

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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

To: The Commission

Reply Comments of Fred W. Volken

Introduction

These Reply Comments in MB Docket No. 18-119 have been prepared by Fred W. Volken for the purpose of providing the Federal Communications Commission with useful responses to comments filed in this rulemaking proceeding, concerning changes in Sections 74.1203 and 74.1204 of the Commission's Rules.

Replies to Comments Filed in Rulemaking Proceeding

The writer is replying to comments by others on subjects covered in the Notice of Proposed Rulemaking that are of greatest interest and concern to him. In this case the challenge to the Commission is to develop rules for FM translators that recognize the primary status of FM stations, while taking into account public service benefits of translators in a reasonable and fair way without altering their secondary status.

For the writer's responses to the comments, the following basic assumptions were made: (1) the FM translator provides protection to the FM station in accordance with Section 74.1204(a) of the Rules; and (2) the FM station receives protection from predicted and actual interference from the FM translator to the station's predicted 54 dBu F(50,50) contour. All signal level calculations would be based on the methodology of Section 73.313 of the Rules; use of Longley-Rice signal studies would not be permitted.

Establish outer contour limit for predicted and actual interference from FM translator

The present wording of Section 74.1203(a) of the Rules recognizes complaints of interference from an FM translator to an FM station without regard to the characteristics of the FM station signal level. A number of commenters, along with the writer, support the Commission's proposal to limit complaints of both predicted and actual interference from an FM translator to an FM station to the FM station's 54 dBu contour. For determination of predicted interference, this will in many cases result in a much larger area than the predicted 1 mV/m (60 dBu) contour of the translator that is presently specified in Section 74.1204(f) of the Rules.

The writer suggests that, under Section 74.1204(f) of the Rules, predicted interference from a new or modified FM translator to identified listeners of an FM station would be determined for co-channel interference only (for reasons described in his Comments and also in a subsequent part of these Reply Comments), within the FM station's 54 dBu contour. Predicted interference would be deemed to occur within the area of overlap of the FM station 54 dBu contour and the translator 34 dBu F(50,10) contour (interference could be determined from the desired-to-undesired signal ratio (20 dB) within this area).

Actual interference to identified listeners inside the FM station's 54 dBu contour would include consideration of co-channel and first-, second-, and third-adjacent-channel interference. For any cases of actual interference, the translator proponent would be given an opportunity to correct the problem (including providing the listener with a different FM radio).

Limit predicted interference to co-channel interference

At least one commenter in addition to the writer realizes that there is little need for determining predicted adjacent-channel interference from proposed FM translator facilities to regular listeners of an FM station.

The writer is convinced from computations of predicted first-adjacent-channel interference, and actual experience in investigating such interference using modern FM receivers, that recognition at the application stage of predicted first-adjacent-channel interference will eliminate translator opportunities where it unlikely there would later be complaints of actual interference. Additionally, the writer has shown in his Comments that, in the unlikely event such interference should occur, there is a very good chance it can be corrected at the translator proponent's expense.

Similar reasoning applies to predicted second- and third-adjacent-channel interference.

Allow correction of actual interference

A number of the commenters support retaining the opportunity for corrective action by the translator proponent to remedy actual interference, and the writer supports such activities. The present Commission policy of requiring the listener to cooperate in the remedial work is a reasonable expectation for the listener.

Minimum number of listener complaints

Several commenters support establishing a minimum number of interference complaints for either predicted interference or actual interference before any action is required in connection with such interference. Various minimum numbers were suggested, ranging from 2, 6, and 20, to some percentage of the population within the FM station's service area. The writer believes this is an essential element of fairness, and suggests a reasonable number could be between six and ten.

Element of certainty for existence of FM translators

The comments filed in favor of a greater element of stability in the existence of an FM translator are supported by the writer. The wide listenership that the FM translator service has achieved, and the resulting prices that have been paid for FM translators, warrant giving greater assurance to the translator licensee that the translator will still be in operation “tomorrow.”

Accordingly, the writer supports an end to recognition of complaints of actual interference after a period of one year’s operation of the FM translator, on the condition that if the translator facilities are modified in any substantive way, this period of one year starts over again.

Additionally, at any time when a change in FM station facilities would result in predicted or actual interference from an existing FM translator to the FM station, the secondary status of the FM translator would preclude continued operation of the translator if the interference problem could not be corrected.

Directional antenna proof-of-performance requirements for FM translators

Some commenters want to have the directional antenna proof-of-performance requirements for FM stations also applied to FM translators. This would be a new and lofty requirement that would be burdensome to many translator operators.

Having said that, the writer has maintained for a long time that an FM translator applicant needs to be required to provide full details of the proposed directional antenna design, to demonstrate clearly that at least under ideal conditions the proposed directional antenna will perform as shown in the data contained in the application. This is a very serious matter because, for example, even a very low-power FM translator at an advantageous location can cause destructive interference over a very wide area if not operating properly.

Definition of regular listening

Some of the commenters suggest various numbers for frequency of listening to qualify as regular listeners.

Listening to a favorite program broadcast only once a week surely qualifies as “regular.” Accordingly, the writer suggests that a person who listens at least one time per week should be considered a regular listener.

Use of Longley-Rice computerized radio propagation model

The writer believes that use of the Longley-Rice radio propagation model is an unwarranted burden in this proceeding, both from the standpoint of the FM station and the FM translator, and from administrative aspects, because of the variety of options in both operating the computer program and displaying the results. For example, it is likely that over the same geographic area there will be appreciable differences in the signal displays obtained by utilization of a 30-second, 3.0-second, or 1.0-second terrain database.

It has been the Commission’s policy in the past to preclude use of the Longley-Rice model for re-calculating the service area of an FM station from that determined using the methodology of Section 73.313 of the Rules.

Conclusion

These Reply Comments were prepared by the writer for the purpose of providing his response to comments submitted by other participants in this proceeding, and to assist the Federal Communications Commission in developing rules for FM translators that are reasonable and fair for both FM stations and FM translators.

The writer is a graduate physicist holding the degree Bachelor of Arts from Occidental College in Los Angeles, California. His qualifications as an engineering consultant are a matter of record with the Federal Communications Commission, and he has been providing consulting services for broadcasting stations since 1957.

Respectfully submitted,



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