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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

COMMENTS OF
DU TREIL, LUNDIN & RACKLEY, INC.
IN THE MATTER OF
1998 BIENNIAL REGULATORY REVIEW -
STREAMLINING OF RADIO TECHNICAL RULES IN
PARTS 73 AND 74 OF THE COMMISSION'S RULES
MM DOCKET NO. 98-93

These Comments are filed on behalf of the consulting electronics engineering firm of du Treil, Lundin & Rackley, Inc. ("DLR") in response to the Notice of Proposed Rule Making ("NPRM") in the above captioned proceeding. DLR and its predecessor firms (including A.D. Ring & Associates) have been engaged in broadcast engineering consulting on matters before the FCC continuously since 1941.

DLR supports the Commission's efforts to improve its processing procedures and to provide a more flexible framework within which to engineer improved broadcast facilities. We offer comments on selected issues in this proceeding as detailed below:

Contingent Applications

We support the Commission proposal to allow contingent FM application filings before the FCC. DLR has been involved in several cases where the proposed contingent application rule could have simplified the FCC administrative processes, staff attention and filing requirements. For example, we are aware of a case where a FM station was changing its transmitter site contingent upon the negotiated downgrade of another FM station. The filings required coordination with the Commission staff and there was concern for protection of the proposal from competing applications. Under the proposed contingent filing rule the filing process will be simplified substantially as applications in situations similar to the above could be filed simultaneously. We suggest that a requirement that proposals involving commercial stations not

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create any new “white” or “gray” area as defined in the FCC NPRM¹; or to the extent that these areas are created, they are offset by new service to existing “white” or “grey” areas. The count of population only within the relevant areas should be considered. The computation of area should not be required. (Further comments concerning the counting of population are described below.)

With respect to agreements that would include canceling a non-commercial educational (NCE) FM station license, DLR suggests a requirement that such proposals not create any new “white” or “gray” areas as defined in the FCC NPRM. Or, to the extent that these areas are created, they are offset by new NCE service to existing “white” or “grey” areas. We suggest that the Commission clarify that “white” or “gray” area in the context of NCE stations refers to area lacking in none or one other NCE service, respectively. Since NCE stations have limited community of license coverage obligations, it does not seem logical to impose a specific local service floor on such contingent proposals. However, DLR supports the consideration of proposals that would restore service to otherwise “white” or “grey” areas through the improvement of other NCE stations in conjunction with the subject contingent FM proposal.

Negotiated Interference Agreements

The Commission proposes that stations may form agreements in through which interference as predicted under the Commission accepted criteria would be permitted within certain guidelines. The interference proposals would have to meet four criteria in order to be approved as follows:

1. Total interference from all interfering stations must be no greater than 5% of the area and population within each affected station’s protected service contour. DLR suggests that the percentage be based on population alone. In the broadcast arena, the Commission traditionally does not consider contour overlap over water to be of consequence in allocation matters.²

¹ See note 25 of NPRM.

² DLR requests that a sentence be added to Section 73.215 clarifying that overlap of the respective protected and interfering contours is permitted over bodies of water.

The Commission has recognized in the DTV proceeding[†] that the primary focus in allocation issues is the determination of population within a predicted interference area. Hence the Commission's 2%/10% interference criteria considers population alone in making the determination of interference permissibility. DLR suggests similar treatment for FM cases involving interference. So that determination of interference under the 5% rule would be on the basis of population alone. The baseline population would be the calculated population within the protected service contour. Also, predicted interference existing from other stations would be considered in the determination of new interference. For example, if a station is receiving predicted interference from, say, a co-channel facility, then the new interference from a second-adjacent facility would be considered only to the extent that it extends beyond the interference that is existing from the co-channel facility. If the new interference would be entirely within the existing interference zone, the net result would be 0.0% interference created to the subject station.

2. We believe that the second criteria can be summed up as follows: proposals would be examined in terms of net total service and net total interference. (Again we suggest that this calculation be in terms of population alone.) The net total service gain must be at least 5 times greater than the net increase in interference for the entire proposal. DLR supports this as reasonable criteria for ensuring that proposals offer a net public interest benefit.
3. No predicted interference can occur within the boundaries of the affected station's community of license. DLR supports this criterion.

[†] See Memorandum Opinion And Order On Reconsideration Of The Sixth Report And Order FCC 98-24 MM Docket No. 87-268, Adopted: February 17, 1998, Released: February 23, 1998; and Sixth Report And Order, FCC 97-115, MM Docket No. 87-268, Adopted: April 3, 1997, Released: April 21, 1997, both in the matter of Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service (herein "DTV Proceeding")

4. Applicants must demonstrate at least five aural services within the new interference areas, formerly interference-free service areas, created by the proposal. DLR supports this criterion for commercial stations, but suggests a "white/grey" area criterion with respect to NCE FM stations.

DLR suggests that supporting exhibits be included in such proposals. This will help to ensure that proposals are prepared properly and it will assist in the review of the proposals by the Commission and third parties. We further agree with the Commission's 63 dBu criterion as a means of limiting second- and third-adjacent NCE FM stations.

The FCC proposes that a unilateral modification be permitted provided that the four criteria described above are met. The subject station that would receive interference would be reclassified as a "Section 73.215" station. DLR supports this approach. DLR also suggests that a FM station be permitted to make a unilateral modification in its facilities utilizing one simple criterion alone: That it not increase interference to another station by more than the de minimus level 0.5% of the population within the affected station's protected service contour. This would be based on a population computation alone. Such a provision would offer potential opportunities to improve service to those stations for which an interference agreement may be practically unattainable. For example the second- or third-adjacent Class A station on the fringe of a large market Class B or C facility. Furthermore, such a limited level of interference would be of such an insignificant level practically, that there would be little concern for loss of service. And, interference levels of level of less than 0.5% can be considered to be rounded to 0% for administrative or legal interpretation.⁵

Computation of Population

The FCC outlined its procedure for computing population within DTV service and interference contours in the context of the DTV proceeding. The

⁵ A similar procedure was followed in consideration of DTV interference to existing NTSC stations. For example, see Public Notice, "Additional Application Processing Guidelines For Digital Television (DTV)," Released: August 10, 1998.

procedure involves summing the population within the 1990 (or latest) Census blocks that fall within the area of interest. The Census block is the smallest unit of measure of the U.S. Census Bureau. Each block has unique centroid coordinates that describe its location. We believe that it is now conventional within the industry to count population utilizing a count of population centroids within an area of interest. DLR suggests that the Commission specify this procedure for use in all interference analyses in a manner similar to that of the DTV proceeding. This would further support DLR's proposal that population alone be employed as a criterion under the FCC interference proposals.

The Point-to-Point Methodology

DLR has reviewed the PTP methodology proposed by the Commission and has found it to be in reasonable agreement with the Longley-Rice propagation model in most cases. However, we note that there seems to be a significant effect on the results of the PTP depending on whether the 30-second or 3-second terrain databases are employed. If the PTP is to be employed, we suggest that a database of no lesser resolution than 3-seconds be employed.

We note that the PTP in most cases shows good correlation with the established Longley-Rice propagation model. The Longley-Rice model has been available to the public in a coded form for a number of years. The PTP adds an additional level of computation in which it computes a contour distance from a set of calculated signal strength points. This is the real objective of the PTP, to obtain a contour distance using a propagation method that more closely considers the effects of terrain. DLR strongly supports the Commission's endeavors to adopt such a model.

However, although the firm is impressed with the work of the Commission in the development of the PTP, we question the use of the PTP when the well known Longley-Rice model is not only available, but has been offered by the Commission in the development of the new DTV service." It seems as though

" See OET Bulletin No. 69, Longley-Rice Methodology For Evaluating TV Coverage And Interference, July 2, 1997.

the Longley-Rice model with a few additions to handle a clutter factor, would perform well as the engine for generating the raw predicted point-to-point signal levels. These could then be inserted into the contour prediction subroutine to produce a contour distance in the same manner as the PTP. In any case, either model would appear to perform well for the purposes intended by the Commission.

FM Class C0

The Commission has proposed to add a Class C0 facility that would have minimum facilities of 100 kW ERP and 451 m HAAT. DLR notes that the Rules will need to consider an equivalent Class C0 class contour for situations where the HAAT exceeds 600 m. DLR notes that the this new FM class will occur during the DTV transition period. We suggest that a 3-year transition time is appropriate given the competition for tower space that is occurring for new DTV facilities in addition to existing FM facilities. The 16-km buffer zone proposed by the Commission, similar to that which was applied during the Docket 80-90 proceeding, does not seem to be required given the greater flexibility to relocate afforded by Section 73.215. In addition, if the Commission adopts the PTP proposal in this proceeding, this will add to the engineering tools available to modify facilities as desired to conform to the new rules.

Class D Revisions

DLR supports the FCC efforts to help lessen and eliminate interference from Class D stations on full-service FM stations. DLR also supports the elimination of the renewal demonstration. The Commission's proposal to relocate class D stations to available interference-free channels is sound. The second- and third-adjacent channel priorities proposed are good engineering practice and will serve to lessen the potential interference of Class D stations to full-service stations. The second- and third-adjacent interference levels from Class D stations will be virtually non-existent given the low operating powers of Class D stations. The Commission should consider proposals for Class D stations to upgrade to Class A along the lines of FM one-step applications for processing purposes.

Other Matters

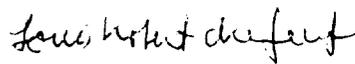
DLR specifically supports the following Commission proposals:

- Deletion of the terrain roughness section of the FCC Rules.
- Modification of Section 73.215(e) table to permit at least 6 km of short-spacing for second- and third-adjacent situations.
- Protected and interfering contours for Puerto Rico and the Virgin Islands.
- First-come, first-served proposal for minor change applications for AM, NCE-FM and FM translators.
- Coordinate corrections of less than 3 seconds of change in latitude and longitude. (DLR suggests that this language be modified to be less than or equal to 3 seconds of change.)
- Effective radiated power reductions by FM boosters and translators by license application.
- Proposal to conform NCE-FM second adjacent D/U ratio with the commercial band (ie 40 dB).

Miscellaneous Matter

Sections 73.208 and 73.611 of the FCC Rules reference the United States Department of Interior publication entitled the Index to the National Atlas of the United States of America. Based on information from the U.S.G.S., we understand that the National Atlas of the United States was last published in 1970 and is now out of print. Further we understand that the U.S.G.S. is publishing a 1998 version of the U.S. National Atlas that will be world wide web integrated. The U.S.G.S. staff reports that there is no such Index to the National Atlas in the latest version of the National Atlas and that the official repository for the locations of geographic names in the United States is the Geographic Names Information System (GNIS). In addition to being available in database form, the GNIS is available online online and supports a variety of different user queries. The Universal Resource Locator for the GNIS search engine is: <http://mapping.usgs.gov/www/gnis/gnisform.html>. Geographic coordinates of locations can be obtained using our online, interactive National Atlas (by using either the Identify function or the Gazetteer Query).

DLR suggests that the Sections 73.208 and 73.611 be revised to reflect the official repository of the location of geographic names for the United States: the GNIS. Since this is essentially the "Index" to locations of the 1998 version of the National Atlas of the United States, the Rule revision should be of a rather minor nature. But it will permit coordinates of locations to be more easily accessible by interested parties utilizing the current U.S.G.S. information. Furthermore, because the 1970 version of the National Atlas is out of print, it is difficult for interested parties to access these data. Furthermore, the 1970 version of the index to the National Atlas does not appear to be available in electronic form.


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