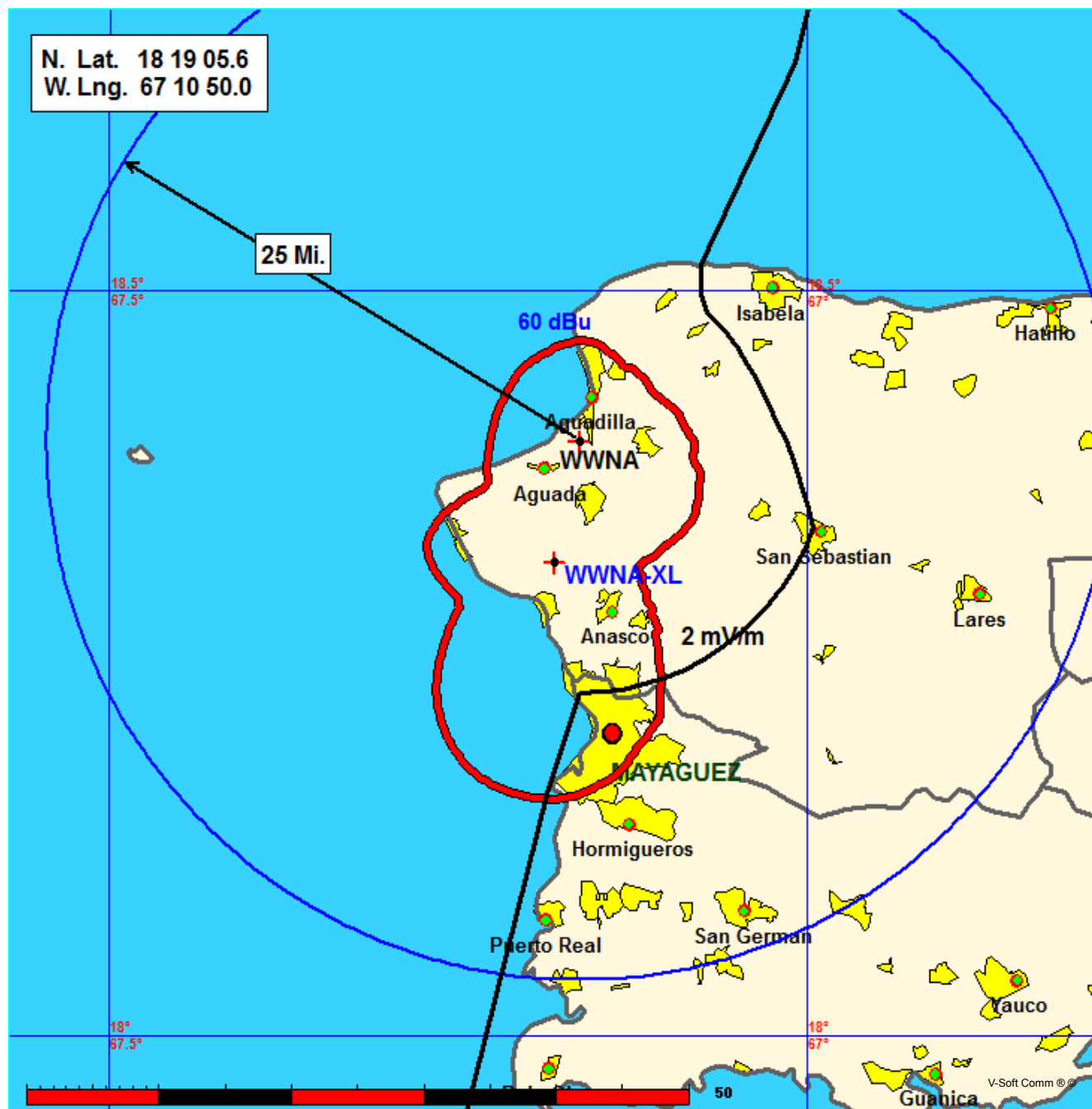
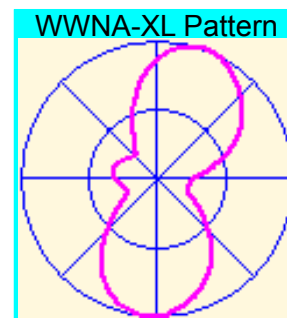


Cross-service Translator 60 dBu coverage - WWNA  
DBS RADIO, INC.

Coverage Study - FCC 30 meter  
12-30-2017

WWNA-XL CH260 D , 0.06 kW, 327.3m HAAT, 377.7m COR AMSL  
Service Contour = 60 dBu. Population = 188,891



N. Lat. = 18-19-05.6 W. Lng. = 67-10-50.0  
 HAAT and Distance to Contour,  
 FCC, FM 2-10 Mi, 51 pts Method - FCC 30 Meter

Distance to 60 dBu Contour of Proposed Translator

Azi.	AV EL	HAAT	ERP kw	dBk	Field	60-F5
000	18.5	359.2	0.0448	-13.49	0.864	16.02
030	108.0	269.7	0.0572	-12.43	0.976	14.68
060	98.9	278.8	0.0292	-15.34	0.698	12.71
090	166.0	211.7	0.0041	-23.89	0.261	6.64
120	87.6	290.1	0.0059	-22.28	0.314	8.65
150	45.0	332.7	0.0349	-14.57	0.763	14.48
180	0.4	377.3	0.0600	-12.22	1.000	17.70
210	0.0	377.7	0.0376	-14.24	0.792	15.70
240	7.8	369.9	0.0046	-23.37	0.277	9.00
270	7.4	370.3	0.0053	-22.76	0.297	9.39
300	46.7	331.0	0.0047	-23.28	0.280	8.61
330	18.0	359.7	0.0067	-21.77	0.333	9.90

Ave Elevation = 50.36 M HAAT = 327.34 M AMSL = 377.7

AGUADILLA

, PR

Call: WWNA

Coordinates: N 18 24 0 W 67 9 48

Frequency: 1340 kHz Number of contours: 1

Azimuth	Radiation (mV/m at one km)	Distances to Contours in Kilometers : Contour levels in mV/m. 2.000
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0.0	275.05	110.34
5.0	275.05	105.55
10.0	275.05	95.83
15.0	275.05	76.34
20.0	275.05	57.57
25.0	275.05	47.22
30.0	275.05	32.61
35.0	275.05	16.05
40.0	275.05	14.38
45.0	275.05	13.66
50.0	275.05	13.70
55.0	275.05	13.76
60.0	275.05	13.83
65.0	275.05	13.93
70.0	275.05	14.06
75.0	275.05	14.27
80.0	275.05	14.57
85.0	275.05	14.97
90.0	275.05	15.67
95.0	275.05	16.30
100.0	275.05	16.93
105.0	275.05	17.85
110.0	275.05	18.82
115.0	275.05	18.82
120.0	275.05	18.82
125.0	275.05	18.82
130.0	275.05	18.82
135.0	275.05	18.82
140.0	275.05	18.82
145.0	275.05	18.82
150.0	275.05	18.82
155.0	275.05	18.82
160.0	275.05	18.82
165.0	275.05	18.82
170.0	275.05	18.82
175.0	275.05	18.82
180.0	275.05	18.82
185.0	275.05	26.02
190.0	275.05	54.94
195.0	275.05	70.14
200.0	275.05	75.14

205.0	275.05	73.76
210.0	275.05	71.57
215.0	275.05	70.30
220.0	275.05	72.96
225.0	275.05	75.50
230.0	275.05	77.23
235.0	275.05	78.27
240.0	275.05	78.68
245.0	275.05	78.47
250.0	275.05	77.64
255.0	275.05	105.17
260.0	275.05	110.71
265.0	275.05	112.33
270.0	275.05	112.99
275.0	275.05	113.20
280.0	275.05	113.36
285.0	275.05	113.51
290.0	275.05	113.78
295.0	275.05	113.97
300.0	275.05	114.11
305.0	275.05	114.22
310.0	275.05	114.29
315.0	275.05	114.35
320.0	275.05	114.39
325.0	275.05	114.41
330.0	275.05	114.43
335.0	275.05	114.43
340.0	275.05	114.43
345.0	275.05	114.38
350.0	275.05	114.25
355.0	275.05	114.10