

Exhibit #23
Main Studio Location
Section 73.1125(a)(2)
Supplemental Method Justification

The applicant, Pan Caribbean Broadcasting De P.R., Inc., proposes to operate WVPI using a transmitter located on Crown Mountain on the island of St. Thomas, U.S. Virgin Islands. The facility will broadcast on Channel 282 (104.3 MHz), with 44 kW ERP with a coverage area that will include the eastern portion of Puerto Rico. The main studio is to be located in Fajardo, Puerto Rico, approximately 70.6 kilometers due west of the transmitter with a clear, over-water path.

Section 73.313(e) provides for the use of a supplemental method of predicting distances to contours where the terrain along pertinent radials varies widely from the average elevation of the 3 to 16 kilometer sector.

In the letter dated August 8, 2002 from Edward De La Hunt from the Federal Communications Commission (FCC) to Mark Lipp, attorney for KMAJ-FM, Topeka, KS, the Commission has stated that it will consider supplemental showings in the distance to the principal community contour. In that letter, Mr. De La Hunt outlined several guidelines for allowing the use of such supplemental contour calculations.

These guidelines support the application of Longley-Rice methodology to WVPI's proposed main studio location. Section 73.1125(a)(2) states that the main studio should be "at any location within the principal community contour of any AM, FM, or TV broadcast station licensed to the station's community of license, ...".

The guidelines are as follows:

1. *An explanation of why use of a supplemental showing is warranted.*

The terrain roughness factor (Δh) is described in Sections 73.313(f), (i) and (j)¹. The terrain surrounding the proposed transmitter location should be classified as "very flat", in that the Δh along the pertinent radial between the proposed transmitter and the main studio location is 0 meters. Please see pages 3-4 of this exhibit for a Δh report of the 270° radial. This radial has been extended to a length of 70.61 kilometers, the distance between the two reference points.

2. *A showing that the distance to the 70 dBu contour, as predicted by the supplemental method, is at least 10% larger than the distance predicted by the standard method.*

Page #5 is a distance to 70 dBu contour table using the standard FCC method according to Section 73.313(c). Page #6 is a distance to first-occurrence 70 dBu Longley-Rice ("LR") contour. Along the pertinent 270° radial, the distance to the LR contour is 72.3 kilometers from the transmitter, which is 25% greater than the 53.6 kilometer distance to the FCC 70 dBu contour.

¹ At 42 FR 25736, May 19, 1977, the effective date of §73.313(i) and (j) was stayed indefinitely, except in supplemental showings. That suspension remains in effect.

3. *Coordinates of the proposed main studio location.*

The main studio will be located in Fajardo, Puerto Rico at N. Lat. 18-21-46, W. Lng. 65-38-24. This is the existing site of station WMDD, owned and operated by Pan Caribbean Broadcasting de P.R., Inc. This location is within the proposed Longley-Rice first-occurrence 70 dBu calculated contour.

4. *A map showing and the principal community contours as predicted by the standard and supplemental contour predication method.*

This map is found on Page #7 of this exhibit. Page #8 is an enlargement of the area around the main studio location, showing 70 dBu coverage is provided by the LR first-occurrence 70 dBu.

5. *A list of assumptions and an explanation of the method used in generating the supplemental analysis.*

These exhibits were prepared using the V-Soft Communications propagation program, **Probe II**. The **Probe II** program uses 0.5 kilometer cell resolution and employs version 1.22 of Longley-Rice computer code as specified in an appendix of NTIA Report 82-100, "A Guide to the Use of the Irregular Terrain Model in the Area Prediction Mode" as modified by G.A. Hufford in a memorandum to users dated January 30th, 1985. **Probe II** utilizes the USGS 03 arc-second terrain elevation database. The program identifies the first-occurrence of the predicted 70 dBu Longley-Rice signal along each radial. It should be noted that using first-occurrence results in the most conservative contour distance under the Longley-Rice methodology.

6. *Sample calculations using the supplemental procedure.*

The Longley-Rice parameters used in this study include:

Conductivity	5 siemens/meter
Dielectric Constant	81.0
Surface Refractivity (N ₀)	370
Climate Zone	Maritime Subtropical
Receiver Height	9.1 meters above ground
Time Variability	50%
Situation Variability	50%
Antenna Polarization	Horizontal

Using these guidelines, the Longley-Rice analysis shows that the main studio will be located within the first occurrence 70 dBu contour from the proposed transmitter site and that Section 73.1125(a)(2) is satisfied.

WPVI , Benjamin Broadcasting Corpora, BLH20010831AAL

18 21 35 N.
64 58 19 W.
Azimuth of radial = 270°
Delta h=0.0 HAAT=495.2M, COR AMSL= 501.1 M M
Attenuation=1.9 dB
Radial Length = 70.61 km

000.0	0.00	000.1	73.55	000.2	73.55	000.3	70.98	000.4	70.98	000.5	65.66
000.6	65.66	000.7	64.63	000.8	64.63	000.9	59.29	001.0	59.29	001.1	50.33
001.2	50.33	001.3	50.00	001.4	50.00	001.5	50.00	001.6	50.00	001.7	49.57
001.8	49.57	001.9	49.32	002.0	49.32	002.1	48.28	002.2	48.28	002.3	47.82
002.4	47.82	002.5	47.17	002.6	47.17	002.7	46.70	002.8	46.70	002.9	45.06
003.0	45.06	003.1	44.93	003.2	44.93	003.3	43.53	003.4	43.53	003.5	7.20
003.6	7.20	003.7	0.00	003.8	0.00	003.9	0.00	004.0	0.00	004.1	0.00
004.2	0.00	004.3	0.00	004.4	0.00	004.5	0.00	004.6	0.00	004.7	0.00
004.8	0.00	004.9	0.00	005.0	0.00	005.1	0.00	005.2	0.00	005.3	0.00
005.4	0.00	005.5	0.00	005.6	0.00	005.7	0.00	005.8	0.00	005.9	0.00
006.0	0.00	006.1	0.00	006.2	0.00	006.3	0.00	006.4	0.00	006.5	0.00
006.6	0.00	006.7	0.00	006.8	0.00	006.9	0.00	007.0	0.00	007.1	0.00
007.2	0.00	007.3	0.00	007.4	0.00	007.5	0.00	007.6	0.00	007.7	0.00
007.8	0.00	007.9	0.00	008.0	0.00	008.1	0.00	008.2	0.00	008.3	0.00
008.4	0.00	008.5	0.00	008.6	0.00	008.7	0.00	008.8	0.00	008.9	0.00
009.0	0.00	009.1	0.00	009.2	0.00	009.3	0.00	009.4	0.00	009.5	0.00
009.6	0.00	009.7	0.00	009.8	0.00	009.9	0.00	010.0	0.00	010.1	0.00
010.2	0.00	010.3	0.00	010.4	0.00	010.5	0.00	010.6	0.00	010.7	0.00
010.8	0.00	010.9	0.00	011.0	0.00	011.1	0.00	011.2	0.00	011.3	0.00
011.4	0.00	011.5	0.00	011.6	0.00	011.7	0.00	011.8	0.00	011.9	0.00
012.0	0.00	012.1	0.00	012.2	0.00	012.3	0.00	012.4	0.00	012.5	0.00
012.6	0.00	012.7	0.00	012.8	0.00	012.9	0.00	013.0	0.00	013.1	0.00
013.2	0.00	013.3	0.00	013.4	0.00	013.5	0.00	013.6	0.00	013.7	0.00
013.8	0.00	013.9	0.00	014.0	0.00	014.1	0.00	014.2	0.00	014.3	0.00
014.4	0.00	014.5	0.00	014.6	0.00	014.7	0.00	014.8	0.00	014.9	0.00
015.0	0.00	015.1	0.00	015.2	0.00	015.3	0.00	015.4	0.00	015.5	0.00
015.6	0.00	015.7	0.00	015.8	0.00	015.9	0.00	016.0	0.00	016.1	0.00
016.2	0.00	016.3	0.00	016.4	0.00	016.5	0.00	016.6	0.00	016.7	0.00
016.8	0.00	016.9	0.00	017.0	0.00	017.1	0.00	017.2	0.00	017.3	0.00
017.4	0.00	017.5	0.00	017.6	0.00	017.7	0.00	017.8	0.00	017.9	0.00
018.0	0.00	018.1	0.00	018.2	0.00	018.3	0.00	018.4	0.00	018.5	0.00
018.6	0.00	018.7	0.00	018.8	0.00	018.9	0.00	019.0	0.00	019.1	0.00
019.2	0.00	019.3	0.00	019.4	0.00	019.5	0.00	019.6	0.00	019.7	0.00
019.8	0.00	019.9	0.00	020.0	0.00	020.1	0.00	020.2	0.00	020.3	0.00
020.4	0.00	020.5	0.00	020.6	0.00	020.7	0.00	020.8	0.00	020.9	0.00
021.0	0.00	021.1	0.00	021.2	0.00	021.3	0.00	021.4	0.00	021.5	0.00
021.6	0.00	021.7	0.00	021.8	0.00	021.9	0.00	022.0	0.00	022.1	0.00
022.2	0.00	022.3	0.00	022.4	0.00	022.5	0.00	022.6	0.00	022.7	0.00
022.8	0.00	022.9	0.00	023.0	0.00	023.1	0.00	023.2	0.00	023.3	0.00
023.4	0.00	023.5	0.00	023.6	0.00	023.7	0.00	023.8	0.00	023.9	0.00
024.0	0.00	024.1	0.00	024.2	0.00	024.3	0.00	024.4	0.00	024.5	0.00
024.6	0.00	024.7	0.00	024.8	0.00	024.9	0.00	025.0	0.00	025.1	0.00
025.2	0.00	025.3	0.00	025.4	0.00	025.5	0.00	025.6	0.00	025.7	0.00
025.8	0.00	025.9	0.00	026.0	0.00	026.1	0.00	026.2	0.00	026.3	0.00
026.4	0.00	026.5	0.00	026.6	0.00	026.7	0.00	026.8	0.00	026.9	0.00
027.0	0.00	027.1	0.00	027.2	0.00	027.3	0.00	027.4	0.00	027.5	0.00
027.6	0.00	027.7	0.00	027.8	0.00	027.9	0.00	028.0	0.00	028.1	0.00
028.2	0.00	028.3	0.00	028.4	0.00	028.5	0.00	028.6	0.00	028.7	0.00
028.8	0.00	028.9	0.00	029.0	0.00	029.1	0.00	029.2	0.00	029.3	0.00
029.4	0.00	029.5	0.00	029.6	0.00	029.7	0.00	029.8	0.00	029.9	0.00
030.0	0.00	030.1	0.00	030.2	0.00	030.3	0.00	030.4	0.00	030.5	0.00
030.6	0.00	030.7	0.00	030.8	0.00	030.9	0.00	031.0	0.00	031.1	0.00
031.2	0.00	031.3	0.00	031.4	0.00	031.5	0.00	031.6	0.00	031.7	0.00
031.8	0.00	031.9	0.00	032.0	0.00	032.1	0.00	032.2	0.00	032.3	0.00
032.4	0.00	032.5	0.00	032.6	0.00	032.7	0.00	032.8	0.00	032.9	0.00
033.0	0.00	033.1	0.00	033.2	0.00	033.3	0.00	033.4	0.00	033.5	0.00
033.6	0.00	033.7	0.00	033.8	0.00	033.9	0.00	034.0	0.00	034.1	0.00
034.2	0.00	034.3	0.00	034.4	0.00	034.5	0.00	034.6	0.00	034.7	0.00
034.8	0.00	034.9	0.00	035.0	0.00	035.1	0.00	035.2	0.00	035.3	0.00
035.4	0.00	035.5	0.00	035.6	0.00	035.7	0.00	035.8	0.00	035.9	0.00
036.0	0.00	036.1	0.00	036.2	0.00	036.3	0.00	036.4	0.00	036.5	0.00
036.6	0.00	036.7	0.00	036.8	0.00	036.9	0.00	037.0	0.00	037.1	0.00
037.2	0.00	037.3	0.00	037.4	0.00	037.5	0.00	037.6	0.00	037.7	0.00
037.8	0.00	037.9	0.00	038.0	0.00	038.1	0.00	038.2	0.00	038.3	0.00
038.4	0.00	038.5	0.00	038.6	0.00	038.7	0.00	038.8	0.00	038.9	0.00

039.0	0.00	039.1	0.00	039.2	0.00	039.3	0.00	039.4	0.00	039.5	0.00
039.6	0.00	039.7	0.00	039.8	0.00	039.9	0.00	040.0	0.00	040.1	0.00
040.2	0.00	040.3	0.00	040.4	0.00	040.5	0.00	040.6	0.00	040.7	0.00
040.8	0.00	040.9	0.00	041.0	0.00	041.1	0.00	041.2	0.00	041.3	0.00
041.4	0.00	041.5	0.00	041.6	0.00	041.7	0.00	041.8	0.00	041.9	0.00
042.0	0.00	042.1	0.00	042.2	0.00	042.3	0.00	042.4	0.00	042.5	0.00
042.6	0.00	042.7	0.00	042.8	0.00	042.9	0.00	043.0	0.00	043.1	0.00
043.2	0.00	043.3	0.00	043.4	0.00	043.5	0.00	043.6	0.00	043.7	0.00
043.8	0.00	043.9	0.00	044.0	0.00	044.1	0.00	044.2	0.00	044.3	0.00
044.4	0.00	044.5	0.00	044.6	0.00	044.7	0.00	044.8	0.00	044.9	0.00
045.0	0.00	045.1	0.00	045.2	0.00	045.3	0.00	045.4	0.00	045.5	0.00
045.6	0.00	045.7	0.00	045.8	0.00	045.9	0.00	046.0	0.00	046.1	0.00
046.2	0.00	046.3	0.00	046.4	0.00	046.5	0.00	046.6	0.00	046.7	0.00
046.8	0.00	046.9	0.00	047.0	0.00	047.1	0.00	047.2	0.00	047.3	0.00
047.4	0.00	047.5	0.00	047.6	0.00	047.7	0.00	047.8	0.00	047.9	0.00
048.0	0.00	048.1	0.00	048.2	0.00	048.3	0.00	048.4	0.00	048.5	0.00
048.6	0.00	048.7	0.00	048.8	0.00	048.9	0.00	049.0	0.00	049.1	0.00
049.2	0.00	049.3	0.00	049.4	0.00	049.5	0.00	049.6	0.00	049.7	0.00
049.8	0.00	049.9	0.00	050.0	0.00	050.1	0.00	050.2	0.00	050.3	0.00
050.4	0.00	050.5	0.00	050.6	0.00	050.7	0.00	050.8	0.00	050.9	0.00
051.0	0.00	051.1	0.00	051.2	0.00	051.3	0.00	051.4	0.00	051.5	0.00
051.6	0.00	051.7	0.00	051.8	0.00	051.9	0.00	052.0	0.00	052.1	0.00
052.2	0.00	052.3	0.00	052.4	0.00	052.5	0.00	052.6	0.00	052.7	0.00
052.8	0.00	052.9	0.00	053.0	0.00	053.1	0.00	053.2	0.00	053.3	0.00
053.4	0.00	053.5	0.00	053.6	0.00	053.7	0.00	053.8	0.00	053.9	0.00
054.0	0.00	054.1	0.00	054.2	0.00	054.3	0.00	054.4	0.00	054.5	0.00
054.6	0.00	054.7	0.00	054.8	0.00	054.9	0.00	055.0	0.00	055.1	0.00
055.2	0.00	055.3	0.00	055.4	0.00	055.5	0.00	055.6	0.00	055.7	0.00
055.8	0.00	055.9	0.00	056.0	0.00	056.1	0.00	056.2	0.00	056.3	0.00
056.4	0.00	056.5	0.00	056.6	0.00	056.7	0.00	056.8	0.00	056.9	0.00
057.0	0.00	057.1	0.00	057.2	0.00	057.3	0.00	057.4	0.00	057.5	0.00
057.6	0.00	057.7	0.00	057.8	0.00	057.9	0.00	058.0	0.00	058.1	0.00
058.2	0.00	058.3	0.00	058.4	0.00	058.5	0.00	058.6	0.00	058.7	0.00
058.8	0.00	058.9	0.00	059.0	0.00	059.1	0.00	059.2	0.00	059.3	0.00
059.4	0.00	059.5	0.00	059.6	0.00	059.7	0.00	059.8	0.00	059.9	0.00
060.0	0.00	060.1	0.00	060.2	0.00	060.3	0.00	060.4	0.00	060.5	0.00
060.6	0.00	060.7	0.00	060.8	0.00	060.9	0.00	061.0	0.00	061.1	0.00
061.2	0.00	061.3	0.00	061.4	0.00	061.5	0.00	061.6	0.00	061.7	0.00
061.8	0.00	061.9	0.00	062.0	0.00	062.1	0.00	062.2	0.00	062.3	0.00
062.4	0.00	062.5	0.00	062.6	0.00	062.7	0.00	062.8	0.00	062.9	0.00
063.0	0.00	063.1	0.00	063.2	0.00	063.3	0.00	063.4	0.00	063.5	0.00
063.6	0.00	063.7	0.00	063.8	0.00	063.9	0.00	064.0	0.00	064.1	0.00
064.2	0.00	064.3	0.00	064.4	0.00	064.5	0.00	064.6	0.00	064.7	0.00
064.8	0.00	064.9	0.00	065.0	0.00	065.1	0.00	065.2	0.00	065.3	0.00
065.4	0.00	065.5	0.00	065.6	0.00	065.7	0.00	065.8	0.00	065.9	0.00
066.0	0.00	066.1	0.00	066.2	0.00	066.3	0.00	066.4	0.00	066.5	0.00
066.6	0.00	066.7	0.00	066.8	0.00	066.9	0.00	067.0	0.00	067.1	0.00
067.2	0.00	067.3	0.00	067.4	0.00	067.5	0.00	067.6	0.00	067.7	0.00
067.8	0.00	067.9	0.00	068.0	0.00	068.1	0.00	068.2	0.00	068.3	0.00
068.4	0.00	068.5	0.00	068.6	0.00	068.7	0.00	068.8	0.00	068.9	0.00
069.0	0.00	069.1	0.00	069.2	0.00	069.3	0.00	069.4	0.00	069.5	0.00
069.6	0.00	069.7	0.00	069.8	0.00	069.9	0.00	070.0	0.00	070.1	0.00
070.2	0.00	070.3	0.00	070.4	0.00	070.5	0.00	070.6	0.00		

Distance to Contour Table:
Standard Prediction Method

Transmitter Information:

Call Letters: WVPINew
File Number: BLH20010831AAL
Latitude: 18-21-35 N
Longitude: 064-58-19 W
ERP: 44.00 kW
Channel: 282
Frequency: 104.3 MHz
AMSL Height: 501.1 m
Elevation: 440.4 m
HAAT: 492.8 m
Horiz. Antenna Pattern: Omni
Vert. Elevation Pattern: No

Type of curve: FCC
Location Variability: 50.0 %
Time Variability: 50.0 %
Field Strength: 70.00 dBuV/m

Primary Terrain: V-Soft US 3 Arc-Second Database
Secondary Terrain: V-Soft World 30 Arc-Second Database

Bearing (deg)	Distance (km)	HAAT (m)
-----	-----	-----
0.0	54.1	498.1
45.0	54.1	501.1
90.0	51.9	457.1
135.0	54.1	500.8
180.0	54.1	501.1
225.0	54.1	501.1
269.0	52.5	472.6
270.0	52.7	476.1
271.0	52.8	480.0
272.0	52.9	484.0
315.0	54.1	501.1

Distance to Contour Table:
Supplemental Predication Method

Transmitter Information:

Call Letters: WVPINew
File Number: BLH20010831AAL
Latitude: 18-21-35 N
Longitude: 064-58-19 W
ERP: 44.00 kW
Channel: 282
Frequency: 104.3 MHz
AMSL Height: 501.1 m
Elevation: 440.4 m
HAAT: 492.8 m
Horiz. Antenna Pattern: Omni
Vert. Elevation Pattern: No

Type of contour: Signal Calculated
Using the Longley-Rice first occurrence method at 70.0 dBu

Bearing (deg)	Distance (km)	HAAT (m)
-----	-----	-----
0.0	78.2	501.0
45.0	81.8	500.8
90.0	92.9	461.9
135.0	86.9	500.3
180.0	81.7	501.0
225.0	82.0	501.1
269.0	72.3	473.5
270.0	72.3	475.8
271.0	71.0	478.0
272.0	86.0	480.2
315.0	83.8	501.0

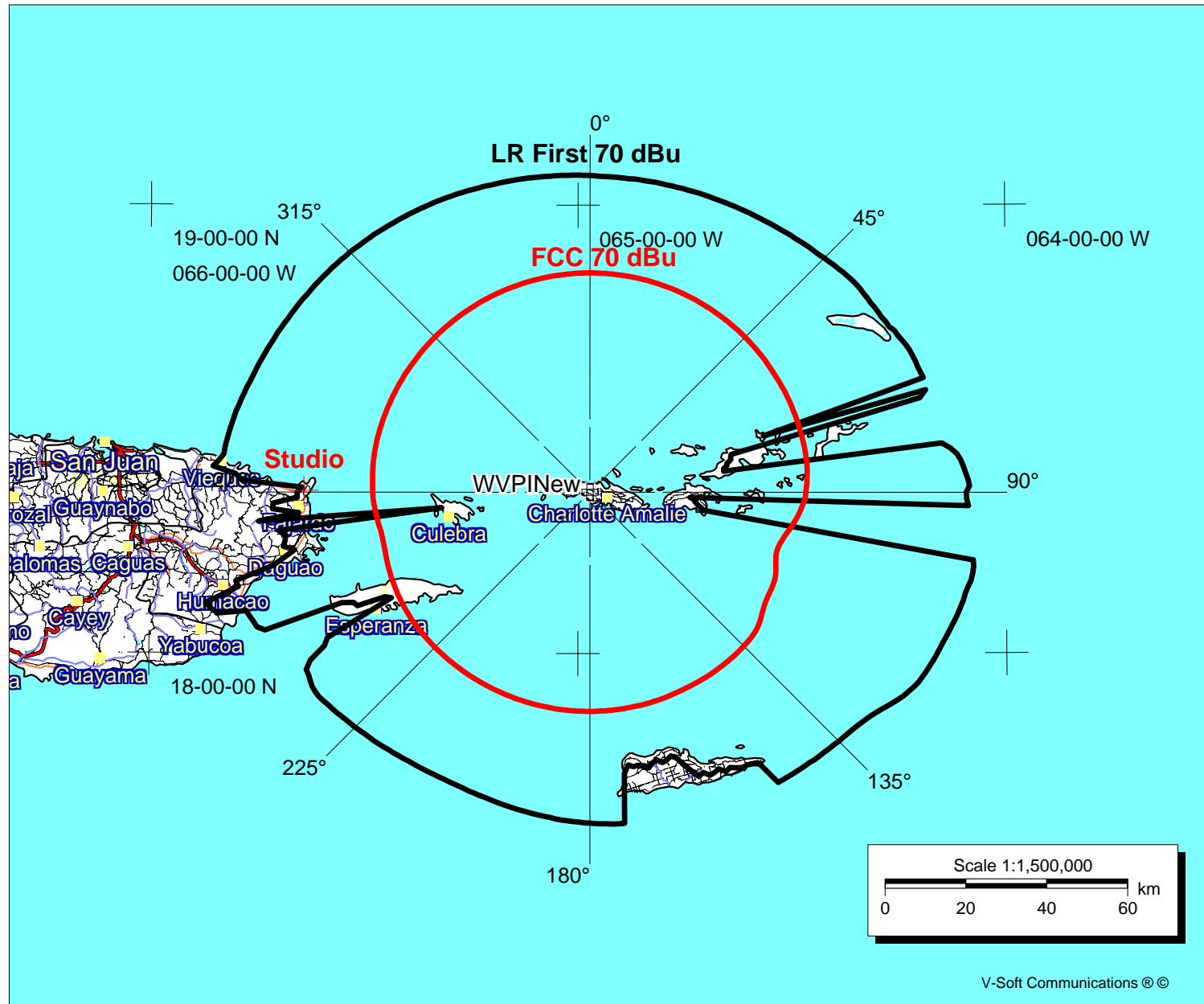
Main Studio Location

WVPINew

BLH20010831AAL
 Latitude: 18-21-35 N
 Longitude: 064-58-19 W
 ERP: 44.00 kW
 Channel: 282
 Frequency: 104.3 MHz
 AMSL Height: 501.1 m
 Elevation: 440.4 m
 HAAT: 492.8 m
 Horiz. Pattern: Omni
 Vert. Pattern: No
 Prop Model: Longley/Rice
 Climate: Marit subtropic
 Conductivity: 0.0020
 Dielec Const: 81.0
 Refractivity: 370.0
 Receiver Ht AG: 9.1 m
 Receiver Gain: 0 dB
 Time Variability: 50.0%
 Sit. Variability: 50.0%
 ITM Mode: Broadcast

October 4, 2002

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V-Soft Communications © ©

Main Studio Location (Close Up)

WVPINew

BLH20010831AAL

Latitude: 18-21-35 N

Longitude: 064-58-19 W

ERP: 44.00 kW

Channel: 282

Frequency: 104.3 MHz

AMSL Height: 501.1 m

Elevation: 440.4 m

HAAT: 492.8 m

Horiz. Pattern: Omni

Vert. Pattern: No

Prop Model: Longley/Rice

Climate: Marit subtropic

Conductivity: 5.0000

Dielec Const: 81.0

Refractivity: 370.0

Receiver Ht AG: 9.1 m

Receiver Gain: 0 dB

Time Variability: 50.0%

Sit. Variability: 50.0%

ITM Mode: Broadcast

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