

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of)
)
Amendment of Part 74 of the Commission’s) MB Docket No. 18-119
Rules Regarding FM Translator Interference)
)
)

To: Office of the Secretary
Attn: The Commission

PETITION FOR RECONSIDERATION

Skywaves Communications LLC hereby submits its petition for reconsideration (“Petition for Reconsideration), to the May 9, 2019 FM Translator Interference Report and Order.

I. INTRODUCTION

Skywaves Consulting LLC is a well-known firm providing technical consulting to the broadcast industry for many years. Its clients run the gamut from owners of individual AM stations to large multiple-station owners.

The new FM Translator interference rule attempts to bring some sanity to the chaotic world of translators as secondary services, in which a single interference complaint by a single listener could kill a translator that might be serving thousands of other listeners and generating significant revenue for the translator owner.

The establishment of criteria including a minimum numbers of complaints; alleviating the listener cooperation requirement in resolution; allowing, and indeed burdening, alleged interference-victim stations with proving their cases; and encouraging cooperation between interferor and victim appear to be positive steps.

However, Skywaves has two major concerns about the new rule:

- The imposition of standard U/D ratios using standard FCC contour methodology has dire unintended consequences.
- The establishment of the 45 dBu contour as a limit for actionable complaints places a limit on the old “no interference anywhere, regardless of the quality, strength, or

channel¹” standard. In effect, the 45 dBu limit establishes a new protected contour with respect to translator interference. As such, it provides significantly increased protection to all incumbent stations.

Skywaves undertook nationwide studies of all licensed full-service stations and all licensed FM translators to determine how many translators would be put at risk by 45 dBu contour protection. Summary results of those studies are provided below.

II. UNIVERSAL IMPOSITION OF STANDARD D/U RATIO

The Report and Order did not specify f(50,50) or f(50,10) with respect to the 45 dBu contour and the interfering contours.

In keeping with standard practice, Skywaves calculated the 45 dBu f(50,50) contour as protected, and calculated f(50,10) contours for the interfering 25 dBu, 39 dBu, and 85 dBu co-channel, first-adjacent, and second/third-adjacent contours.

The revised rule requires an FCC contour-based U/D study for each and every complaint. This is appropriate for complaints outside the protected contour, but it fails within.

New and modified FM translator permits are granted only when the U/D ratio is met at each co-channel and first-adjacent protected station’s standard f(50,50) protected contour (60 dBu for most classes and all reserved-band NCEs, 57 dBu for non-reserved-band Class B1 and 54 dBu for non-reserved-band Class B). The U/D ratio decreases within the protected contour as you approach the protected transmitter.

Therefore, it appears that the new rule would eliminate from consideration all complaints of co-channel and first-adjacent channel translator interference within a protected station’s protected contour.

This is clearly not an intended result, and this portion of the rule should be reworded to make it clear that the U/D ratio criterion applies only outside the protected contour.

III. USE OF THE 45 DBU CONTOUR PROVIDES EXCESSIVE PROTECTION

As a simple example of why Skywaves believes 45 dBu is an excessive level of protection, consider a Class A FM station 6,000 Watts @ 100 m Above Average Terrain “AAT”). Under 73.207, another co-channel Class A station can be added 115 km away.

A prudent translator proponent would seek to avoid overlap between the Class A station’s 45 dBu f(50,50) contour, which falls at 57 km, and its proposed translator’s 25 dBu f(50,10) contour. Assuming the translator is desired to operate with 250 W with the same 100 m AAT, the translator 25 dBu f(50,10) contour would fall at 91 km, making the minimum distance between the translator and the Class A station 148 km. We submit that is far more damaging to that incumbent Class A station to have another 6 kW station 115 km away than a 250 W translator 148 km away.

Existing stations are only entitled to protection from other full service stations to their protected contour. It seems inconsistent at best to offer a much higher degree of protection from translators.

¹ Paraphrased from §74.1203

IV. INDUSTRY-WIDE STUDY OF THE IMPACT OF THE 45 DBU PROTECTION CRITERION

Skywaves created two industry-wide data tables containing the following information:

For each licensed full-service FM station (“FM”):

- How many licensed co-channel translators’ 25 dBu f(50,10) contours overlap each FM’s 45 dBu f(50,50)
- How many licensed first-adjacent translators’ 39 dBu f(50,10) contours overlap each FM’s 45 dBu f(50,50)
- How many licensed 2nd/3rd adjacent translators’ 85 dBu f(50,10) contours overlap each FM’s 45 dBu f(50,50)

For each licensed translator (“FX”), we’ll use the abbreviation FSPL to cover “Full Service FM and previously licensed secondary (FX/FL)”:

- How many co-channel FSPLs’ 45 dBu f(50,50) contours overlap each FX 25 dBu f(50,10)
- How many first-adjacent FSPLs’ 45 dBu f(50,50) contours overlap each FX 39 dBu f(50,10)
- How many 2nd/3rd adjacent FSPLs’ 45 dBu f(50,50) contours overlap each FX 85 dBu f(50,10)

The tables include results for each specific FM and FX. Skywaves can produce the number of conflicts and the specific list of conflicts for any FM or FX on request.

Summary findings:

- 87% of all licensed FMs have translators within or overlapping their 45 dBu f(50,50) contours.
- 95% of all licensed FM Translators overlap the new 45 dBu protected contours of Full Service FM and previously licensed translators and Low Power FMs.

Conclusion: The vast majority of FM stations would be in a position to pursue interference complaints against one or more FM translators, and nearly every FM translator would be placed at risk of such action, should the 45 dBu protection standard stand.

Respectfully submitted,

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