

**Before the
Federal Communications Commission
Washington, DC 20554**

In the Matter of)
Revitalization of the AM Radio Service) **MM Docket No. 13-249**
)

COMMENTS OF KYLE MAGRILL

The Need for a Statutory Definition of an AM station's Service Area for FM Translator Use:

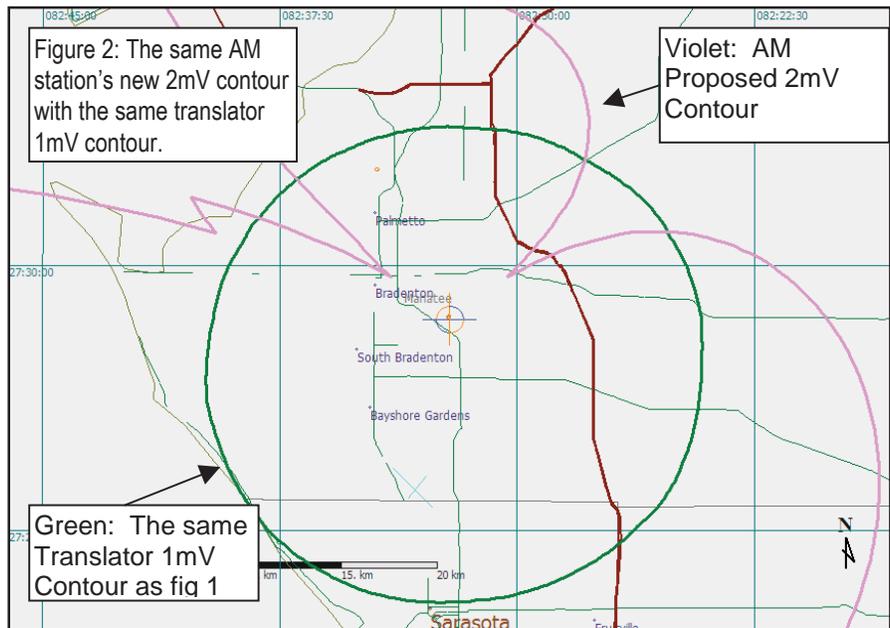
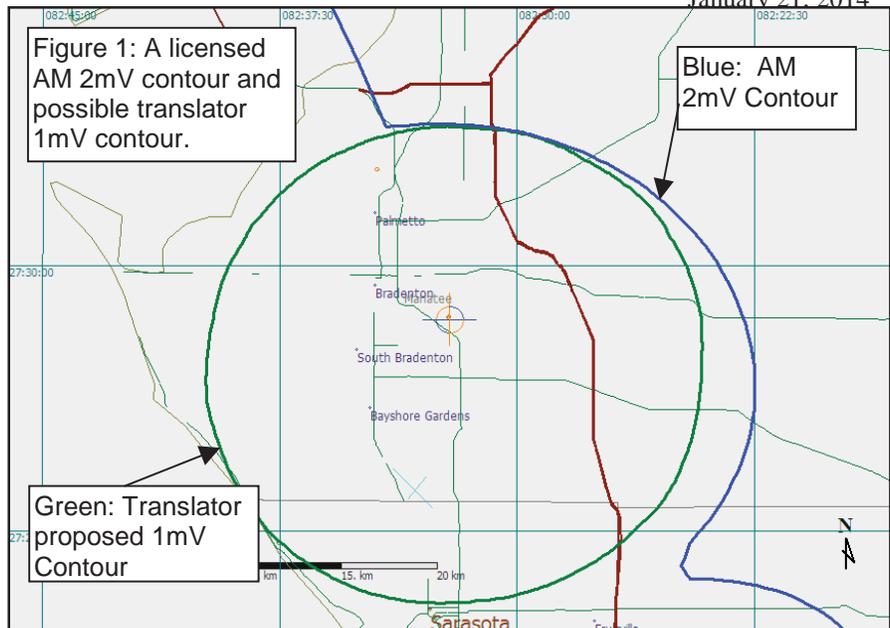
No discussion of AM revitalization would be complete without discussing the current restrictions on AM licensees that choose to use AM fill-in translators. One area that severely hampers many AM stations are the deep pattern nulls that may be associated with a particular tower array. In many cases, the nulls result from the economic hardships associated with building more complex antenna systems. In these cases, deep nulls that are not necessarily providing any significant protections to other stations, but are simply the result of simplified antenna arrays. Even when a pattern provides protection to an adjacent station, the primary AM station may not be able to effectively cover their market. I would encourage the Commission to establish some regulatory nominal minimum distance from an AM station's main antenna that would be considered to be within the station's primary service area regardless of the station's 2mV contour. A minimum distance of 10km or 20km might be a reasonable place to start. Alternatively, the county where the AM antenna is located could be considered the minimum boundary for translator coverage. In these cases, a translator operating from an AM tower would have a reasonable chance to properly cover their communities and markets. Some consideration must also be given to the inevitable case where a translator is licensed within the 2mV service contour of a station and that station moves or makes a change to the array that results in the translator's service contour exceeding some part of the primary's signal.

Figures 1 and 2 compare what happens when a licensed AM station moves to a new antenna array. In this case, the AM station actually moves to the tower where its translator is located. The AM station is a two tower directional array.

Figure 1 shows the AM station's originally licensed 2mV contour with a fill-in translator providing service to a major community in the station's service area. Although the AM transmitter is 15+ miles away in figure 1, the 2mV contour works well with the translator's 1mV contour.

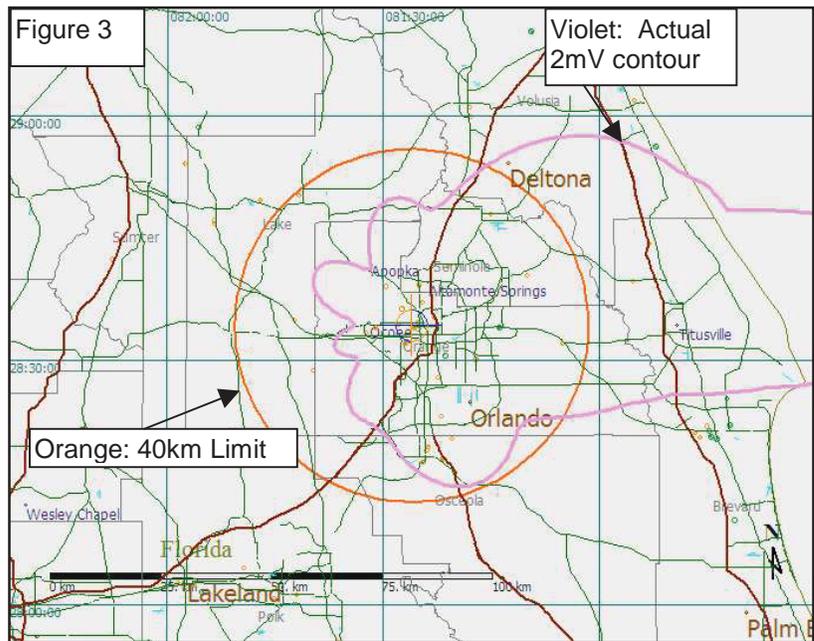
Figure 2 shows the AM station's 2mV contour when they propose to move to the same tower where the translator is located. The resulting deep nulls to the northwest and northeast are artifacts of the antenna array and are not protecting a nearby station.

Note that this example is not fictional. The 2mV coverages shown in the above two figures are an actual licensed pattern and a pending application for the same station. Under the present rules, the AM station shown would be required to severely reduce the translator's power or switch to a very directional translator antenna. If the AM station had loyal FM listeners in the affected areas, their service would be lost. This result is clearly not in the best interest of the AM station or AM broadcasting in general. If there was a reasonable threshold, in addition to the 2mV limit that the station could apply whereby the AM station could continue to serve their market, then the public interest and AM broadcasting would be better served.



Some AM stations have the opposite problem. They have excellent signals that serve large areas, but they are limited by the 40km rule. The policy limiting translator use to no more than 40km seems arbitrary and capricious. If a station provides service to a region and it is believed that FM translators do provide a beneficial supplement to the station's service, why cannot an AM station use FM translators within their entire service area? The 40km restriction should be eliminated so the AM stations can fully implement FM translator services within their service areas.

Figure 3 is an AM station with a 2mV contour that effectively serves a significant region which comprises only about 60% of the total market (by area). The 40km limit is shown in orange and represents about 30% of the total market (by area). To expect an AM station to compete with this limitation puts the AM station at a serious disadvantage compared to their FM counterparts. The artificial 40km restriction should be lifted.



AM stations need to be able to serve their communities. If translators are to be a part of the solution for AM stations, then there is an opportunity to make significant progress towards more efficient use of FM translators for AM stations.

Respectfully Submitted,

Kyle Magrill
21 January, 2014