Media Bureau Docket Number 13-249

I want to express my appreciation to the Commissioners for this opportunity to comment on what can be done to clean up the AM band, and an especial thanks to Commissioners Pai and Clyburn for spearheading this. I have been in broadcast engineering much of my adult life with experience in both AM and FM stations. My previous job was a trio of AM stations in the Minneapolis/St. Paul MN area- two directional and a diplex, which I took much pride in maintaining to high standards of both RF compliance and audio quality.

To address the problem at hand, much needs to be done and it will take a long-term approach as I'll soon show. Many of the band's woes are self-inflicted, and of those areas which aren't, not all of them are under the purview of the FCC:

Lack of good programming, increased competition, lousy radios, poorly maintained facilities, crowded band, and noise generating appliances such as computers, LED and CFL lighting.

The first three are entirely beyond the FCC's scope, and the fourth could be, unless said lack of maintenance causes interference. Mostly, though, it merely causes reduced coverage. Many complain about the lack of good AM radios and would like to see the Commission mandate better standards the way they mandated UHF reception on TVs in the 1960s. But because of interference, both from dial crowding and hash from various digital devices and newer forms of lighting, weaker stations can often no longer be heard in the first place, and even some of the stronger ones suffer as well. Manufacturers make narrow-banded, nearly deaf AM sections as a result. Only for the most local stations could better radios actually make AM listening a pleasure.

One thing the FCC has done is allow AM stations to operate FM translators, but I have to wonder if we're defining the problem properly. Driving listeners off the AM band isn't really solving the problem. It does preserve the station's ability to serve its audience in cases of increased interference or restricted operating hours, but it does nothing to actually clean up the band. Are we out to clean up the AM band so it's more usable again or not?

If we want to move a good share of the incumbent AM broadcasters why just give them some low power crumbs? The best bet is an expanded FM band. VHF channel 5 and 6 spectrum could be licensed as a shared service. There aren't too many digital low band TV stations and even in areas where there are there is still 6MHz to work with which could accommodate many, if not all who would like to move. Remaining stations could increase their power for better coverage.

In an earlier comment period on the feasibility of an expanded FM band some said there were no receivers. Actually there have been quite a few. Mostly these have been clock radios and portables which contiguously tuned from channel 2 audio up to 108MHz. They've been available since the late 70s at least. In this proposal it's about being able to tune from 72 (vs. ~60) up to 108MHz. Many existing radios probably only need a jumper cut to receive that low considering that's the bottom of the

Japanese FM band. It may not bring immediate relief, but with converters, conversions, and new radios it should be viable in time, especially if the FCC mandates the X-band post haste on new radios. It does not entail a radical redesign unless the new band gets designed from the ground up as totally digital.

Speaking of digital, it appears to be more of a hindrance than a help on the AM dial. The HD carriers are much too broad to not interfere with second adjacent channels and are themselves not sufficiently robust to overcome much of the noise levels found on the dial. If any sort of digital is to be done on this band it'll need to be a hard cutover at a future date, especially after prior interference reduction.

Doubtless there are those who will petition to allow daytimer and low watt night time stations to have more power at night. If this is done, I recommend it be tried on an interim basis to give us a real world experience. This has been done before. Back in the mid-1960s stations were allowed to go to full power at 4AM regardless of local sunrise. If it turns out well it could be made permanent, otherwise it should be rolled back. I recommend limiting it to stations which are the only ones serving their markets, or towns with four or less stations since 1) rural areas tend to have the most to lose when the local AMs power down or off, and 2) an across the board increase would create massive interference. We could start with 50% of day power or 1kW whichever is less over a period of two years.

Similarly, when class C AMs were given 1000W at night the interference actually made coverage worse. They should be rolled back to 500W or 250W again. Sometimes less is more.

If we want to save the AM band as a viable service in and of itself without translators and expanded FM, then something must be done about interference from various digital as well as CFL and LED lighting devices. I have pulled apart a few wall warts only to see the RF filtering totally missing- jumpers where RF chokes should be and open holes where capacitors should be. This is directly under your jurisdiction. Radiation restrictions regarding all of these types of devices needs to be tightened and enforced. Attrition will take care of the older hash generating items.

The FCC also technically regulates power line noise and there have been a few enforcement actions in the past handful of years. Please step this up as well. This would be particularly helpful for mobile listeners, and in older neighborhoods without underground power lines.

Others have given some good suggestions which I support as well, such as reducing the percentage of coverage to the city of license and/or smaller, less efficient radiators due to limited availability of relocation sites due to increasing urbanization and eliminating the ratchet clause. Class A stations should be protected only double their daytime radius at night. Some have suggested eliminating all skywave protection, but I fear the whole band will sound like a graveyard channel. But the primary emphasis still needs to be on digital and lighting hash elimination.

Thank you for your consideration,

Scott Todd