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June 13, 1997

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JUN 13 1997
Federal Communications Commission
Office of Secretary

HAND DELIVERY

Acting Secretary
Federal Communications Commission
Room 222
1919 M Street, N.W.
Washington, D.C. 20554

Re: MM Docket No. 87-268
Petition for Reconsideration of
Puerto Rico Public Broadcasting Corporation

Dear Mr. Caton:

Enclosed are the original and four (4) copies of Puerto Rico Public Broadcasting Corporation's Petition for Reconsideration of the Sixth Report and Order in the captioned rulemaking.

Please stamp the enclosed copy as received and return it to our courier.

Very truly yours,

John P. Bankson, Jr.

Enclosures

JPB/jb

DC:38955_1.WP5

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

RECEIVED
JUN 13 1997
Federal Communications Commission
Office of Secretary

In the Matter of	)	
	)	
Advanced Television Systems	)	
and Their Impact upon the	)	MM Docket No. 87-268
Existing Television Broadcast	)	
Service	)	

To the Commission

PETITION FOR RECONSIDERATION

Puerto Rico Public Broadcasting Corporation, by its attorneys and pursuant to 47 U.S.C. § 405 and 47 CFR § 1.429, petitions for reconsideration of the FCC's Sixth Report and Order (SR&O) in the above captioned rulemaking released April 21, 1997 [FCC 97-115]. This filing is timely within 30 days of publication of the Summary in the Federal Register on May 14, 1997, 62 Fed. Reg. 26684.

1. Puerto Rico Public Broadcasting Corporation is the licensee of WIPR-TV San Juan, PR (WIPR). It has been operating on NTSC non-commercial Channel *6 since 1958 with power of 59.8 kW. The SR&O proposes a change to Channel *55 DTV with power of 977.2 kW, and the SR&O claims a DTV/NTSC area match of 99.9%, 62 Fed. Reg. at 26707. Attached is an Engineering Statement of WIPR's consulting engineers, Cohen, Dippell and Everist, P.C., establishing that WIPR has been unable to verify the efficacy of its proposed Channel *55 DTV allotment with available technical information and consequently is unable to determine what equipment and technical configuration will be suitable for WIPR on Channel *55 DTV. Furthermore, uncertainty and potential interference problems arise from the FCC's allotment of first adjacent Channel 56 DTV to WLII (TV), Caguas-San Juan, PR.

2. Puerto Rico presents difficult and perhaps unique issues in the transition from NTSC to DTV. There are 33 television stations in Puerto Rico with DTV allotments, a very large

number for a geographic area as small as Puerto Rico, an island approximately 30 miles wide and 125 miles long, located far from the continental United States, 62 Fed. Reg. at 26717. Because of the small size and the large number of television allotments, restrictions on new DTV channels are necessarily more intense and difficult than similar restrictions in the continental United States where, for the most part, there is room for co-channel and adjacent channel interference considerations.

3. Because Puerto Rico is isolated and because its DTV allotments do not impact continental DTV allotments, implementation of DTV there can be delayed without significant impact on the overall DTV allotment scheme in the SR&O.

It is respectfully requested that, upon reconsideration, the information and data identified in the attached engineering statement be made available to WIPR's consulting engineers and undersigned counsel for analysis and comment and that the date for implementation of the Puerto Rico DTV allotments in 47 CFR §73.622 be extended until the questions raised herein are resolved.

Respectfully submitted,

PUERTO RICO PUBLIC BROADCASTING CORPORATION

By: John P. Bankson, Jr., Its attorney

Drinker Biddle & Reath
Suite 900
901 15th Street, NW
Washington, D.C. 20005-2333
(202) 842-8806

June 13, 1997

DC:38932_1.WP5

ENGINERING STATEMENT
IN SUPPORT OF
PETITION FOR RECONSIDERATION
MM DOCKET 87-268
ON BEHALF OF
PUERTO RICO PUBLIC BROADCASTING CORPORATION

JUNE 1997

COHEN, DIPPELL AND EVERIST, P.C.
CONSULTING ENGINEERS
RADIO AND TELEVISION
WASHINGTON, D.C.

COHEN, DIPPELL AND EVERIST, P. C.

City of Washington)
) ss
District of Columbia)

Donald G. Everist, being duly sworn upon his oath, deposes and states that:

He is a graduate electrical engineer, a Registered Professional Engineer in the District of Columbia, and is President of Cohen, Dippell and Everist, P.C., Consulting Engineers, Radio - Television, with offices at 1300 L Street, N.W., Suite 1100, Washington, D.C. 20005;

That his qualifications are a matter of record in the Federal Communications Commission;

That the attached engineering report was prepared by him or under his supervision and direction and

That the facts stated herein are true of his own knowledge, except such facts as are stated to be on information and belief, and as to such facts he believes them to be true.

Donald G. Everist
District of Columbia
Professional Engineer
Registration No. 5714

Subscribed and sworn to before me this 11th day of June, 1997.

Carol L. Ryan
Notary Public

My Commission Expires: 7/28/98

This engineering statement has been prepared on behalf of Puerto Rico Public Broadcasting Corporation, licensee of Station WIPR-TV ("WIPR"), San Juan, Puerto Rico. This station operates on Channel 6 with maximum NTSC facilities operating from Cerro La Santa Peak. This statement is in support of a Petition for Reconsideration for the Sixth Report and Order, MM Docket No. 87-268[1] ("Report and Order").

WIPR has authorized this firm to conduct studies and review the various aspects of the Report and Order as it applies to WIPR. This study was conducted on the impact of the Report and Order on WIPR's current NTSC service area and the interference which could result to existing service by new digital operations and the service replication by the assigned digital television ("DTV") operation.

COVERAGE ASSESSMENT

A study of WIPR's existing NTSC and proposed DTV service areas has been performed by using the National Telecommunications and Information Administration Institute for Telecommunication Sciences ("ITS") computer using the Communication System Performance Model--Point to Point Irregular Terrain HDTV Model ("HDTV" Model). The HDTV Model uses the Longley-Rice propagation methodology and evaluates in grid cell size 0.75-1.5 km with 3-second terrain data intervals between every 90 meters to 100 meters at one degree intervals. This HDTV Model was selected since it is believed

[1]MM Docket No. 87-268, "In the Matter of Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service," adopted April 3, 1997.

it generally replicates the Commission's DTV assignment model. An ITS representative believes its model follows the Commission's decisions in the Report and Order.

However, while it is useful using the HDTV Model, it does not provide the guidance for the Longley-Rice model used by the Commission to determine the DTV power to be authorized and the process by which the DTV frequency was selected. Without that vital information, WIPR cannot make an assessment whether its inherent service area is being adequately protected and whether the existing NTSC service is being replicated.

CONCERNS

The Commission in Section 73.622 and Section 73.623, specifies that OET Bulletin 69 will provide the details of its calculation methodology for service and interference determinations. Furthermore, the Report and Order does not disclose how the DTV assignments were made nor has any formal clarifying information been supplied.

Until such specific information is available, no meaningful technical evaluations can be performed. These evaluations will have a direct impact on equipment decisions such as antenna and the DTV power to be used during the transition period. The Commission's DTV criteria need to be well understood before a meaningful station DTV implementation plan can be developed.

Furthermore, initially the DTV antenna may be side-mounted on an existing tower. However, there is no assurance that a side-mounted UHF antenna will replicate the pattern that is envisioned by the FCC for the DTV operation. Obviously if pattern replication is

placed in doubt, the replicated service area projected by the Commission cannot be achieved.

FIRST ADJACENT DTV OPERATION

WIPR is concerned with a first-adjacent channel DTV facility assigned to WLII(TV), another Puerto Rico television station, to the WIPR DTV frequency.[2] WIPR believes that based upon tests performed in October 1996 by the Advanced Television Technology Center that the first-adjacent channel criteria used for the Commission's DTV assignment model may be inappropriate. It is understood that all first-adjacent channel ratios used in the Commission's DTV model are based upon data measured using a linear (Class A) testbed. With the high average UHF powers (over 900 kW) indicated for WIPR and WLII-DTV facilities can only be generated with RF amplifiers operating in the Class A-B mode. It is well known that intermodulation products will occur when the RF power is developed in devices that are not perfectly linear. In addition, non-linear propagation path effects such as multipath that are associated with rugged Puerto Rico terrain also can occur. The reception of first-adjacent DTV signals in non-ideal reception conditions needs to be reviewed and revised as necessary.

[2]The WLII(TV) and WIPR transmitter sites are separated by 19.9 km (12.4 miles)

SUMMARY

Without full knowledge of the Commission's calculation methodology for service and interference and the DTV frequency assignments prevents WIPR from making a critical, independent evaluation of what impact any DTV operation may have on its NTSC current service and whether WIPR can achieve service replication by its assigned DTV operation.

CERTIFICATE OF SERVICE

I, Josefina C. Barberena, hereby certify that on this 13th day of June, 1997, a copy of the foregoing was served by hand delivery on the following:

Mr. Bruce A. Franca
Office of Engineering and Technology
Federal Communications Commission
2000 M Street, N.W.
Room 801-F
Washington, DC 20554

Josefina C. Barberena

Josefina C. Barberena

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