WDVS-LP FM Miami, FL - Facility ID# 197367

Engineering Exhibit – October 2020

Minor move modification for Low Power FM facility.

Engineering parameters

COORDINATES	25 45 55.23 N, 080 13 38.92 W
ELEVATION	2.5 meters
AMSL	43 meters
HAAT	46 meters
CHANNEL	266 / 101.1 MHz
ERP	45 watts

Analysis of grandfathered short-spacing with translator

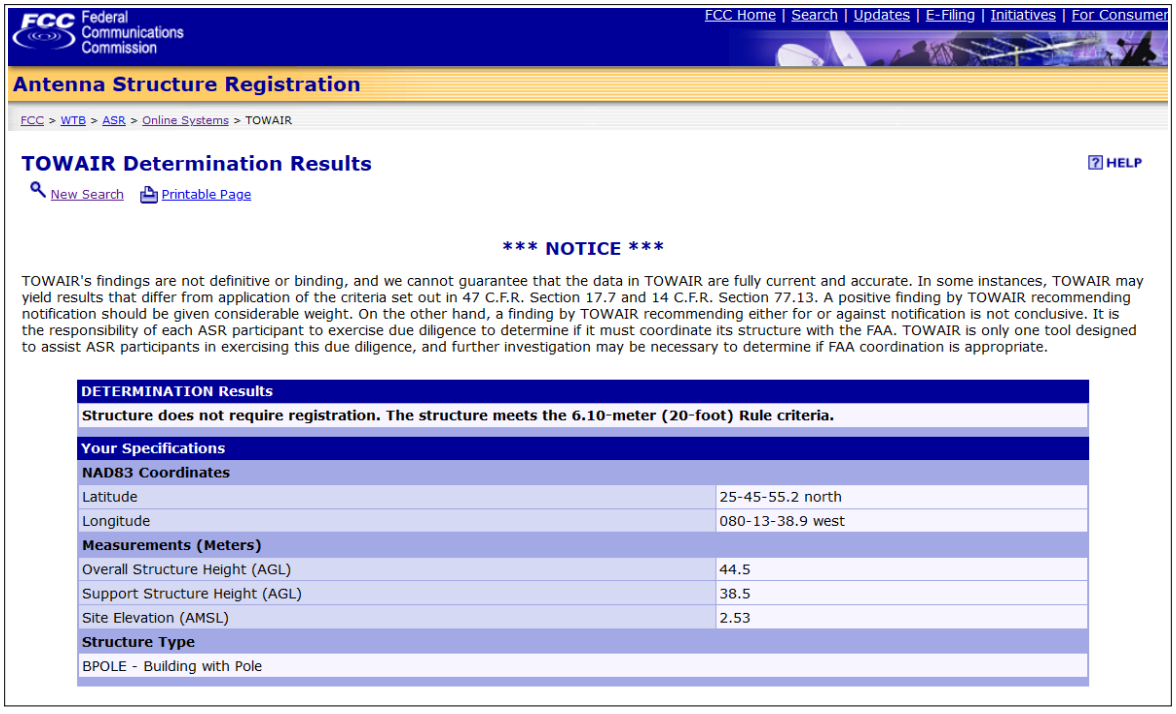
In September 2019, FM Translator application BMPFT-20190813AAE was granted a permit. The application imposed short-spacing to WDVS-LP at 18.2 kilometers, thereby limiting relocation options to a new viable location.

The instant application, now spaced at 19.4 kilometers from the coordinates listed in application BMPFT-20190813AAE, does not increase short-spacing with the Translator.

New location is therefore compliant with the requirements of 47 CFR § 73.807(a)(1).

TOWAIR calculations

Antenna will be mounted on a pole on the roof of a building structure.
Attached TOWAIR calculations confirms height & location as clearing FAA requirements.



FCC Federal Communications Commission

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Antenna Structure Registration

FCC > WTB > ASR > Online Systems > TOWAIR

TOWAIR Determination Results

HELP

New Search Printable Page

***** 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	25-45-55.2 north
Longitude	080-13-38.9 west
Measurements (Meters)	
Overall Structure Height (AGL)	44.5
Support Structure Height (AGL)	38.5
Site Elevation (AMSL)	2.53
Structure Type	
BPOLE - Building with Pole	

Second Adjacent Exhibit & Waiver Request

Application respectfully requests waiver pursuant to Section 73.807(e)(1).
Exhibit is provided below demonstrates the facility will cause no interference to any population

The attached D/U Ratio Study using FCC 30 Meter Terrain calculates WHYI with an estimated signal strength of 86.94 dBuV/m, and WLYF calculated to 84.73 dBuV/m. With an additional 40 dBu protection rounded to the nearest decibel, WLYF is protected to 125 dBu.

Specifying a two-bay Nicom BKG-77 antenna with half-wave spacing at 45 watts ERP, a worst-case interference radius is calculated to a 16.4 meters radius at 7.7 meters below the center of radiation. Antenna mast will extrude 6 meters above an unoccupied structure at top of building.

Any residual interference will remain sufficiently contained above the upper most occupied floor by more than 5 meters. No population will receive interference according to the undesired-to-desired ratio method.

Engineering Study
Export of D/U Ratio calculations

WLYF signal calculations at reference point:

Point Information Report

Latitude: 25 45 55.23 N
Longitude: 80 13 38.92 W

Signal Strength: 84.73 dBuV/m
Elevation: 26.784 m

Distance From Transmitter: 22.40 km
Azimuth From Transmitter: 184 degrees

Call Letters: WLYF
File Number: BLH20090828ADS
Latitude: 25-58-00 N
Longitude: 080-12-42.80 W
ERP: 100.00 kW
Channel: 268
Frequency: 101.5 MHz
AMSL Height: 250.2 m
Elevation: 2.1 m
Horiz. Antenna Pattern: Omni
Vert. Elevation Pattern: No

WHYI signal calculations at reference point:

Point Information Report

Latitude: 25 45 55.23 N
Longitude: 80 13 38.92 W

Signal Strength: 89.447 dBuV/m
Elevation: 26.784 m

Distance From Transmitter: 22.47 km
Azimuth From Transmitter: 185 degrees

Call Letters: WHYI-FM
File Number: BLH20050225AAQ
Latitude: 25-58-02 N
Longitude: 080-12-34 W
ERP: 100.00 kW
Channel: 264
Frequency: 100.7 MHz
AMSL Height: 308.0 m
Elevation: 2.0 m
Horiz. Antenna Pattern: Directional
Vert. Elevation Pattern: No

Study Information:

D/U Ratio Study

Signal Resolution: 0.5 km
Study Date: 10/22/2020

Land Cover was not considered in this study.

Primary Terrain: FCC 30 Meter Terrain
Secondary Terrain: GLOBE 30 Second World Database
Coordinate System: NAD83/WGS84

Transmitters:

Transmitter Information:

Call Letters: WDVS-LP
Latitude: 25 45 55.23 N
Longitude: 80 13 38.92 W
ERP: 0.045 kW
Channel: 266
Frequency: 101.1 MHz
AMSL Height: 43.0 m
Elevation: 2.53 m
Horiz. Antenna Pattern: Omni
Vert. Elevation Pattern: No
Propagation Model: Longley-Rice
Climate: Continental temperate
Conductivity: 0.0050
Dielectric Constant: 15.0
Refractivity: 311.0
Receiver Height AG: 9.1 m
Receiver Gain: 0 dB
Time Variability: 50.0%
Situation Variability: 50.0%
ITM Mode: Broadcast

Transmitter Information:

Call Letters: WHYI-FM
File Number: BLH20050225AAQ
Latitude: 25-58-02 N
Longitude: 080-12-34 W
ERP: 100.00 kW
Channel: 264
Frequency: 100.7 MHz
AMSL Height: 308.0 m
Elevation: 2.0 m
Horiz. Antenna Pattern: Directional
Vert. Elevation Pattern: No
Propagation Model: Longley-Rice
Climate: Continental temperate
Conductivity: 0.0050
Dielectric Constant: 15.0
Refractivity: 311.0
Receiver Height AG: 9.1 m
Receiver Gain: 0 dB
Time Variability: 10.0%
Situation Variability: 50.0%
ITM Mode: Broadcast

Transmitter Information:

Call Letters: WLYF
File Number: BLH20090828ADS
Latitude: 25-58-00 N
Longitude: 080-12-42.80 W
ERP: 100.00 kW
Channel: 268
Frequency: 101.5 MHz
AMSL Height: 250.2 m
Elevation: 2.1 m
Horiz. Antenna Pattern: Omni
Vert. Elevation Pattern: No
Propagation Model: Longley-Rice
Climate: Continental temperate
Conductivity: 0.0050
Dielectric Constant: 15.0
Refractivity: 311.0
Receiver Height AG: 9.1 m
Receiver Gain: 0 dB
Time Variability: 50.0%
Situation Variability: 50.0%
ITM Mode: Broadcast

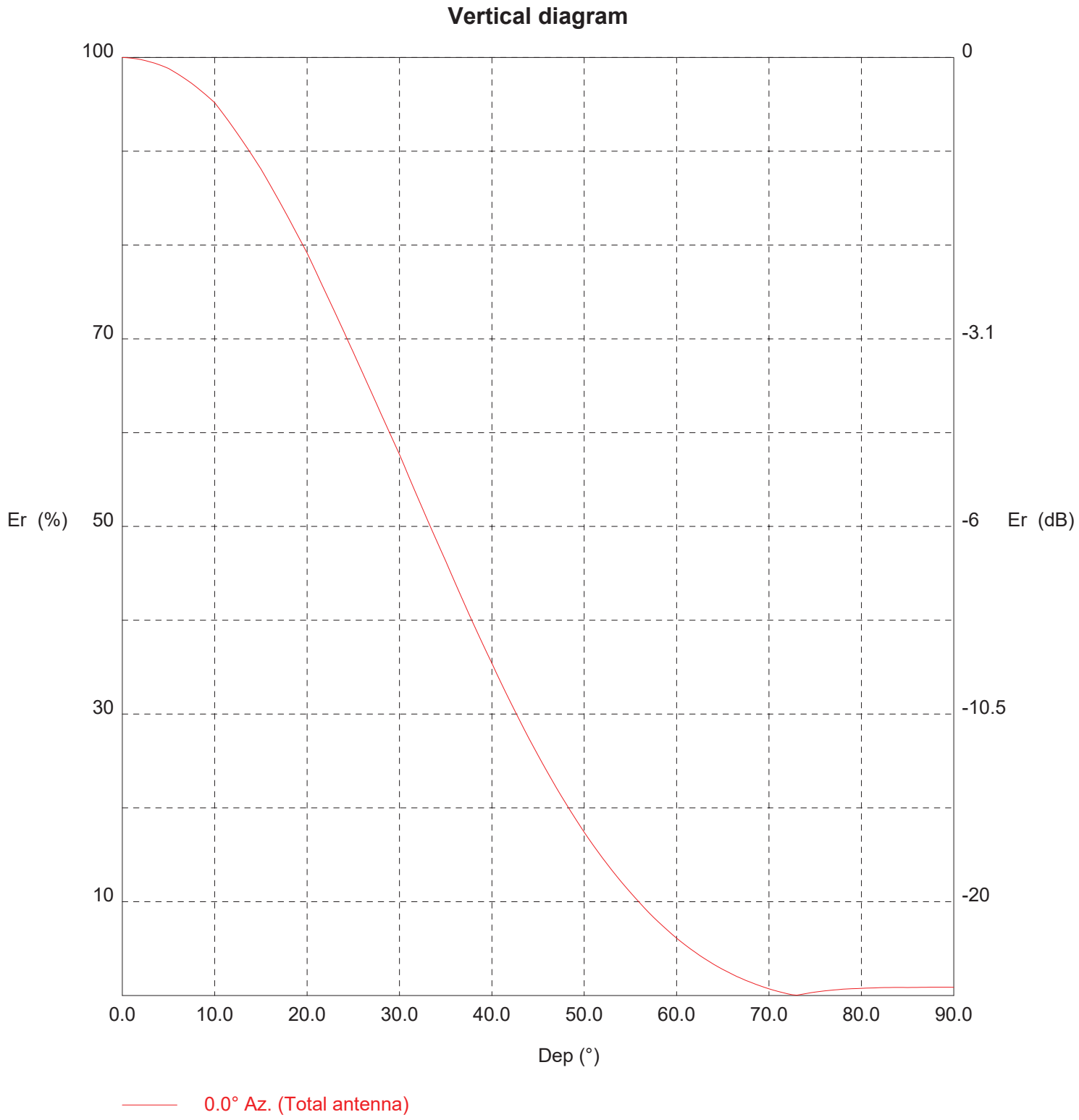
Nicom BKG-77 – Two bay – half-spaced array

depression angle below horizon	relative field	db from relative	ERP	angular distance to contour	vertical distance	horizontal distance	clearance above ground
0	1.000	0.00	45.00	26.444	0.000	26.44	43.00
5	0.988	-0.10	43.93	26.126	2.277	26.03	40.72
10	0.871	-1.20	34.14	23.033	4.000	22.68	39.00
15	0.881	-1.10	34.93	23.297	6.030	22.50	36.97
20	0.791	-2.04	28.16	20.917	7.154	19.66	35.85
25	0.686	-3.27	21.18	18.140	7.666	16.44	35.33
30	0.577	-4.78	14.98	15.258	7.629	13.21	35.37
35	0.463	-6.69	9.65	12.243	7.023	10.03	35.98
40	0.354	-9.02	5.64	9.361	6.017	7.17	36.98
45	0.256	-11.84	2.95	6.770	4.787	4.79	38.21
50	0.174	-15.19	1.36	4.601	3.525	2.96	39.48
55	0.104	-19.66	0.49	2.750	2.253	1.58	40.75
60	0.061	-24.29	0.17	1.613	1.397	0.81	41.60
65	0.028	-31.06	0.04	0.740	0.671	0.31	42.33
70	0.007	-43.10	0.00	0.185	0.174	0.06	42.83
75	0.004	-47.96	0.00	0.106	0.102	0.03	42.90
80	0.008	-41.94	0.00	0.212	0.208	0.04	42.79
85	0.008	-41.94	0.00	0.212	0.211	0.02	42.79
90	0.010	-40.09	0.00	0.262	0.262	0.00	42.74

TX station: BKG77/2 GENERIC

Site name: 1/2 WAVE SEPARATION

Frequency: 98.10 MHz



TX station: BKG77/2 GENERIC

Site name: 1/2 WAVE SEPARATION

Frequency: 98.10 MHz

Vertical diagram at an azimuth of 0° degrees

Dep (°)	Er (%)	ERP (W)	Dep (°)	Er (%)	ERP (W)	Dep (°)	Er (%)	ERP (W)
0.0	100.0	914.2	30.0	57.7	304.2	60.0	6.1	3.4
0.5	100.0	913.7	30.5	56.5	292.0	60.5	5.7	3.0
1.0	99.9	912.9	31.0	55.3	280.1	61.0	5.3	2.6
1.5	99.9	911.6	31.5	54.2	268.5	61.5	5.0	2.3
2.0	99.8	910.0	32.0	53.0	257.2	62.0	4.6	1.9
2.5	99.7	908.1	32.5	51.9	246.3	62.5	4.3	1.7
3.0	99.5	905.7	33.0	50.8	235.6	63.0	3.9	1.4
3.5	99.4	903.0	33.5	49.6	225.3	63.5	3.6	1.2
4.0	99.2	899.9	34.0	48.5	215.3	64.0	3.3	1.0
4.5	99.0	896.5	34.5	47.4	205.5	64.5	3.1	0.9
5.0	98.8	892.7	35.0	46.3	196.1	65.0	2.8	0.7
5.5	98.5	887.7	35.5	45.2	186.5	65.5	2.5	0.6
6.0	98.2	882.4	36.0	44.0	177.3	66.0	2.3	0.5
6.5	97.9	876.7	36.5	42.9	168.4	66.5	2.0	0.4
7.0	97.6	870.7	37.0	41.8	159.8	67.0	1.8	0.3
7.5	97.2	864.3	37.5	40.7	151.5	67.5	1.6	0.2
8.0	96.9	857.7	38.0	39.6	143.5	68.0	1.4	0.2
8.5	96.5	850.8	38.5	38.5	135.8	68.5	1.2	0.1
9.0	96.1	843.5	39.0	37.5	128.5	69.0	1.0	0.1
9.5	95.6	836.0	39.5	36.4	121.4	69.5	0.9	0.1
10.0	95.2	828.2	40.0	35.4	114.6	70.0	0.7	0.0
10.5	94.5	817.1	40.5	34.4	107.9	70.5	0.6	0.0
11.0	93.9	805.8	41.0	33.3	101.5	71.0	0.4	0.0
11.5	93.2	794.4	41.5	32.3	95.4	71.5	0.3	0.0
12.0	92.5	782.7	42.0	31.3	89.5	72.0	0.2	0.0
12.5	91.8	770.9	42.5	30.3	84.0	72.5	0.1	0.0
13.0	91.1	759.0	43.0	29.3	78.7	73.0	0.0	0.0
13.5	90.4	746.9	43.5	28.4	73.6	73.5	0.1	0.0
14.0	89.6	734.6	44.0	27.4	68.8	74.0	0.2	0.0
14.5	88.9	722.3	44.5	26.5	64.3	74.5	0.3	0.0
15.0	88.1	709.8	45.0	25.6	59.9	75.0	0.4	0.0
15.5	87.3	696.2	45.5	24.7	55.8	75.5	0.4	0.0
16.0	86.4	682.5	46.0	23.8	51.9	76.0	0.5	0.0
16.5	85.5	668.7	46.5	23.0	48.2	76.5	0.5	0.0
17.0	84.6	655.0	47.0	22.1	44.7	77.0	0.6	0.0
17.5	83.8	641.2	47.5	21.3	41.5	77.5	0.6	0.0
18.0	82.8	627.4	48.0	20.5	38.4	78.0	0.7	0.0
18.5	81.9	613.7	48.5	19.7	35.4	78.5	0.7	0.0
19.0	81.0	599.9	49.0	18.9	32.7	79.0	0.7	0.0
19.5	80.1	586.2	49.5	18.2	30.1	79.5	0.7	0.1
20.0	79.1	572.5	50.0	17.4	27.7	80.0	0.8	0.1
20.5	78.1	557.6	50.5	16.7	25.5	80.5	0.8	0.1
21.0	77.1	542.9	51.0	16.0	23.4	81.0	0.8	0.1
21.5	76.0	528.2	51.5	15.3	21.4	81.5	0.8	0.1
22.0	75.0	513.7	52.0	14.6	19.6	82.0	0.8	0.1
22.5	73.9	499.3	52.5	14.0	17.9	82.5	0.8	0.1
23.0	72.8	485.1	53.0	13.3	16.3	83.0	0.8	0.1
23.5	71.8	471.1	53.5	12.7	14.8	83.5	0.9	0.1
24.0	70.7	457.2	54.0	12.1	13.4	84.0	0.9	0.1
24.5	69.6	443.5	54.5	11.5	12.2	84.5	0.9	0.1
25.0	68.6	429.9	55.0	11.0	11.0	85.0	0.8	0.1
25.5	67.5	416.4	55.5	10.4	9.9	85.5	0.9	0.1
26.0	66.4	403.0	56.0	9.9	8.9	86.0	0.9	0.1
26.5	65.3	389.8	56.5	9.3	8.0	86.5	0.9	0.1
27.0	64.2	376.9	57.0	8.8	7.1	87.0	0.9	0.1
27.5	63.1	364.2	57.5	8.3	6.4	87.5	0.9	0.1
28.0	62.0	351.7	58.0	7.9	5.6	88.0	0.9	0.1
28.5	60.9	339.4	58.5	7.4	5.0	88.5	0.9	0.1
29.0	59.8	327.4	59.0	7.0	4.4	89.0	0.9	0.1
29.5	58.8	315.7	59.5	6.5	3.9	89.5	0.9	0.1