

OCTOBER 7, 2019

WRIZ-LP – Pompano Beach, FL - Facility ID# 195477

AMENDMENT

Second Adjacent Exhibit & Waiver Request

Minor modification requests second adjacent waiver. Exhibit is provided demonstrating no interference will be caused to any population.

The attached D/U Ratio Study dataset from V-Soft FM Probe 4 software calculates WHYI-FM with an estimated signal strength of 86.36 dBuV/m at the site, and WLYF at 84.33 dBuV/m. With an additional 40 dBu, WLYF is protected to 124.33 dBuV/m.

The full data export of engineering parameters are attached with this exhibit.

Height of radiation center will be 12.5 meters above ground level.

At 50 watts ERP, worst-case interference is calculated to 4.1 meters radius at 6.5 meters above ground.

Interference will remain cleared of occupied areas and four-laned roadways. No population will be subject to interference from the proposed station according to the undesired-to-desired ratio method.

Export of engineering parameters are attached.

Export of calculations from Engineering Study
V-Soft Probe 4 software

WLYF signal calculations at reference point:

Point Information Report

Latitude: 26-16-13.05 N

Longitude: 080-07-03.90 W

Signal Strength: 84.333 dBuV/m

Elevation: 0.0 m

Distance From Transmitter: 34.91 km

Azimuth From Transmitter: 16 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

Point Information Report

Latitude: 26-16-13.05 N

Longitude: 080-07-03.90 W

Signal Strength: 86.355 dBuV/m

Elevation: 0.0 m

Distance From Transmitter: 34.78 km

Azimuth From Transmitter: 15 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: 10/05/2019

Land Cover was not considered in this study.

Primary Terrain: V-Soft 30 Second US Database

Secondary Terrain: V-Soft 3 Second Alaska Terrain

Coordinate System: NAD27

Transmitters:

Transmitter Information:

Call Letters: WRIZ-LP

File Number: BLL20180423AAN

Latitude: 26-16-11.96 N

Longitude: 080-07-02.34 W

ERP: 0.05 kW

Channel: 266

Frequency: 101.1 MHz

AMSL Height: 18.4 m

Elevation: 6.0 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

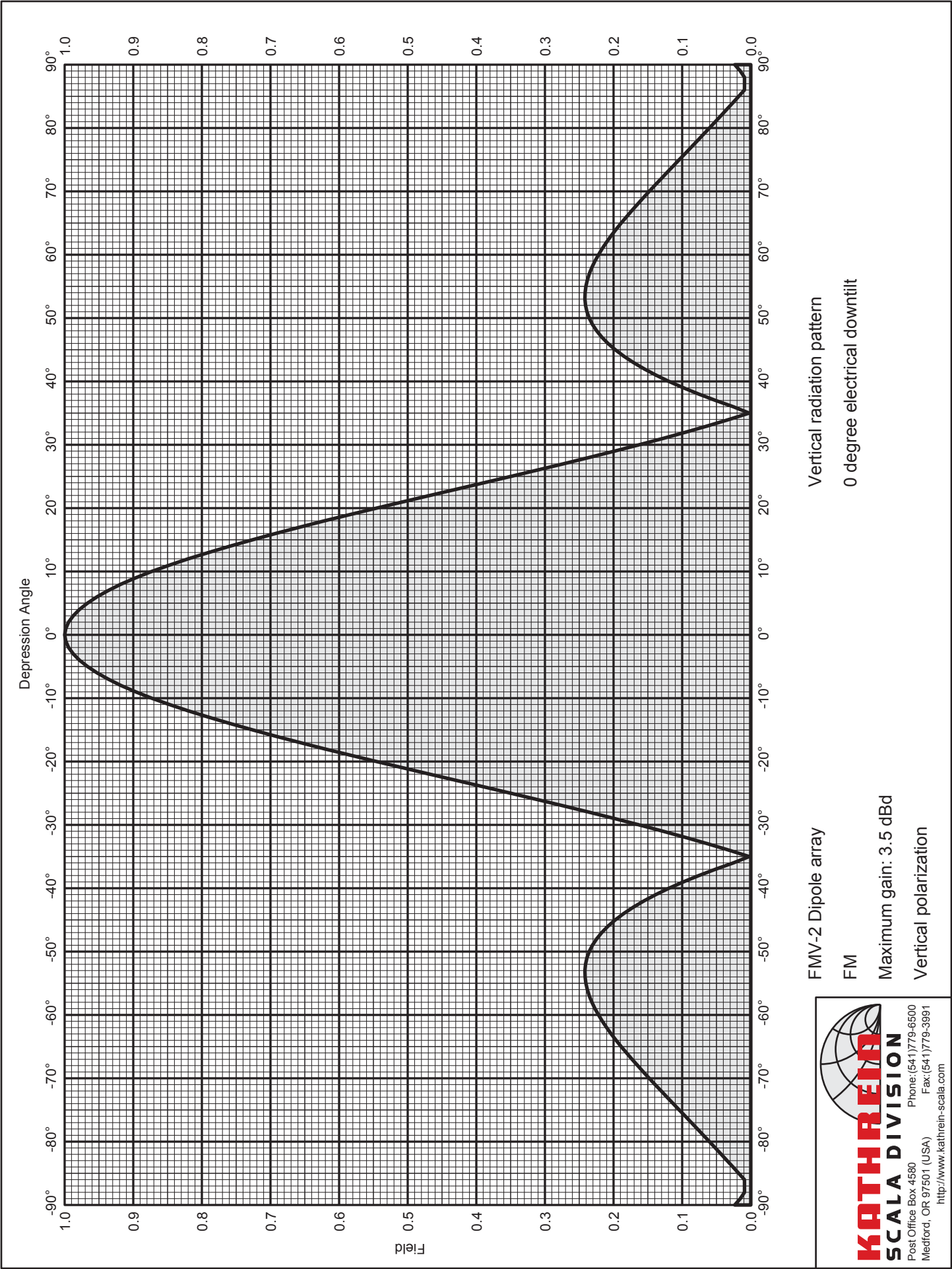
Channel: 264

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: 10.0%
Situation Variability: 50.0%
ITM Mode: Broadcast





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FMV-2 Dipole array

FM

Maximum gain: 3.5 dBd

Vertical polarization

Vertical radiation pattern

0 degree electrical downtilt

Angle	Field	Rel.dB	dBd	PwrMult	Angle	Field	Rel.dB	dBd	PwrMult
-90	0.023	-32.64	-29.14	0.00	-45	0.198	-14.09	-10.59	0.09
-89	0.015	-36.31	-32.81	0.00	-44	0.185	-14.64	-11.14	0.08
-88	0.010	-40.00	-36.50	0.00	-43	0.171	-15.32	-11.82	0.07
-87	0.010	-40.00	-36.50	0.00	-42	0.156	-16.15	-12.65	0.05
-86	0.010	-40.00	-36.50	0.00	-41	0.138	-17.18	-13.68	0.04
-85	0.018	-35.09	-31.59	0.00	-40	0.119	-18.47	-14.97	0.03
-84	0.026	-31.71	-28.21	0.00	-39	0.098	-20.14	-16.64	0.02
-83	0.035	-29.24	-25.74	0.00	-38	0.076	-22.41	-18.91	0.01
-82	0.043	-27.33	-23.83	0.00	-37	0.051	-25.78	-22.28	0.01
-81	0.052	-25.74	-22.24	0.01	-36	0.025	-31.91	-28.41	0.00
-80	0.060	-24.40	-20.90	0.01	-35	0.010	-40.00	-36.50	0.00
-79	0.069	-23.22	-19.72	0.01	-34	0.032	-30.02	-26.52	0.00
-78	0.078	-22.19	-18.69	0.01	-33	0.062	-24.11	-20.61	0.01
-77	0.087	-21.25	-17.75	0.02	-32	0.094	-20.49	-16.99	0.02
-76	0.095	-20.42	-16.92	0.02	-31	0.128	-17.86	-14.36	0.04
-75	0.104	-19.64	-16.14	0.02	-30	0.163	-15.77	-12.27	0.06
-74	0.113	-18.93	-15.43	0.03	-29	0.199	-14.04	-10.54	0.09
-73	0.122	-18.28	-14.78	0.03	-28	0.235	-12.56	-9.06	0.12
-72	0.131	-17.68	-14.18	0.04	-27	0.273	-11.28	-7.78	0.17
-71	0.139	-17.11	-13.61	0.04	-26	0.311	-10.14	-6.64	0.22
-70	0.148	-16.59	-13.09	0.05	-25	0.350	-9.12	-5.62	0.27
-69	0.157	-16.11	-12.61	0.05	-24	0.389	-8.20	-4.70	0.34
-68	0.165	-15.66	-12.16	0.06	-23	0.428	-7.36	-3.86	0.41
-67	0.173	-15.23	-11.73	0.07	-22	0.468	-6.60	-3.10	0.49
-66	0.181	-14.85	-11.35	0.07	-21	0.507	-5.91	-2.41	0.57
-65	0.189	-14.47	-10.97	0.08	-20	0.545	-5.26	-1.76	0.67
-64	0.196	-14.14	-10.64	0.09	-19	0.584	-4.68	-1.18	0.76
-63	0.204	-13.83	-10.33	0.09	-18	0.621	-4.14	-0.64	0.86
-62	0.210	-13.55	-10.05	0.10	-17	0.657	-3.65	-0.15	0.97
-61	0.216	-13.30	-9.80	0.10	-16	0.693	-3.19	0.31	1.07
-60	0.222	-13.08	-9.58	0.11	-15	0.726	-2.78	0.72	1.18
-59	0.227	-12.87	-9.37	0.12	-14	0.759	-2.40	1.10	1.29
-58	0.232	-12.71	-9.21	0.12	-13	0.790	-2.05	1.45	1.40
-57	0.235	-12.57	-9.07	0.12	-12	0.820	-1.73	1.77	1.50
-56	0.238	-12.46	-8.96	0.13	-11	0.847	-1.44	2.06	1.61
-55	0.240	-12.38	-8.88	0.13	-10	0.873	-1.18	2.32	1.71
-54	0.241	-12.34	-8.84	0.13	-9	0.896	-0.95	2.55	1.80
-53	0.242	-12.33	-8.83	0.13	-8	0.918	-0.74	2.76	1.89
-52	0.241	-12.37	-8.87	0.13	-7	0.936	-0.57	2.93	1.96
-51	0.239	-12.44	-8.94	0.13	-6	0.953	-0.42	3.08	2.03
-50	0.235	-12.56	-9.06	0.12	-5	0.967	-0.29	3.21	2.09
-49	0.231	-12.74	-9.24	0.12	-4	0.978	-0.19	3.31	2.14
-48	0.225	-12.97	-9.47	0.11	-3	0.988	-0.11	3.39	2.18
-47	0.217	-13.26	-9.76	0.11	-2	0.994	-0.05	3.45	2.21
-46	0.208	-13.63	-10.13	0.10	-1	0.998	-0.01	3.49	2.23
					0	1.000	0.00	3.50	2.24



FMV-2 Dipole array

FM

Maximum gain: 3.5 dBd

Vertical polarization

Vertical radiation pattern

0 degree electrical downtilt

Angle	Field	Rel.dB	dBd	PwrMult	Angle	Field	Rel.dB	dBd	PwrMult
0	1.000	0.00	3.50	2.24	45	0.198	-14.09	-10.59	0.09
1	0.998	-0.01	3.49	2.23	46	0.208	-13.63	-10.13	0.10
2	0.994	-0.05	3.45	2.21	47	0.217	-13.26	-9.76	0.11
3	0.988	-0.11	3.39	2.18	48	0.225	-12.97	-9.47	0.11
4	0.978	-0.19	3.31	2.14	49	0.231	-12.74	-9.24	0.12
5	0.967	-0.29	3.21	2.09	50	0.235	-12.56	-9.06	0.12
6	0.953	-0.42	3.08	2.03	51	0.239	-12.44	-8.94	0.13
7	0.936	-0.57	2.93	1.96	52	0.241	-12.37	-8.87	0.13
8	0.918	-0.74	2.76	1.89	53	0.242	-12.33	-8.83	0.13
9	0.896	-0.95	2.55	1.80	54	0.241	-12.34	-8.84	0.13
10	0.873	-1.18	2.32	1.71	55	0.240	-12.38	-8.88	0.13
11	0.847	-1.44	2.06	1.61	56	0.238	-12.46	-8.96	0.13
12	0.820	-1.73	1.77	1.50	57	0.235	-12.57	-9.07	0.12
13	0.790	-2.05	1.45	1.40	58	0.232	-12.71	-9.21	0.12
14	0.759	-2.40	1.10	1.29	59	0.227	-12.87	-9.37	0.12
15	0.726	-2.78	0.72	1.18	60	0.222	-13.08	-9.58	0.11
16	0.693	-3.19	0.31	1.07	61	0.216	-13.30	-9.80	0.10
17	0.657	-3.65	-0.15	0.97	62	0.210	-13.55	-10.05	0.10
18	0.621	-4.14	-0.64	0.86	63	0.204	-13.83	-10.33	0.09
19	0.584	-4.68	-1.18	0.76	64	0.196	-14.14	-10.64	0.09
20	0.545	-5.26	-1.76	0.67	65	0.189	-14.47	-10.97	0.08
21	0.507	-5.91	-2.41	0.57	66	0.181	-14.85	-11.35	0.07
22	0.468	-6.60	-3.10	0.49	67	0.173	-15.23	-11.73	0.07
23	0.428	-7.36	-3.86	0.41	68	0.165	-15.66	-12.16	0.06
24	0.389	-8.20	-4.70	0.34	69	0.157	-16.11	-12.61	0.05
25	0.350	-9.12	-5.62	0.27	70	0.148	-16.59	-13.09	0.05
26	0.311	-10.14	-6.64	0.22	71	0.139	-17.11	-13.61	0.04
27	0.273	-11.28	-7.78	0.17	72	0.131	-17.69	-14.19	0.04
28	0.235	-12.56	-9.06	0.12	73	0.122	-18.28	-14.78	0.03
29	0.199	-14.04	-10.54	0.09	74	0.113	-18.93	-15.43	0.03
30	0.163	-15.77	-12.27	0.06	75	0.104	-19.64	-16.14	0.02
31	0.128	-17.86	-14.36	0.04	76	0.095	-20.42	-16.92	0.02
32	0.095	-20.49	-16.99	0.02	77	0.087	-21.25	-17.75	0.02
33	0.062	-24.11	-20.61	0.01	78	0.078	-22.19	-18.69	0.01
34	0.032	-30.02	-26.52	0.00	79	0.069	-23.22	-19.72	0.01
35	0.010	-40.00	-36.50	0.00	80	0.060	-24.40	-20.90	0.01
36	0.025	-31.91	-28.41	0.00	81	0.052	-25.74	-22.24	0.01
37	0.051	-25.78	-22.28	0.01	82	0.043	-27.33	-23.83	0.00
38	0.076	-22.41	-18.91	0.01	83	0.035	-29.24	-25.74	0.00
39	0.098	-20.14	-16.64	0.02	84	0.026	-31.71	-28.21	0.00
40	0.119	-18.47	-14.97	0.03	85	0.018	-35.09	-31.59	0.00
41	0.138	-17.18	-13.68	0.04	86	0.010	-40.00	-36.50	0.00
42	0.156	-16.15	-12.65	0.05	87	0.010	-40.00	-36.50	0.00
43	0.171	-15.32	-11.82	0.07	88	0.010	-40.00	-36.50	0.00
44	0.185	-14.64	-11.14	0.08	89	0.015	-36.31	-32.81	0.00
					90	0.023	-32.64	-29.14	0.00

Depression Angle Calculations

Two-bay dipole antenna – Scala FMV2

ERP: 50 watts

AGL: 12.5 meters

Interfering contour: 124.33

depression angle below horizon	relative field	db from relative	ERP	angular distance to contour	vertical distance	horizontal distance	clearance above ground	height above ground
0	1.000	0.00	50.00	30.109	0.000	30.109	12.500	12.5
5	0.967	-0.29	46.75	29.116	2.538	29.005	9.962	12.5
10	0.873	-1.18	38.11	26.286	4.564	25.886	7.936	12.5
15	0.726	-2.78	26.35	21.859	5.658	21.115	6.842	12.5
20	0.545	-5.27	14.85	16.410	5.612	15.420	6.888	12.5
25	0.350	-9.12	6.13	10.538	4.454	9.551	8.046	12.5
30	0.163	-15.76	1.33	4.908	2.454	4.250	10.046	12.5
35	0.010	-40.00	0.01	0.301	0.173	0.247	12.327	12.5
40	0.119	-18.49	0.71	3.583	2.303	2.745	10.197	12.5
45	0.198	-14.07	1.96	5.962	4.216	4.216	8.284	12.5
50	0.235	-12.58	2.76	7.076	5.420	4.548	7.080	12.5
55	0.240	-12.40	2.88	7.226	5.919	4.145	6.581	12.5
60	0.222	-13.07	2.46	6.684	5.789	3.342	6.711	12.5
65	0.189	-14.47	1.79	5.691	5.158	2.405	7.342	12.5
70	0.148	-16.59	1.10	4.456	4.187	1.524	8.313	12.5
75	0.104	-19.66	0.54	3.131	3.025	0.810	9.475	12.5
80	0.060	-24.44	0.18	1.807	1.779	0.314	10.721	12.5
85	0.018	-34.89	0.02	0.542	0.540	0.047	11.960	12.5
90	0.023	-32.77	0.03	0.693	0.693	0.000	11.807	12.5

TOWAIR clearance – [UPDATED 10/07/2019](#)



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Antenna Structure Registration

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TOWAIR Determination Results

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A routine check of the coordinates, heights, and structure type you provided indicates that this structure does not require registration.

*** 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

PASS SLOPE(100:1)NO FAA REQ - 2435.0 Meters (7988.75 Feet)away & below slope by 7.0 Meters (22.9699 Feet)

Type	C/R	Latitude	Longitude	Name	Address	Lowest Elevation (m)	Runway Length (m)
AIRP	R	26-15-2.00N	080-06-25.00W	POMPANO BEACH AIRPARK	BROWARD POMPANO BEACH, FL	3.2	1499.0

PASS SLOPE(100:1)NO FAA REQ - 2718.0 Meters (8917.20 Feet)away & below slope by 10.0 Meters (32.8100 Feet)

Type	C/R	Latitude	Longitude	Name	Address	Lowest Elevation (m)	Runway Length (m)
AIRP	R	26-14-45.00N	080-07-0.00W	POMPANO BEACH AIRPARK	BROWARD POMPANO BEACH, FL	3.2	1499.0

PASS SLOPE(100:1)NO FAA REQ - 1777.0 Meters (5829.97 Feet)away & below slope by 0.0 Meters (0.0 Feet)

Type	C/R	Latitude	Longitude	Name	Address	Lowest Elevation (m)	Runway Length (m)
AIRP	R	26-15-16.00N	080-06-55.00W	POMPANO BEACH AIRPARK	BROWARD POMPANO BEACH, FL	3.2	1499.0

Your Specifications

NAD83 Coordinates

Latitude	26-16-13.3 north
Longitude	080-07-03.1 west

Measurements (Meters)

Overall Structure Height (AGL)	14.5
Support Structure Height (AGL)	0
Site Elevation (AMSL)	6

Structure Type

MAST - Mast