

SECOND ADJACENT EXHIBIT & WAIVER REQUEST

WQNB-LP

Facility ID# **196346**

Miami, Florida

Amendment – August 2016

- Waiver requested for site short-spaced on second-adjacent channel with BLH-20050225AAQ, WHYI-FM, class C0, Fort Lauderdale, FL, channel 264, facility ID 41381^[3]

Undesired-to-Desired Ratio Method

BLH-20050225AAQ f(50,50) signal	108.6 dBu ^{[1][2]}
Second-adjacent protection	+ 40 dB
Interference-zone boundary	148.6 dBu

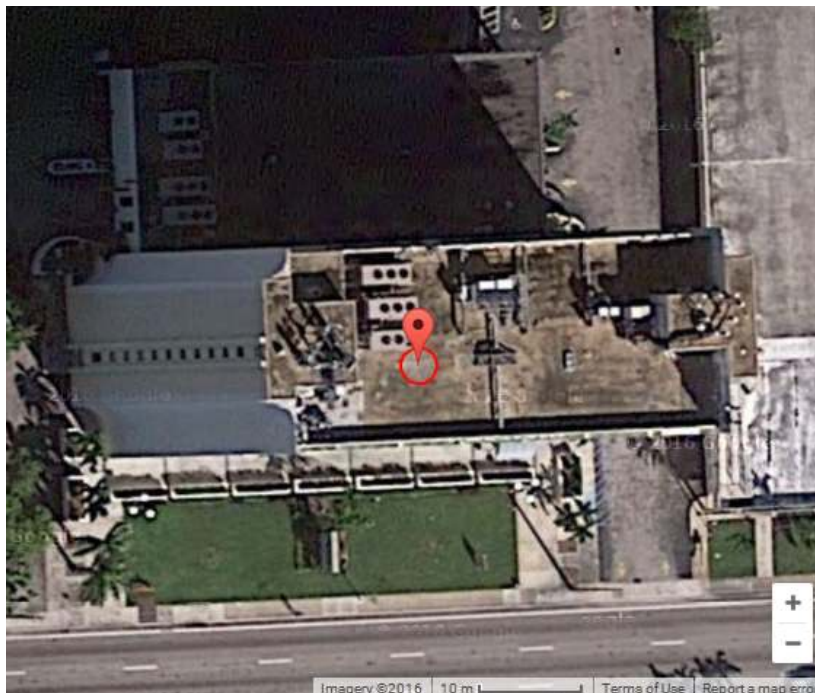
- Application further requests waiver for second-adjacent channel with BLH-20140805ACK, WKIS, C0, Boca Raton, FL, channel 260, facility ID 64001 ^[3]

Undesired-to-Desired Ratio Method

BLH-20140805ACK f(50,50) signal	108.6 dBu ^{[1][2]}
Second-adjacent protection	+ 40 dB
Interference-zone boundary	148.6 dBu

Using a Shively 6812(b) single-bay full wave antenna at 47 watts 42 meters AGL, 'worst-case' interference to WHYI-FM will be limited to .9m radius at approximately 4.1 meters above the rooftop. Elevation pattern calculations are provided below for the Shively antenna, demonstrating the field strength of the proposed antenna system falling quickly at depression angles below the horizon.

No population will be subject to interference from the proposed station according to the U/D method.



[1] tvfms() Fortran subroutine as distributed by the FCC. At distances less than or equal to 1.5 km, tvfms() uses the free-space method.

[2] FCC HAAT Calculator web page, http://transition.fcc.gov/mb/audio/bickel/haat_calculator.html

[3] CDBS database downloaded 2016-08-10 03:47:00

Shively 6812 (b) – Single-Bay Full Wave antenna

depression angle below horizon	relative field	db from relative	ERP	angular distance to contour	vertical distance	horizontal distance	clearance above ground	height above ground	interfering V/m	interfering dbu
0	1	0.00	47.00	1.786	0.000	1.786	42.000	42	26.915	148.6
5	0.996	-0.03	46.62	1.778	0.155	1.772	41.845	42	26.915	148.6
10	0.985	-0.13	45.60	1.759	0.305	1.732	41.695	42	26.915	148.6
15	0.967	-0.29	43.95	1.727	0.447	1.668	41.553	42	26.915	148.6
20	0.942	-0.52	41.71	1.682	0.575	1.581	41.425	42	26.915	148.6
25	0.91	-0.82	38.92	1.625	0.687	1.473	41.313	42	26.915	148.6
30	0.871	-1.20	35.66	1.555	0.778	1.347	41.222	42	26.915	148.6
35	0.826	-1.66	32.07	1.475	0.846	1.208	41.154	42	26.915	148.6
40	0.774	-2.23	28.16	1.382	0.888	1.059	41.112	42	26.915	148.6
45	0.717	-2.89	24.16	1.280	0.905	0.905	41.095	42	26.915	148.6
50	0.654	-3.69	20.10	1.168	0.895	0.751	41.105	42	26.915	148.6
55	0.586	-4.64	16.14	1.046	0.857	0.600	41.143	42	26.915	148.6
60	0.514	-5.78	12.42	0.918	0.795	0.459	41.205	42	26.915	148.6
65	0.437	-7.19	8.98	0.780	0.707	0.330	41.293	42	26.915	148.6
70	0.357	-8.95	5.99	0.637	0.599	0.218	41.401	42	26.915	148.6
75	0.273	-11.28	3.50	0.487	0.471	0.126	41.529	42	26.915	148.6
80	0.186	-14.61	1.63	0.332	0.327	0.058	41.673	42	26.915	148.6
85	0.096	-20.35	0.43	0.171	0.171	0.015	41.829	42	26.915	148.6
90	0.001	-60.00	0.00	0.002	0.002	0.000	41.998	42	26.915	148.6

TOWAIR CALCULATIONS



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*** NOTICE ***

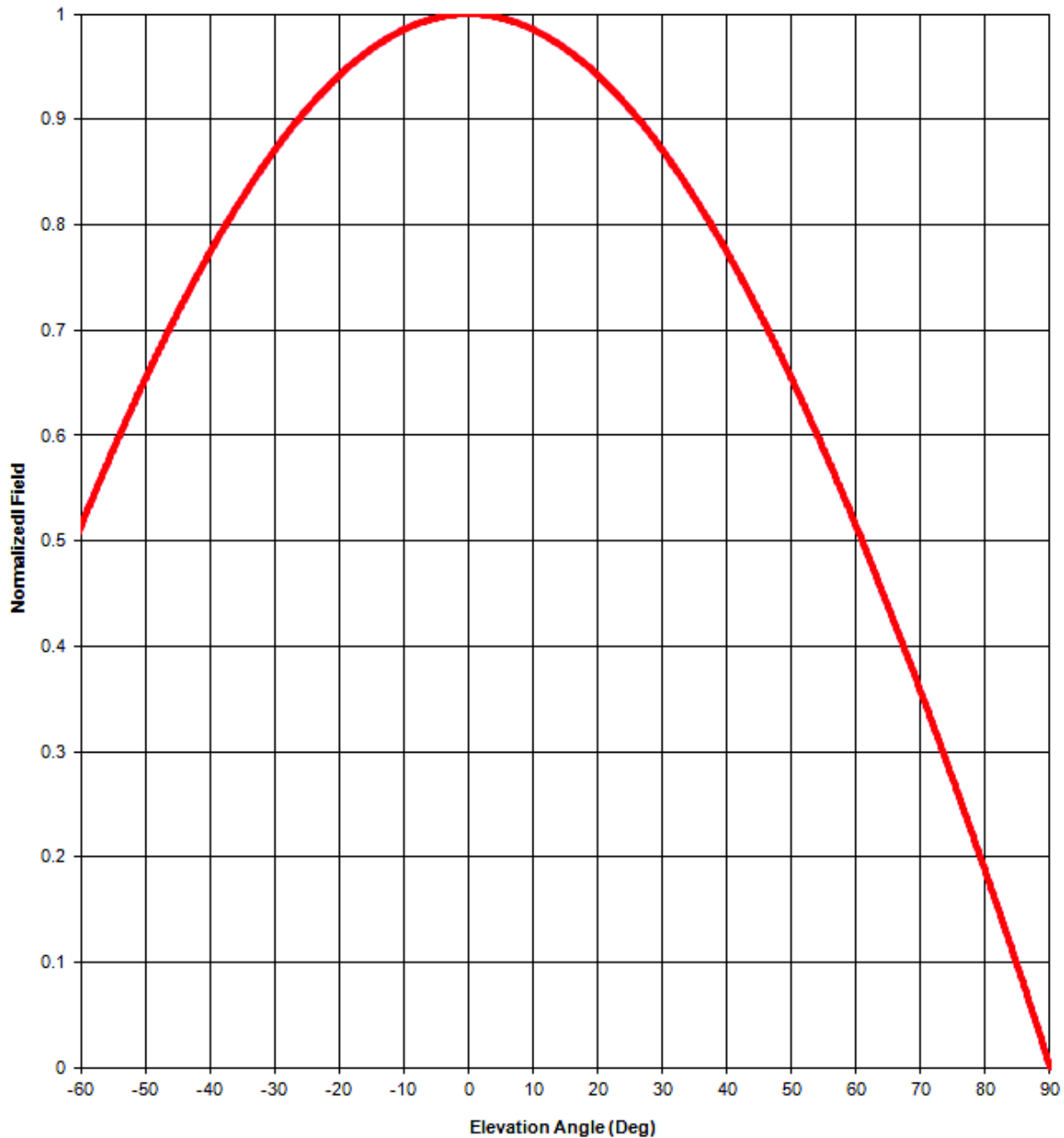
TOWAIR's findings are not definitive or binding, and we cannot guarantee that the data in TOWAIR are fully current and accurate. In some instances, TOWAIR may yield results that differ from application of the criteria set out in 47 C.F.R. Section 17.7 and 14 C.F.R. Section 77.13. A positive finding by TOWAIR recommending notification should be given considerable weight. On the other hand, a finding by TOWAIR recommending either for or against notification is not conclusive. It is the responsibility of each ASR participant to exercise due diligence to determine if it must coordinate its structure with the FAA. TOWAIR is only one tool designed to assist ASR participants in exercising this due diligence, and further investigation may be necessary to determine if FAA coordination is appropriate.

DETERMINATION Results	
Structure does not require registration. The structure meets the 6.10-meter (20-foot) Rule criteria.	
Your Specifications	
NAD83 Coordinates	
Latitude	25-55-44.3 north
Longitude	080-11-14.3 west
Measurements (Meters)	
Overall Structure Height (AGL)	43
Support Structure Height (AGL)	37
Site Elevation (AMSL)	2.4
Structure Type	
BMAST - Building with Mast	

[Tower Construction Notifications](#)

Notify Tribes and Historic Preservation Officers of your plans to build a tower.

Elevation pattern



Antenna model: 6812b, single bay

Test frequency: 98.1 MHz

Gain (maximum):

Power	dB
0.46	-3.39 dB

Document No. 6812b 1-bay fw (130701)

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Degrees	Rel. Field
1	1.000
2	0.999
3	0.999
4	0.998
5	0.996
6	0.995
7	0.993
8	0.991
9	0.988
10	0.985
11	0.982
12	0.979
13	0.975
14	0.971
15	0.967
16	0.963
17	0.958
18	0.953

Degrees	Rel. Field
19	0.948
20	0.942
21	0.936
22	0.930
23	0.924
24	0.917
25	0.910
26	0.903
27	0.895
28	0.887
29	0.879
30	0.871
31	0.862
32	0.854
33	0.845
34	0.835
35	0.826
36	0.816

Degrees	Rel. Field
37	0.806
38	0.796
39	0.785
40	0.774
41	0.763
42	0.752
43	0.741
44	0.729
45	0.717
46	0.705
47	0.693
48	0.680
49	0.667
50	0.654
51	0.641
52	0.628
53	0.614
54	0.600

Degrees	Rel. Field
55	0.586
56	0.572
57	0.558
58	0.544
59	0.529
60	0.514
61	0.499
62	0.484
63	0.469
64	0.453
65	0.437
66	0.422
67	0.406
68	0.390
69	0.373
70	0.357
71	0.341
72	0.324

Degrees	Rel. Field
73	0.307
74	0.290
75	0.273
76	0.256
77	0.239
78	0.221
79	0.204
80	0.186
81	0.168
82	0.151
83	0.133
84	0.114
85	0.096
86	0.078
87	0.059
88	0.040
89	0.021
90	0.000

Elevation Pattern Tabulation

Antenna model: 6812b, single bay

Relative Field at 0° Depression = 1.000