

September 18, 2014  
 Comments on RM-11727  
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There are many concerns regarding increasing power to a level of 12000 watts ERP at a relatively low antenna height of just 100 meters HAAT: These include increased co-channel and adjacent channel interference for area receivers, ?front-end overload? of nearby receivers tuned to other frequencies, significant RF radiation (as a bio-hazard) in the immediate vicinity of the tower base, and probably a significant increase in power consumption in an era when electric bills are significantly high and on the increase. The result may only be ?oversaturation? to the existing service area and increased interference in the FM band (and otherwise) contradicting the original intent of the power increase. (Those of us who remember the ?before and after? of the AM Class IV nighttime power increases from 250 to 1000 watts in the 80?s will probably agree the Class IV?s had a more listenable nighttime signal before the increase. This was because, before the increase, there was much less interference among those stations.)

There are many factors which contribute to good FM broadcast reception beyond radiated power: These include transmit antenna height and design, interference from other signals (co-channel and adjacent channel as well as ?out of band? transmissions), noise, terrain, climate, foliage, and various transmitter, antenna, and receiver problems and anomalies. Indeed many reception problems are within the receiver and beyond the control of the broadcaster. All of this needs to be addressed to optimize FM signal transmission. It is not just transmission power alone.

Thus it may be time for the Commission to prudently examine the entire structure of the FM Broadcast allocation system including distance separations and various Classes of operation. Small reductions of the physical separation limits of higher powered stations should be studied. Small amounts of power reduction (10 to 20 percent) of certain Class B and C stations should also be reviewed and may be found to have little detrimental signal effects but a significant savings in power cost. A benefit of this would be less interference in fringe broadcast areas. Use of high gain antennas to reduce transmitter power output, while practical, may unintentionally contribute to more interference in the fringe areas versus a lower gain system which would put more signal into the station?s ?practical? service area. Thus, if stations were allowed to adjust their power output to more intermediate levels instead of maintaining maximums (without jeopardizing their ?Class? designations and separations) they may benefit from signal optimization while reducing interference to bordering co-channel and adjacent channel stations thereby enhancing those operations. An added benefit would be a decrease in the operating cost in terms of electricity and maintenance.

The goal of the proposed Rule Making seems to be a well-intentioned increase in signal coverage and, therefore, listenership of the particular stations affected. But, in reality it could penalize stations that are operating at less than capacity by moving interference into their previously protected areas. Ironically, at less than maximum power they still may be effectively providing good service to their licensed area while not contributing needless, interfering signal to sparsely populated areas that are trying to receive other signals. So these stations should be penalized for this by making them ??3.215 facilities??

The Commission should first consider looking at this from the bottom up: increasing present Class A facilities in all zones to 6kw watts ERP that are operating at the older 3kw ERP limit so that they can continue to remain competitive and to make the entire system as efficient and uniform as possible. Hold back on the temptation to ?run up? the transmitter power, increasing the effects of interference for everyone and eventually ruining the entire system.