familiar with the BBC's Radio distributuion)

We use Siemens under the TFC who sub-contract Cable & wireless to provide the distribution of our FM & AM UK wide Radio services (R1-R4 FM, R5L and R4LW) via **DUPLICATED** distribution circuits known as 'Path 1' and 'Path 2' that are routed independently e.g. the idea is that neither path should share common equipment rooms, fibre routes etc etc apart from when they separately arrive at each transmitter site. s.43
s.43 **This is the regularly serviced, washed and polished Mercedes-Benz equivalent distribution service.**

In addition, outside of the Siemens Technology Framework Contract the BBC has a **'emergency' third 'single ended'** system known as RBS (Re-Broadcast Standby). This system relies on each main transmitter picking up 'off-air' the previous transmitter and re-radiating the incoming service s.24
This system is designed to get **'information' to our audience rather than 'full quality audio'** hence it is in Mono rather than Stereo, and as the signal is repeated at each transmitter the quality worsens, such that when you get to the extremes of the UK the audio will be quite 'hissey' (as well as being in Mono). Further this is a single-ended solution such that a single fault in the chain will render that service shutdown beyond that point. It is not designed to be used for any length of time without staff attendance at each Transmitter site. **So this is the cheap 'Travant' that is serviced once a year compared with the regularly serviced Mercedes above which we should be able to rely upon.**

s.24
s.24

What happened on Sunday?

The detail is contained in the attached email from the Broadcast Duty Manager, however we were alerted to the fact that there was 'drop-outs' on the audio of at least R2, R3 and R4 FM (as they are carried in the same digital NICAM multiplex) form about 1230 on Sunday. This got worse, affecting all UK wide Analogue networks (FM and AM) theses dropouts were present on both Path 1 and Path 2, initially suggesting that it may have been a fault at origination in BH so the BDM changed over to our alternate NICAM coders to no avail. The DTM reported that Cable & Wireless had traced the problem to an over heating apparatus room in s.24
The drop-outs were now so severe that both Path 1 and Path 2 distribution circuits were unusable.

At 1415 the BDM took the correct decision to force the transmitter network to RBS 'the Travant network' to restore continuous audio across the UK albeit in Mono as he had received a number of complaints. The UK wide network remained on RBS (in Mono and Hissey) until 1615 **2 hours!** Unfortunately, there was a problem with the RBS system (which had previously been tested as OK) at the Birmingham Sutton Coldfield transmitter which meant that North, East and West of Birmingham **Radio 1 was Shutdown** until NGW were able to attend site and manually 'plug around'. This was achieved by c. 1450 **So Radio 1 was not available to our Audience in the Birmingham area and beyond for c. 50 Minutes!**

It has been confirmed by the **transmitter alarms from NGW and observing the CRC checkers at BBC Manchester, that the drop-outs were affecting both paths.** The fault on BOTH paths cleared when the overheating problem at s.24 was resolved.

For information I took at least two calls from friends in Manchester and Scotland (yes I do have some!) who wanted to know what was going on with then BBC services one of them had re-tuned to a commercial radio station from R2 as they were fed up with the drop-outs - this is not good!

Questions

It would appear that Path 1 and Path 2 both go via s.24, why is this?

Could this be because of the re-routing that was done getting on for a month ago to avoid the flood issues ' up North'? If so why has this not yet been fixed, or why wasn't this (and any other sites where both paths are present) more closely monitored?

This is the forth? Major incident that has caused the BBC to have to use its own distribution methods **due to failure of both Siemens provided distribution paths** - From memory these are , SW England, Scotland (at least twice) and now the whole UK!

In my 25 years in the BBC I have never seen both the quantity and high duration of such major faults that we are experiencing currently (in the last c. 1 year).

Information required

I would like a full report into exactly what happened, why the system was not more closely monitored, a list of any sites where either currently or permanently Path 1 and Path 2 share the same room/aircon/power supplies etc. and what steps are to be taken to avoid a repeat of this major incident that happened yesterday.

Best

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