

distinct communities within their coverage area. Additionally, directional stations often have two or three lobes in their patterns. There are also situations where a suitable antenna site for a translator that would best serve the station's coverage may be unavailable, infeasible, or prohibitively costly. Thus a single FM transmission may only serve one of two or three localities needed to make the station viable (as it may have once been before modern interference and fidelity expectations).

Using multiple frequencies could easily become spectrum-inefficient, especially if a broadcaster were to seek continuous coverage through significant overlap of coverage. Similarly, the unfettered use of many transmissions in an attempt to replicate the coverage of a typical full-power FM would also consume excessive bandwidth and severely limit the number of AM stations which could have FM translators. The following is proposed:

- An AM station could have up to three FM translators on the same frequency and;
- Such translators, in addition to being within a 25-mile radius of the transmitter could in no case be more than 25 miles from each other and;
- The total transmitter power of all three cannot exceed a sum of 300 watts with no single translator exceeding 250 watts, and;
- All such translators would be linked to the AM license, as proposed in this NPRM, but one would be designated by the station as “Primary”. The Primary would be the one that would have priority and still be granted if the others were precluded by mutually exclusive translator applications that did not preclude the Primary.
- Synchronous transmissions would not be required, but would be encouraged.

14b: The rules for coverage of FM translators relaying AM stations are generally appropriate, but there are situations that can present special difficulty – extremely deep nulls in a directional pattern, and towers that may be 25 miles from parts of the City of License.

A deep null can be a technical obstacle to obtaining a translator with meaningful coverage, as there is often an area in the middle of the geography close to the tower that must be avoided. Additionally there is a definite economic disadvantage of having coverage that reaches a city by leaves out a few neighborhoods, especially in an era where listeners have become used to the typically non-directional coverage of FM radio.

It is proposed that AM stations' 60 dBu coverage via FM translators must be:

- Within the 2 mV/m daytime contour and entirely within 25 miles of the AM station's transmitter site, or;
- Within 5 miles of the AM station's transmitter site, or;
- Within the AM station's 5 mV/m nighttime contour and within 15 miles of the transmitter site, or;

- Within the AM station's directional null such that, if plotted on a circular graph centered on the transmitter site, there is an arc of 15° or less between the azimuths of the two edges of the area where translator coverage is proposed to go outside the 2 mV/m daytime contour, and that all translator coverage is within 25 miles of the transmitter site of the AM station, or:
- Within the 2 mV/m daytime contour and within the City of License.

While these may seem like many “loopholes” in the current plan, they are very narrowly crafted and as a practical matter would only apply in limited situations. The proposed rules are designed not to allow AM stations to enter new markets via these exceptions. However, they would often enhance opportunities within the station's core community.

14c: The idea of linking the FM translator with the AM station is a very good approach. To this, the following additions would be helpful:

- If the proposal in 14a is adopted, allowing multiple translators on the same frequency, all such translators would be linked, and could not be separated from the AM station or from each other, though operation on some of the translators could be discontinued without affecting the licensing of the others (this might happen due to interference problems, leasing or tower availability issues, etc.)
- The translator should be allowed to operate when the AM is off the air on a temporary unscheduled basis for technical difficulties. For an AM outage that would not generally require notifying the Commission, no special notification or permit should be required to continue operating the FM. For outages requiring RSA notification, such notification should state whether the FM would continue to operate.

14 extra: These items were not considered specifically in the NPRM, but should be considered under the document's more general call for ideas. They are perhaps the most important points in this comment.

a. **There is a problem generally with translator rules.** It is specifically a major threat the Commission's commendable concept of allowing and increasing the opportunities for FM translators of AM stations. Translators are uniquely disadvantaged in all of FCC broadcast law.

They are perhaps the only licensed service which can be held responsible for ANY level of interference to other stations. Other licensed services are required to either protect a given signal contour of another or to operate at required distance that is considered sufficient by law. In the case of a translator, even a “DX” listener to a distant station can complain and force it off the air. Ironically, the same frequency which a translator had to vacate could later be used by an LPFM or full-power station and the same distant-signal listener would have no actionable complaint.

While this is an issue that needs to be addressed in general, for this NPRM it is proposed that:

- FM translators which are within the “fill-in” rules for AM stations should be responsible for interference with any other station or translator's protected contours. This would be consistent with the treatment of LPFM's and non-commercial reserved-band stations, which are regulated on a contour-overlap basis.

- FM translators which are “linked” to AM stations as per this NPRM should have additional protection. While they would still be required to accept interference from primary services, no new allocation or major change should be allowed which would substantially damage the ability of the translator to serve its protected contour, unless another frequency could be found which would substantially preserve the service area of the linked translator. In most cases, putting an AM station on an FM translator has the effect of making the FM the primary means by which the station serves its community, and it should be treated as such in keeping with the public interest.
- AM stations which already own relaying translators or which acquire them should be allowed to designate them as “linked”, thus providing the protection proposed herein and attaching the translator permanently to the AM license. If an AM station has more than one translator, only one frequency could be selected for linking. Others could continue to operate, with the same protection and separability as any other translator.

b. 87.7 should be available for translators of AM stations in areas where no TV station transmits on Channel 6. In multiple markets, LPTV stations on Channel 6 have used their audio signal to create “virtual FM licenses”. Whatever one may think about these, they have demonstrated an ability to garner significant audiences. Channel 200, 87.9 in the reserved band is only assigned to two stations nationwide, thus leaving 87.7 available in many places which would otherwise be out of frequencies. A larger discussion of expanding the FM band to accommodate AM stations should be had, but this change could be implemented regardless of whether a larger expansion occurs or not.

15: It would seem clear that the Commission can grant licenses for transition or upgrade of existing licensed services. There are precedents for this authority. The Expanded AM band was initially made available only to existing AM stations, and every TV station was given a second channel for temporary use during the transition to HDTV. In neither case were new applicants mixed into the assignment process before current licensees were given ample opportunities to apply.

16: The Commission seems undeniably correct in its assertions of this section.

17: The question of whether FM translators can address the the problems of AM is one without a single answer.

In small and medium markets, frequencies may be more available, especially for translators of significant power, and populations are concentrated. These factors should result in most stations being accommodated and gaining back much if not all of their ability to prosper and serve their communities.

In relatively larger markets, results will be considerably more mixed. Geography, and the market niche of the station will be larger factors in determining how much a translator helps, but in most cases it should be significant though not total (they will not be back to where they were in 1980 when listening was about evenly split between AM and FM).

For the largest markets, benefit may be limited. Many stations may not find frequencies, or may not have sufficient coverage on them to reach a competitive portion of their AM service areas. Stations with a small geographically-targeted business model may do best (suburban, ethnic neighborhood, etc.). Still, there are enough people who never tune to AM by habit, or cannot receive any AM signal well due to

noise (computers, various lighting, other machinery, etc.) that stations will be helped. If a major New York AM station had a good FM signal only in Manhattan, or a Los Angeles station had FM only in the Valley, they would still be notably strong players in their markets than they are as AM-only.

Impact on FM licensees is also variable. Owners with FM's in the same markets as their AM's should benefit in almost all cases, as they would have a greater number of signals to reach a more substantial audience. In the largest markets, as mentioned above the benefit to AM's would be more limited, similarly the impact on FM's would also be the most limited. There are, however, two primary risks to consider:

a. In small markets, where AM stations may reach nearly the entire population with a translator, As a former station-owner I can imagine this from either side of the table. If my AM-daytimer in Oswego County, New York, had been able to have even a 1-watt translator in each of two towns, or 100-watt translator between them, it would have, for all practical purposes put me on a level playing field with the owner of a local FM station. That is great for the AM owner, but I can also imagine a rural Pennsylvania FM station I almost bought – it had about 90% of the audience in its community, and the only other somewhat local voice was an AM-daytimer from another town that had a little over 2mv/m signal that was unusable in critical hours. If that station, which was nearly bankrupt and worthless had suddenly a local FM signal, my \$250,000 station with a mortgage would have had its business possibly halved by a station which sold for about \$35,000 (probably a cash deal for about as much as my down-payment!)

b. In small or medium markets, there could also be a concentration-of-ownership issue. Again, where AM stations reach nearly the entire population, there are often cluster operators who have AM's competing with those who don't and there may still be some stand-alone locally-owned FM's. In these same markets, frequencies are more likely to be available. Thus, in a 30 station market, one company could broadcast 7 different signals on FM. Considering that 30 is a count of AM and FM combined, and most people don't listen to AM, this means that one company could own 7 out of 15-20 FM signals. Even if this does not, at first glance, seem extreme, consider that several of the FM's are general non-commercial, and another 1 or 2 are typically specialty (ethnic or religious) formats, so one owner could have 7 out of 10 FM stations competing for advertising dollars. For larger markets or those where translators would not cover the preponderance of the population, this would not be an issue.

17.1 It is proposed that both of these concerns be addressed as a part of the following assignment strategy:

a. For any application that an FM licensee contends could reasonably be expected to cause significant hardship and irreparable harm to the FM station, a challenge could be filed. The burden of proof would be on the FM station, to show that its market position would be strongly disadvantaged by the introduction of competition from the introduction of a new signal which be, for practical purposes, a move-in from a station which never significantly covered its primary service area as an AM but would with a proposed translator; or where the introduction of an additional FM “station” in a small market would give undue market power or advantage to the station owner gaining FM presence. In such cases, settlements between the parties would be encouraged, including but not limited to changing the technical parameters to modify the coverage of the translator.

b. Applicants would be required to affirm that AM programming relayed through the proposed translator would not be duplicated on any other FM station or translator, having any coverage overlap or being generally receivable within any part of the protected contour of the proposed translator. Duplicated programming would include full simulcast, simulcast of more than 15% of regularly-scheduled or frequently recurring programming, delayed broadcast of the substantially same programming in excess of the 15% threshold, or identical formatting and imaging designed to create the appearance of the two broadcasts being the same. It should be noted that all of these methods have been used in the past to skirt restrictions on simulcasting. Simulcasting on an FM HD multicast channel (HD-2 or higher) would be allowed.

c. Applications which are neither mutually-exclusive nor challenged as in section a above, nor precluded by section b restrictions, would be granted as expeditiously as reasonably practical.

d. In mutually-exclusive instances (MX), stations would be encouraged to settle, and as a part of such settlement would be allowed to propose major changes which eliminate or alleviate mutual-exclusivity, provided that such changes do not create new MX conditions.

e. AM Stations currently owning translators for duplication of their programming on FM, as of 21 January 2014, or gaining FM translators after this date would be considered lower in priority in conditions of MX applications, as the increased opportunities for AM stations to be on FM should take precedence over providing extra translators to stations already having them. This would apply regardless of whether the translator is on record as relaying the AM station, or if it is relaying an FM HD multicast channel that relays the AM.

f. AM stations currently owning translators relaying their programming should be allowed to propose major changes during the same window when others could apply. However the granting of any such change would also “link” the translator to the AM station in the same way that newly-created translators would be under this NPRM.

g. Any AM station having the opportunity to purchase an existing translator should be allowed to do so, and to propose major changes after the purchase or as a contingency for purchase. Current owners of translators should be encouraged to sell them to AM broadcasters. Perhaps this could be done through some tax or licensing fee incentive, or preference in other applications.

h. A combination of enforcement, education, and new rules if needed should be undertaken to prevent broadcasters from having unnecessary translators with coverage which substantially overlaps their primary signal or other translators. In some cases this done just to keep them for eventual sale or barter, in others it is an intentional and pusillanimous attempt to gain advantage by simply appearing at multiple spots on the FM dial. As a part of this effort, flexibility and expedited processing should be used to allow reductions and modifications in facilities, and major changes for the sole purpose of moving multiple overlapping translators to the same frequency. Such rules would have the practical effect of encouraging many such operators to sell their excess translators to AM broadcasters, and of clearing frequencies if they consolidate.

- i. In other MX instances, preference should go first to stand-alone AM operators, not having any FM signals receivable at within the 2mv/m contour of the AM station. The term “receivable” is used to suggest stations that can generally be received on a properly installed radio/antenna of reasonable quality, as opposed to the smaller protected contour. Many stations have extensive audiences and are generally considered part of the local landscape in some areas outside the protected contour.
- j. For remaining MX instances, preference should go to stations that serve the largest possible percentages of the population in their 2mv/m daytime contour, and to daytimers, with a particular preference to daytimers having coverage substantially impaired by interference in the critical hours.

18. The NMRM states “given the unqualified success ...” in describing AM stations on FM translators. This is a clear and true statement, which should also give rise to general concern about AM. The best way to save it has been by moving it. Technically and philosophically, the translators are “fill-ins”, but from a real-world perspective, they usually become the stations, and the AM signal becomes a “fill-in” for the outlying areas that do not receive the translator. Given this reality, a few additional points should be considered:

- a. Non-broadcast interference to AM radio is not going away.

Though many have suggested strict regulation, it is not feasible to an extent that would have significant impact. The common use of CFL's, computers, and even appliances with microprocessors results in so many sources of interference that it would be impossible to track them all. The global marketplace and on-line shopping have created a diversity of products in homes and businesses that is unprecedented. Can every foreign-made light bulb be checked for RF? Can common appliances all be tested and licensed? What resources would it take for even a notable percentage of electronic and electrical devices to be regulated?

Additionally, the reduced audience and multiple alternatives to AM have created less public demand for non-interfering equipment. Imagine if a new light bulb had been brought to market in 1966, but it interfered heavily with AM reception. This was time when listeners routinely tuned into stations that were well below 2mv/m. If people at the far end of Long Island couldn't get WABC, or folks on Cape Cod lost WRKO, or Washington no longer had cool top-40 from Baltimore's WCAO, it would have been unacceptable. Most purchasers would have returned their bulbs, complaining that “my radios didn't work when I used your product”. Apartment buildings and condos would have banned them due to interference with neighbors' reception. Today, the remaining niche AM listeners know that “it works some places and not others”, or “some noise is normal”, and most people listen to FM, mp3's or internet radio.

- b. While we can help AM, this effort is happening because it needs help. It is proposed that no new AM stations be created, and that current licensees benefit from any increased flexibility caused by new rules or other AM's ceasing operations.
- c. For these same reasons, AM stations benefiting sufficiently from FM translators should be able to discontinue AM operation. There are already AM stations which mention only the FM translator frequency, and a listener would not even know they have an AM signal unless aware of the meaning of a quickly-uttered legal ID. AM power, towers, maintenance, and land may be unnecessary expenses

undertaken primarily to feed a 250w FM “station”, which just happens to be a translator. Stations in this position or those which would be able to move entirely to FM should have a preference in allocations of translators and ongoing primary protection from any future moves or allocations of full-power stations as well as of new translators. As mentioned above in item b of this section, the vacated frequencies would add flexibility for AM stations to improve their facilities but would not allow for new AM entrants.

d. AM stations which may acquire translators later that this present effort should still benefit from the “Mattoon Waiver”, which could be codified into the rules, rather than being a waiver each time. The ability to “link” translators to an AM, the additional protections proposed herein should be still be available to AM stations in the future. There is no justification for denying these benefits to those unable to obtain a translator at this time.

e. As many have proposed, this entire proposal would be greatly enhanced by the expansion of the FM band to include current TV channels 5 and 6, even if it were used on a shared basis with TV and not populated with new AM-on-FM stations in the few places where such stations exist. Because of the FM band in Japan and other nations, most radios are designed to receive these frequencies and only limited by firmware to the correct band for each country. Thus the marketplace would quickly fill with new radios that could tune these channels, and requirement for full-band in new receivers would not be burdensome for manufacturers. The extra channels could be used for translators as above, and perhaps for some higher power classes designed to replace larger AM stations. The sunset of the existing analogue use of the current AM band would be a goal of such a project.

B. The Commission's proposal is sound and reasonable. Indeed many AM improvements have been prevented by current City of License coverage rules. At a larger level, it should be considered that City of License is actually an outdated concept in many large markets. This may be a heretical thought to many in the regulatory community, but most people “live” in metro areas more than in specific cities. A station which is licensed to Bethesda or Arlington is a Washington-area station. Their total service to the region of several million people is more important than their coverage of a particular community of fifty-thousand people. Unduly limiting their ability to cover the millions because of an excessively restrictive requirement for the fifty-thousand is not good public policy in the current era.

C. The MMTC has another good idea in the elimination of the night-time coverage rules. If the station meets the daytime rules, there is currently a double-standard. Some can use nominal power with no protection and no opportunity to optimize directional pattern, but others can officially be considered “full-time”, with a separate directional pattern and some protection. The difference between these categories is often a matter of random -luck: does the daytime-designed array allow for a particular level of coverage in one particular place or not. Clearly the public would be better serviced by having more stations with meaningful night coverage.

D through F. Others have already commented and presented detailed data in favor of proposals which the Commission is sensibly proposing to adopt.

G. Other ideas:

- a. Immediate elimination of skywave protection for clear-channel channels should occur. If protected to their 1mv/m groundwave contours, they would still be dominant in their markets and receivable in adjacent markets. Skywave listening has dropped to insignificant levels many years ago. Even the nominal power that many daytimers would get could have immediate benefit to these stations and their communities.
- b. Just as the PSRA has been set at 500w for many stations, a PSSA of 500w should be available as well. A one-time window could be set for interference complaints of existing full-time station, but the burden of proof should be on these stations that significant impairment to their operations is occurring.
- c. An FCC letter advised broadcasters that in the opening days of November, when Daylight Time is still in effect, they could continue using their October sunrise and sunset times. However this was never made an official published rule. It, and a similar order pertaining to the opening days of March should be made clear and legal. This would help maintain important morning-drive service for many daytime stations , which may otherwise face sign-on times of 7:45 or even later for these few days each year.
- d. IBOC all-digital operation should continue to be tested and encouraged if it works well. Perhaps even some granting of temporary separate channels for digital-only transmission should be considered.
- e. Hybrid IBOC AM should be eliminated. It is a clear failure, as the coverage is very limited, the interference with adjacent and second-adjacent stations is substantial, and the switching back and forth between digital and analogue audio bandwidth and fidelity makes it virtually unlistenable.
- f. FM stations should be allowed and encouraged to create and lease HD-multicast channels to AM broadcasters. Specifically, provisions should be made allowing the AM licensee to be exclusively responsible for the content and content-licensing of the broadcast on a leased 100% simulcast FM HD channel. This could facilitate agreements between stand-alone AM's and FM's which may not have HD or do not have multicast channels.

Summary:

Overall, this NPRM is clearly moving in the right direction. The main points that I would be included to add:

- Rules should be put in place to encourage and allow the maximum number of AM broadcasters can gain FM translators.
- FM translators, particularly those of AM stations deserve reasonable protection and expectation of continuance.
- AM stations should have the option of moving to their FM translators exclusively.
- No new AM stations should be established, but any attrition should benefit the remaining stations and allow them options for improving coverage.

- Man-made interference from non-broadcast sources cannot be feasibly eliminated nor significantly reduced.
- MMTC proposals should be adopted for changes to coverage and antenna efficiency requirements.
- IBOC all-digital should be tried on AM, but hybrid should be eliminated.
- FM stations should be encouraged to lease HD multicast channels to AM broadcasters.