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Federal Communications Commission **DA 02- 3116**

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Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Amendment of Section 73.622(b),	)	MM Docket No. 00-138
Table of Allotments,	)	RM-9896
Digital Television Broadcast Stations.	)	
(Boca Raton, Florida)	)	

MEMORANDUM OPINION AND ORDER

Adopted: November 14, 2002 **Released** November 20, 2002

By the Chief, Video Division:

1. We herein consider a "Petition for Reconsideration" of our action taken at the request of The School Board of Broward County, Florida ("School Board"), licensee of noncommercial educational station WPPB-TV, NTSC Channel *63, Boca Raton, Florida, substituting DTV Channel *40 for station WPPB-TV's assigned DTV Channel *44. See ***Report and Order*** in MM Docket No. 00-138, 17 FCC Rcd 7114 (2002) ***("Report and Order").*** The petition was filed by Sherjan Broadcasting Company, Inc. ("Sherjan"),and a Joint Opposition was filed by School Board and Guenter Marksteiner (collectively "Proponents").'

2. Sherjan is the licensee of Class A station WJAN-CA, operating on channel 41 at Miami, Florida. It filed comments opposing the channel substitution proposal, alleging, among other things, that the proposed allotment of DTV Channel *40 at Boca Raton would be first-adjacent to WJAN-CA and would result in prohibited contour overlap with its Class A station. In response, Proponents asserted that because the channel substitution proposal meets the relevant technical requirements, including interference protection rules and policies for Class A stations, Sherjan's objection was without merit.[2]

3. Using the propagation methods outlined in OET Bulletin 69, and based on our own independent review of the desired-to-undesired signal ratio, we calculated that due to the proposed channel substitution, WJAN-CA will receive interference to only 1.03% of its service population, well below 2 percent of its population served, and therefore such interference must be accepted by that Class A station. We concluded that because the proposed channel change complied with city-grade service and interference protection requirements, and was otherwise

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[1] Sherjan filed a response to the Joint Opposition. Marksteiner, a party to the earlier proceeding, also filed a "Petition for Leave to File Response and Response to Reply" which Sherjan opposes.

[2] Marksteiner argues that the Langley-Rice terrain dependent propagation methods outlined in OET Bulletin 69 establish that WPPB operating on DTV Channel *40 would cause predicted interference to only 0.03% of station WJAN-CA's service area, well within the "service population" rounding tolerance of 0.5 percent.

consistent with the Commission's technical standards, the proposed channel substitution was in the public interest.

4. In its reconsideration petition, Sherjan contends that the allotment of DTV Channel *40 to Boca Raton is based on an erroneous reading of the Commission's Rules. Specifically, it states that the 2 percent interference threshold does not apply to Class A stations. It asserts that Section 73.623(c)(5) of the Commission's Rules provides that a DTV proposal will not be accepted if it is predicted to cause ***any*** interference (beyond a permitted rounding tolerance of 0.5 percent) to a Class A station, and that there is no 2 percent exception. See *also Establishment of a Class A Television Service,* 15 FCC Rcd 6355,6388 (2000). Accordingly, having concluded that the Boca Raton proposal would cause interference to 1.03 percent of WJAN-CA's service population, Sherjan argues that the allotment of DTV Channel *40 at Boca Raton must be rescinded.

5. Proponents state that without regard to applicable interference limits, the factual premise of Sherjan's argument – that there will be interference to 1.03 percent of WJAN-CA's service population – is incorrect. They state that the interference figure is overstated as it was measured under a computer program with the standard default value to implement OET Bulletin 69, which shows interference to a portion of one particular 2-kilometer (km) resolution calculation area "cell" which has a large population. Because that program shows interference to a portion of that cell, the population of the entire cell is calculated to receive interference. However, Proponents maintain that the Commission has approved the use of a more accurate 1-km cell size resolution because the finer resolution eliminates those persons that might be included in a larger cell population count that would not actually receive interference? Using the l-km cell size resolution calculations, Proponents contend that the approved channel change will result in interference affecting only 0.42 percent of the WJAN-CA service area, and thus within the 0.5 percent rounding tolerance used by the Commission.[4] In reply, Sherjan states that the inherent accuracy limitations of *the* Longley-Rice propagation model on which OET Bulletin 69 relies makes use of a 2 km cell size more appropriate. It argues that the use of the finer resolution is improper to "pry compliance out of an otherwise defective proposal."

6. Sherjan does not specifically dispute the results of Proponents' interference calculations. It does claim, however, that the arguments concerning the appropriate method of calculating interference based on different cell sizes were not raised previously, were not discussed in the *Report and* ***Order*** and therefore should not now be entertained. In response, Proponents state that their previously submitted analysis demonstrated interference to less than 0.5% of WJAN-CA's service area population using a computer program employing OET 69

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[3] ***See Public Notice, Additional Application Processing Guidelines*** *for* ***Digital Television (DTV),*** released August 10, 1998 ***("1998 Public Notice").***

[4] Proponents **also** state that the instant channel change will provide additional protection to the modified facilities of WJAN-CA as proposed in Sherjan's pending application (BPTTA-20010116AGG), causing interference to only 0.17 percent of the population within WJAN-CA's new service contour.

techniques with adjustments for population location. Specifically, they used a standard cell calculation size of 2 km, but employed a terrain profile step size of 0.1 km, which provides a finer resolution and more accurate measurement, rather than the Commission's standard 1 km step size. This was done, they assert, to account for interference to a portion of one particular calculation area cell which has a large population that does not actually receive interference but would otherwise be counted in its tabulation. They maintain that the new interference study shows very similar interference area locations as their previous study, but yields somewhat lower population figures when based on the more accurate 1 km cell size measurement. Proponents contend that their initial interference study was more accurate than standard prediction methodology using the 0.1 km terrain profile step (0.03 %), and even more accurate using the 1 km cell size measurement (0.42%), both of which yield results demonstrating interference below the 0.5 percent rounding tolerance. They claim the subsequent submission of an interference study based on the new Commission computer program is sufficiently similar to and, in any event, more accurate than their previous interference study.

7. Discussion. Sherjan is correct that the staff erroneously concluded that a Class A station must accept interference of up to 2 percent of its service population. Section 73.623(c)(5) of the Commission's Rules provides that proposals to expand a DTV station's allotted or authorized coverage area will not be accepted if it is expected to cause interference to a Class A television station. This "no interference" standard, as Sherjan recognizes, is subject to **a** rounding tolerance of 0.5 percent. Proponents do not challenge that, but instead argue that under any interference standard, the proposed channel substitution will not result in objectionable interference to WJAN-CA.

8. In applying the interference standard of 2 percent of WJAN-CA's service population, it was previously unnecessary to discuss Proponents' interference prediction methodology – whether based on the Commission's standard computer program or Proponents' alternative showing (discussed *infra.*) it was below 2 percent.[5] However, we must now re-examine the technical information submitted by Proponents to assure compliance with Section 73.623(c)(5) of the Rules. In this regard, the technical information initially submitted in support of School Board's requested channel substitution was specifically identified as based on Longley-Rice propagation methods, including the use of the alternative showing employing a 2-km cell size with a terrain profile step size of 0.1 km to demonstrate lack of unacceptable interference. The *1998 Public* ***Notice*** permits a DTV applicant to, among other things, submit a technical interference study based on a finer resolution than the Commission's standard, and request Commission review it on that basis. *Id.*, at 2. As explained by School Board in its original submission, and based on its explanation of the use of the alternative calculation, it demonstrated that no more than 0.03 percent new interference would be caused to WJAN-CA's service population.[6] Proponents' subsequent interference study, showing interference to 0.42 percent

[5] The 1.03% new interference determination was consistent with the Commission's standard computational model based on a 2-km cell size with a 1-km terrain profile step size.

new interference to WJAN-CA based on the use of the even higher resolution 1-km cell size measurement, is an even more accurate interference calculation.' Thus, even rejecting the more accurate figures subsequently submitted, as Sherjan advocates, the proposed channel change results in new interference to less than 0.5 percent of WJAN-CA's current service population. We are not persuaded by Sherjan's argument that the use of 1-km cell size resolution is inappropriate to calculate new interference in this specific case. Moreover, our independent analysis of Proponents' interference showing indicates that School Board's proposal complies with Section 73.623(c)(5) of the Commission's Rules with respect to WJAN-CA, and is otherwise acceptable.

9. Accordingly, IT IS ORDERED, That the Petition for Reconsideration filed by Sherjan Broadcasting Company, Inc. IS GRANTED to the extent indicated herein, and IS DENIED in all other respects.

10. IT IS FURTHER ORDERED, That our action taken at the request of The School Board of Broward County, Florida ("School Board"), licensee of noncommercial educational station WPPB-TV, NTSC Channel *63, Boca Raton, Florida, substituting DTV Channel *40 at Boca Raton, Florida, for station WPPB-TV's assigned DTV Channel *44 IS AFFIRMED.

FEDERAL COMMUNICATIONS COMMISSION

Barbara A. Kreisman
Chief, Video Division
Media Bureau

[6] ***See*** Joint Petition for Rulemaking (MM Docket 00-138), filed February 8, 2000, Engineering Statement **p.** 1.

[7] In this regard, the two interference studies showed similar areas that would be affected by the proposed channel change, but the percentage of population affected is a result of the more precise interference study based on a 1-km cell size measurement.