

Channel-Six TV discussion: (Application of Section 73.525)

The applicant proposes to move the WPLI channel from channel 203 to a less TV-6 interference prone NCE, channel 219. This move will reduce the predicted interference WPLI causes WIPR-TV from 15,774 people to 10,905 people.

The maps on page #2 and #3 of this exhibit compare the new and old interference areas. Pages #4 through #6 show the U/D and the distance to contours used to calculate the channel 203 interference area. Pages #7 through #8 show the same for channel 219 at an increased ERP.

Since all vertical polarization is proposed and the interference area does not touch a city having a population higher than 50,000, the study powers used were calculated from the formula $\text{Study Pwr} = \text{Pwr (Vert)}/40$.

Doug Vernier
October 3, 2007

Channel-Six TV Study

WPLI - 203

BLED20060505ACP
 Latitude: 18-26-55 N
 Longitude: 066-10-26 W
 ERP: 0.0025 kW
 Channel: 203
 Frequency: 88.5 MHz
 AMSL Height: 62.0 m
 Horiz. Pattern: Omni
 Prop Model: FCC

WPLI -219

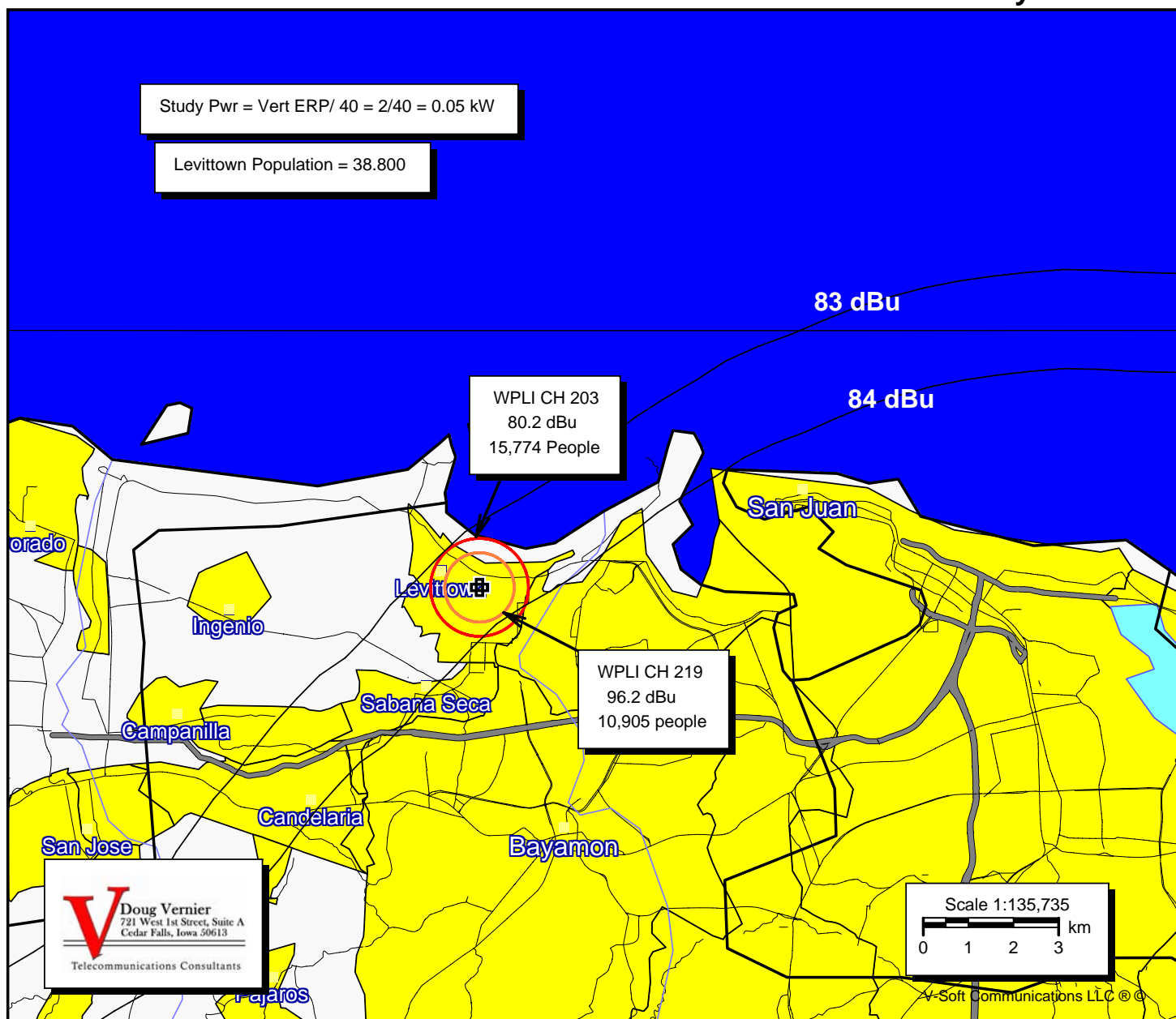
BLED20060505ACP
 Latitude: 18-26-55 N
 Longitude: 066-10-26 W
 ERP: 0.05 kW
 Channel: 219
 Frequency: 91.7 MHz
 AMSL Height: 62.0 m
 Horiz. Pattern: Omni
 Prop Model: FCC

WIPRTV

BLET19910124KE
 Latitude: 18-06-42 N
 Longitude: 066-03-05 W
 ERP: 58.90 kW
 Channel: 06+
 Frequency: 85.5 MHz
 AMSL Height: 1172.0 m
 Horiz. Pattern: Omni
 Prop Model: FCC

Study Pwr = Vert ERP/ 40 = 2/40 = 0.05 kW

Levittown Population = 38,800



Channel-Six TV Study

WPLI

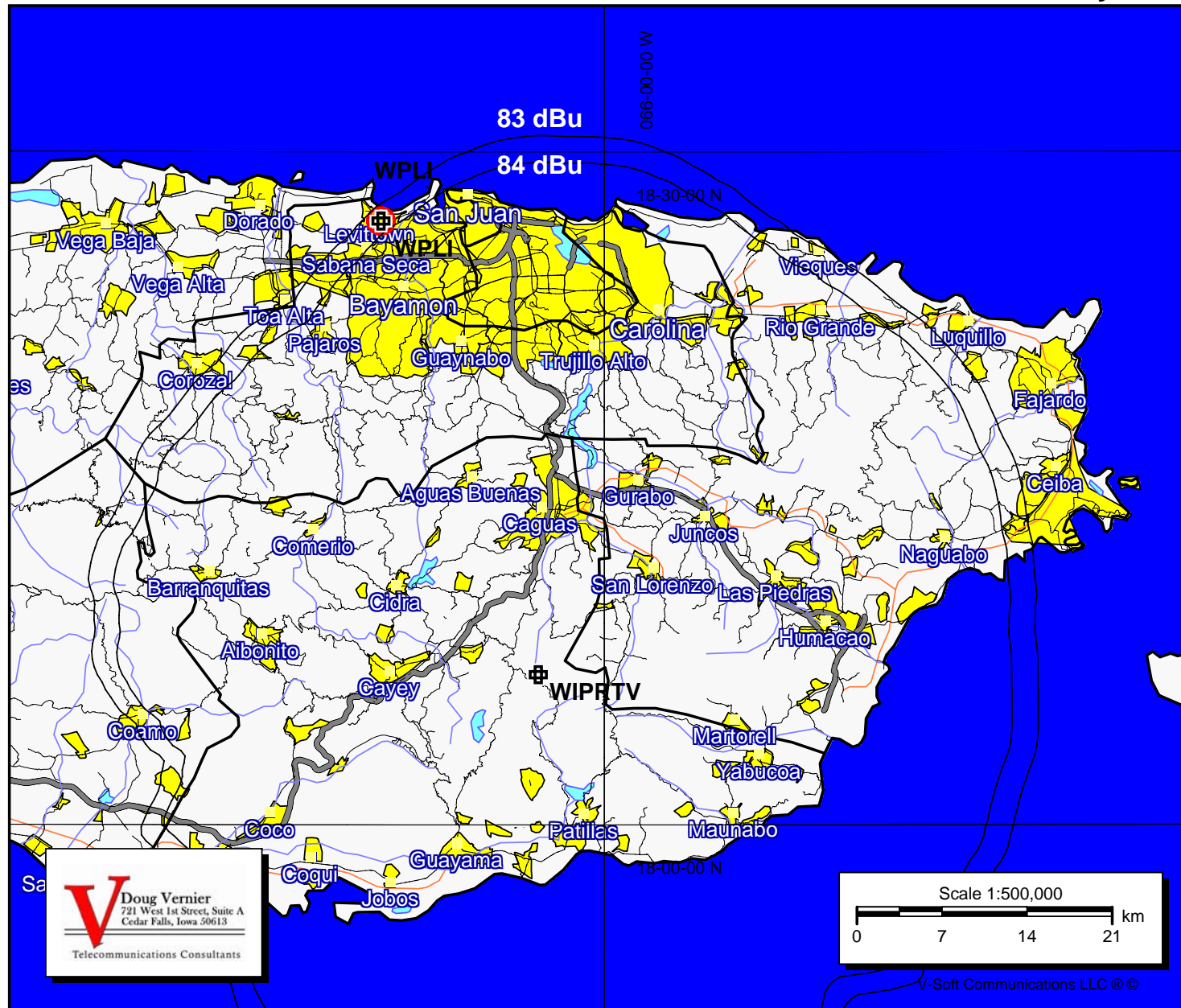
BLED20060505ACP
Latitude: 18-26-55 N
Longitude: 066-10-26 W
ERP: 0.0025 kW
Channel: 203
Frequency: 88.5 MHz
AMSL Height: 62.0 m
Horiz. Pattern: Omni
Prop Model: FCC

WPLI

BLED20060505ACP
Latitude: 18-26-55 N
Longitude: 066-10-26 W
ERP: 0.05 kW
Channel: 219
Frequency: 91.7 MHz
AMSL Height: 62.0 m
Horiz. Pattern: Omni
Prop Model: FCC

WIPRTV

BLET19910124KE
Latitude: 18-06-42 N
Longitude: 066-03-05 W
ERP: 58.90 kW
Channel: 06+
Frequency: 85.5 MHz
AMSL Height: 1172.0 m
Horiz. Pattern: Omni
Prop Model: FCC



Channel-Six TV Protection Study

WIPRTV LI 06+ 2E Dom Int 58.900 kW 825 M HAAT VHY
 San Juan PR 1172.0 M COR AMSL
 Lat= 18 06 42.0, Lng= 66 03 05.0
 Puerto Rico Public Broadcast BLET19910124KE
 Fac ID# 53859
 Dist.=39.48 km, Azi=160.9°, Rev Azi=341.0°

Direct line HAAT Grade B, 47 dBu= 131.84 km & Grade A= 75.18 km

Distance from reference to Grade B = -92.36 km

Cutoff Dist from Full Service or Class CA= 246

Maximum Co-located power= 3.1 kW

WIPRTV Signal Contour at Reference location = 83.5 dBu

CH. 203, U/D ratio = -3.3 dB, Maximum FM signal = 80.2 dBu , add 6 dB if within angle.

TV/FM D to U values

47.0	53.5	55.0	58.2	63.0	63.3	71.0	69.4	79.0	76.2	87.0	83.4
48.0	54.1	56.0	58.8	64.0	63.9	72.0	70.2	80.0	77.1	88.0	84.3
49.0	54.6	57.0	59.4	65.0	64.6	73.0	71.1	81.0	78.0	89.0	85.2
50.0	55.2	58.0	60.0	66.0	65.4	74.0	71.9	82.0	78.9	90.0	86.1
51.0	55.8	59.0	60.6	67.0	66.1	75.0	72.8	83.0	79.8	91.0	86.1
52.0	56.4	60.0	61.3	68.0	66.9	76.0	73.6	84.0	80.7	92.0	86.1
53.0	57.0	61.0	61.9	69.0	67.7	77.0	74.5	85.0	81.6	93.0	86.1
54.0	57.6	62.0	62.6	70.0	68.6	78.0	75.4	86.0	82.5	94.0	86.1

N. Lat. = 180642.0 W. Lng. = 660305.0
 HAAT and Distance to Contour - FCC Method - USGS 03 SEC
 Channel-six TV Protected contours
 WIPR-F, Puerto Rico Public Broadcasti, BLED19910107KA

Azi.	AV EL	HAAT	ERP kW	dBk	Field	83-F5	84-F5
290	453.0	719.0	125.0000	20.97	1.000	44.24	42.07
291	455.7	716.3	125.0000	20.97	1.000	44.15	41.99
292	456.8	715.2	125.0000	20.97	1.000	44.12	41.95
293	455.9	716.1	125.0000	20.97	1.000	44.15	41.98
294	458.6	713.4	125.0000	20.97	1.000	44.06	41.90
295	460.7	711.3	125.0000	20.97	1.000	43.99	41.83
296	460.8	711.2	125.0000	20.97	1.000	43.99	41.83
297	457.1	714.9	125.0000	20.97	1.000	44.11	41.95
298	449.1	722.9	125.0000	20.97	1.000	44.36	42.19
299	443.8	728.2	125.0000	20.97	1.000	44.53	42.36
300	443.4	728.6	125.0000	20.97	1.000	44.54	42.37
301	444.0	728.0	125.0000	20.97	1.000	44.53	42.35
302	447.1	724.9	125.0000	20.97	1.000	44.43	42.26
303	452.2	719.8	125.0000	20.97	1.000	44.27	42.10
304	457.4	714.6	125.0000	20.97	1.000	44.10	41.93
305	460.1	711.9	125.0000	20.97	1.000	44.01	41.85
306	461.5	710.5	125.0000	20.97	1.000	43.97	41.81
307	461.7	710.3	125.0000	20.97	1.000	43.96	41.80
308	461.3	710.7	125.0000	20.97	1.000	43.98	41.81
309	460.5	711.5	125.0000	20.97	1.000	44.00	41.84
310	460.0	712.0	125.0000	20.97	1.000	44.02	41.85
311	461.2	710.8	125.0000	20.97	1.000	43.98	41.82
312	462.7	709.3	125.0000	20.97	1.000	43.93	41.77
313	464.6	707.4	125.0000	20.97	1.000	43.87	41.71
314	468.4	703.6	125.0000	20.97	1.000	43.75	41.59
315	467.4	704.6	125.0000	20.97	1.000	43.78	41.62
316	465.2	706.8	125.0000	20.97	1.000	43.85	41.69
317	460.9	711.1	125.0000	20.97	1.000	43.99	41.82
318	459.0	713.0	125.0000	20.97	1.000	44.05	41.89
319	457.1	714.9	125.0000	20.97	1.000	44.11	41.95
320	456.9	715.1	125.0000	20.97	1.000	44.12	41.95
321	459.1	712.9	125.0000	20.97	1.000	44.05	41.88
322	461.8	710.2	125.0000	20.97	1.000	43.96	41.80
323	463.2	708.8	125.0000	20.97	1.000	43.91	41.75
324	465.5	706.5	125.0000	20.97	1.000	43.84	41.68
325	468.0	704.0	125.0000	20.97	1.000	43.76	41.60
326	471.1	700.9	125.0000	20.97	1.000	43.66	41.50
327	472.2	699.8	125.0000	20.97	1.000	43.62	41.47
328	460.6	711.4	125.0000	20.97	1.000	44.00	41.83
329	451.3	720.7	125.0000	20.97	1.000	44.29	42.12
330	441.3	730.7	125.0000	20.97	1.000	44.61	42.44
331	433.3	738.7	125.0000	20.97	1.000	44.86	42.68
332	422.6	749.4	125.0000	20.97	1.000	45.19	43.01
333	412.5	759.5	125.0000	20.97	1.000	45.50	43.31
334	403.7	768.3	125.0000	20.97	1.000	45.76	43.57
335	394.9	777.1	125.0000	20.97	1.000	46.03	43.83
336	390.6	781.4	125.0000	20.97	1.000	46.15	43.95
337	380.7	791.3	125.0000	20.97	1.000	46.44	44.24
338	365.7	806.3	125.0000	20.97	1.000	46.86	44.66
339	355.1	816.9	125.0000	20.97	1.000	47.16	44.95
340	342.2	829.8	125.0000	20.97	1.000	47.51	45.29

AMSL= 1172 M

N. Lat. = 182655 W. Lng. = 661026
 HAAT and Distance to Contour - FCC Method - USGS 03 SEC

WPLI on CH 203 Channel-six Interference contour distances

Azi.	AV EL	HAAT	ERP kW	dBk	Field	80.2-F1
000	0.0	46.4	0.0025	-26.02	1.000	1.08
010	0.0	46.4	0.0025	-26.02	1.000	1.08
020	0.0	46.4	0.0025	-26.02	1.000	1.08
030	0.0	46.4	0.0025	-26.02	1.000	1.08
040	0.0	46.4	0.0025	-26.02	1.000	1.08
050	0.0	46.3	0.0025	-26.02	1.000	1.08
060	0.1	46.2	0.0025	-26.02	1.000	1.08
070	0.3	46.0	0.0025	-26.02	1.000	1.08
080	0.2	46.2	0.0025	-26.02	1.000	1.08
090	4.3	42.0	0.0025	-26.02	1.000	1.08
100	1.1	45.3	0.0025	-26.02	1.000	1.08
110	10.7	35.7	0.0025	-26.02	1.000	1.08
120	23.3	23.1	0.0025	-26.02	1.000	1.08
130	34.9	11.4	0.0025	-26.02	1.000	1.08
140	47.3	-1.0	0.0025	-26.02	1.000	1.08
150	41.8	4.5	0.0025	-26.02	1.000	1.08
160	57.7	-11.3	0.0025	-26.02	1.000	1.08
170	68.1	-21.8	0.0025	-26.02	1.000	1.08
180	94.7	-48.4	0.0025	-26.02	1.000	1.08
190	91.7	-45.3	0.0025	-26.02	1.000	1.08
200	69.0	-22.7	0.0025	-26.02	1.000	1.08
210	67.0	-20.7	0.0025	-26.02	1.000	1.08
220	72.5	-26.1	0.0025	-26.02	1.000	1.08
230	78.0	-31.6	0.0025	-26.02	1.000	1.08
240	59.3	-13.0	0.0025	-26.02	1.000	1.08
250	42.9	3.4	0.0025	-26.02	1.000	1.08
260	22.4	23.9	0.0025	-26.02	1.000	1.08
270	21.1	25.3	0.0025	-26.02	1.000	1.08
280	5.9	40.5	0.0025	-26.02	1.000	1.08
290	0.2	46.1	0.0025	-26.02	1.000	1.08
300	0.1	46.3	0.0025	-26.02	1.000	1.08
310	0.0	46.3	0.0025	-26.02	1.000	1.08
320	0.0	46.4	0.0025	-26.02	1.000	1.08
330	0.0	46.3	0.0025	-26.02	1.000	1.08
340	0.0	46.3	0.0025	-26.02	1.000	1.08
350	0.0	46.3	0.0025	-26.02	1.000	1.08

Ave El= 25.41 M HAAT= 20.94 M AMSL= 46.35 M

Channel-Six TV Protection Study

WIPRTV LI 06+ 2E Dom Int 58.900 kW 825 M HAAT VHY
 San Juan PR 1172.0 M COR AMSL
 Lat= 18 06 42.0, Lng= 66 03 05.0
 Puerto Rico Public Broadcast BLET19910124KE
 Fac ID# 53859
 Dist.=39.48 km, Azi=160.9°, Rev Azi=341.0°

Direct line HAAT Grade B, 47 dBu= 131.84 km & Grade A= 75.18 km

Distance from reference to Grade B = -92.36 km

Cutoff Dist from Full Service or Class CA= 159

Maximum Co-located power= 100 kW

WIPRTV Signal Contour at Reference location = 83.5 dBu

CH. 219, U/D ratio = 12.6 dB, Maximum FM signal = 96.2 dBu , add 6 dB if within angle.

TV/FM D to U values

47.0	83.0	55.0	81.6	63.0	82.0	71.0	85.6	79.0	92.3	87.0	99.2
48.0	82.9	56.0	81.5	64.0	82.2	72.0	86.4	80.0	93.2	88.0	100.1
49.0	82.8	57.0	81.5	65.0	82.4	73.0	87.2	81.0	94.0	89.0	101.0
50.0	82.8	58.0	81.5	66.0	82.8	74.0	88.0	82.0	94.9	90.0	101.8
51.0	82.4	59.0	81.5	67.0	83.3	75.0	88.8	83.0	95.7	91.0	101.8
52.0	82.1	60.0	81.6	68.0	83.7	76.0	89.7	84.0	96.6	92.0	101.8
53.0	81.8	61.0	81.7	69.0	84.3	77.0	90.5	85.0	97.4	93.0	101.8
54.0	81.7	62.0	81.8	70.0	85.0	78.0	91.4	86.0	98.3	94.0	101.8

N. Lat. = 182655 W. Lng. = 661026
 HAAT and Distance to Contour - FCC Method - USGS 03 SEC

WPLI on CH 219 Channel-six Interference contour distances

Azi.	AV EL	HAAT	ERP kW	dBk	Field	96.2-F1
000	0.0	46.4	0.0500	-13.01	1.000	0.77
010	0.0	46.4	0.0500	-13.01	1.000	0.77
020	0.0	46.4	0.0500	-13.01	1.000	0.77
030	0.0	46.4	0.0500	-13.01	1.000	0.77
040	0.0	46.4	0.0500	-13.01	1.000	0.77
050	0.0	46.3	0.0500	-13.01	1.000	0.77
060	0.1	46.2	0.0500	-13.01	1.000	0.77
070	0.3	46.0	0.0500	-13.01	1.000	0.77
080	0.2	46.2	0.0500	-13.01	1.000	0.77
090	4.3	42.0	0.0500	-13.01	1.000	0.77
100	1.1	45.3	0.0500	-13.01	1.000	0.77
110	10.7	35.7	0.0500	-13.01	1.000	0.77
120	23.3	23.1	0.0500	-13.01	1.000	0.77
130	34.9	11.4	0.0500	-13.01	1.000	0.77
140	47.3	-1.0	0.0500	-13.01	1.000	0.77
150	41.8	4.5	0.0500	-13.01	1.000	0.77
160	57.7	-11.3	0.0500	-13.01	1.000	0.77
170	68.1	-21.8	0.0500	-13.01	1.000	0.77
180	94.7	-48.4	0.0500	-13.01	1.000	0.77
190	91.7	-45.3	0.0500	-13.01	1.000	0.77
200	69.0	-22.7	0.0500	-13.01	1.000	0.77
210	67.0	-20.7	0.0500	-13.01	1.000	0.77
220	72.5	-26.1	0.0500	-13.01	1.000	0.77
230	78.0	-31.6	0.0500	-13.01	1.000	0.77
240	59.3	-13.0	0.0500	-13.01	1.000	0.77
250	42.9	3.4	0.0500	-13.01	1.000	0.77
260	22.4	23.9	0.0500	-13.01	1.000	0.77
270	21.1	25.3	0.0500	-13.01	1.000	0.77
280	5.9	40.5	0.0500	-13.01	1.000	0.77
290	0.2	46.1	0.0500	-13.01	1.000	0.77
300	0.1	46.3	0.0500	-13.01	1.000	0.77
310	0.0	46.3	0.0500	-13.01	1.000	0.77
320	0.0	46.4	0.0500	-13.01	1.000	0.77
330	0.0	46.3	0.0500	-13.01	1.000	0.77
340	0.0	46.3	0.0500	-13.01	1.000	0.77
350	0.0	46.3	0.0500	-13.01	1.000	0.77

Ave El= 25.41 M HAAT= 20.94 M AMSL= 46.35 M