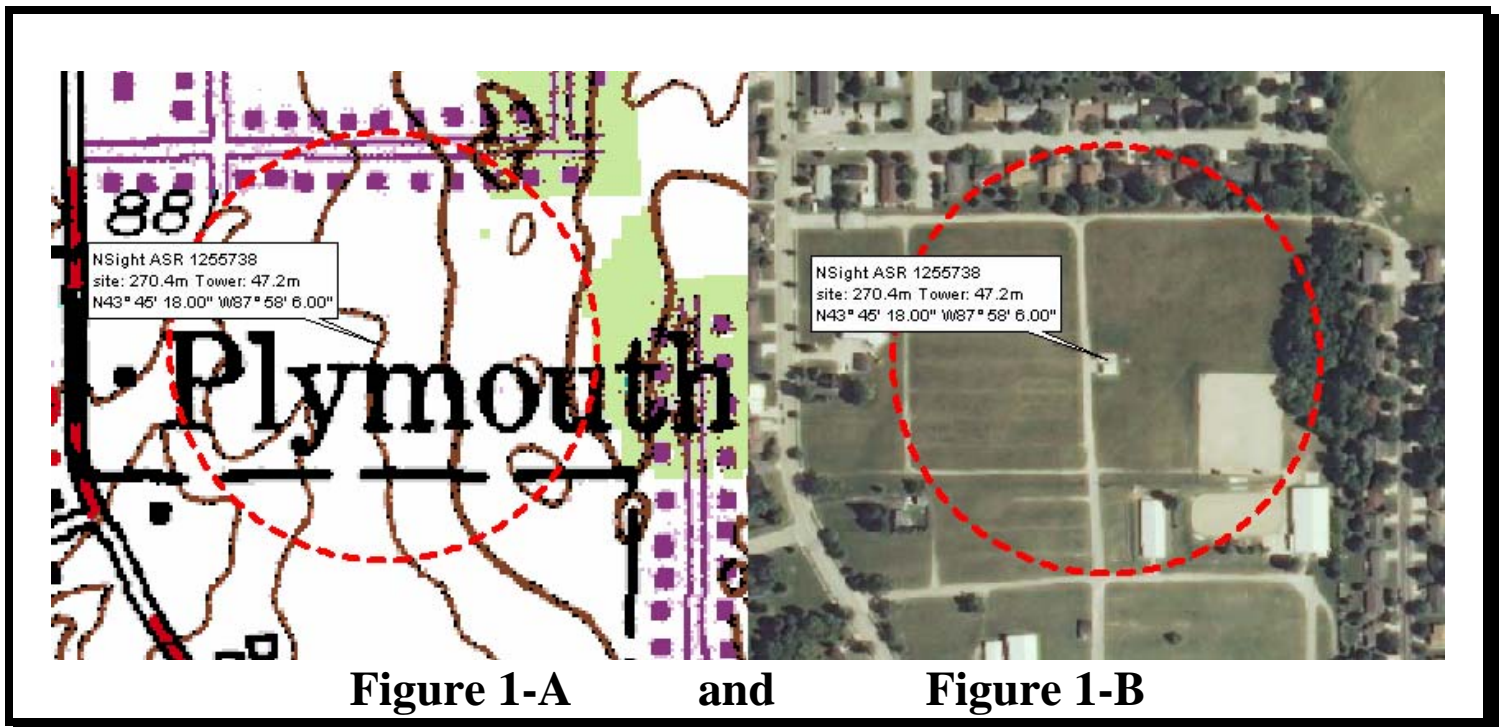


Waiver Request 47CFR74.1204

Protection to WAPL from Interference

The site for the proposed facility is located within the protected contour on a channel which is second-adjacent to WAPL, the Affected Station. We predict the Affected Station protected contour at the proposed site is 63.1 dBu F[50,50]. According to established third-adjacent channel contour Undesired-to-Desired (U/D) protection ratios, the contour from the interfering station should be 40 dB higher than the protected contour. Therefore the respective interfering contour for this proposed amendment is 103.1dBu F[50,10], which is 155.2 meters from the proposed radiation center. Displayed in **Figure 1** is the site marking that radius of the potential interference area, indicated by a red dashed circle.



Applicant proposes to use a BEXT antenna model TFC2K-4-75WS, which is a four-bay antenna with $\frac{3}{4}$ wavelength vertical bay spacing. A graphical representation of radiation in the vertical plane is displayed in **Figure 2**.

Field strength at various elevation angles were provided by the antenna manufacturer and displayed **Table 1** at the end of this exhibit. Columns with calculated field dB and the contour

distance in meters which were also calculated both in elevation radial form and for plotting in plane coordinates.

TFC2K-4-75WS

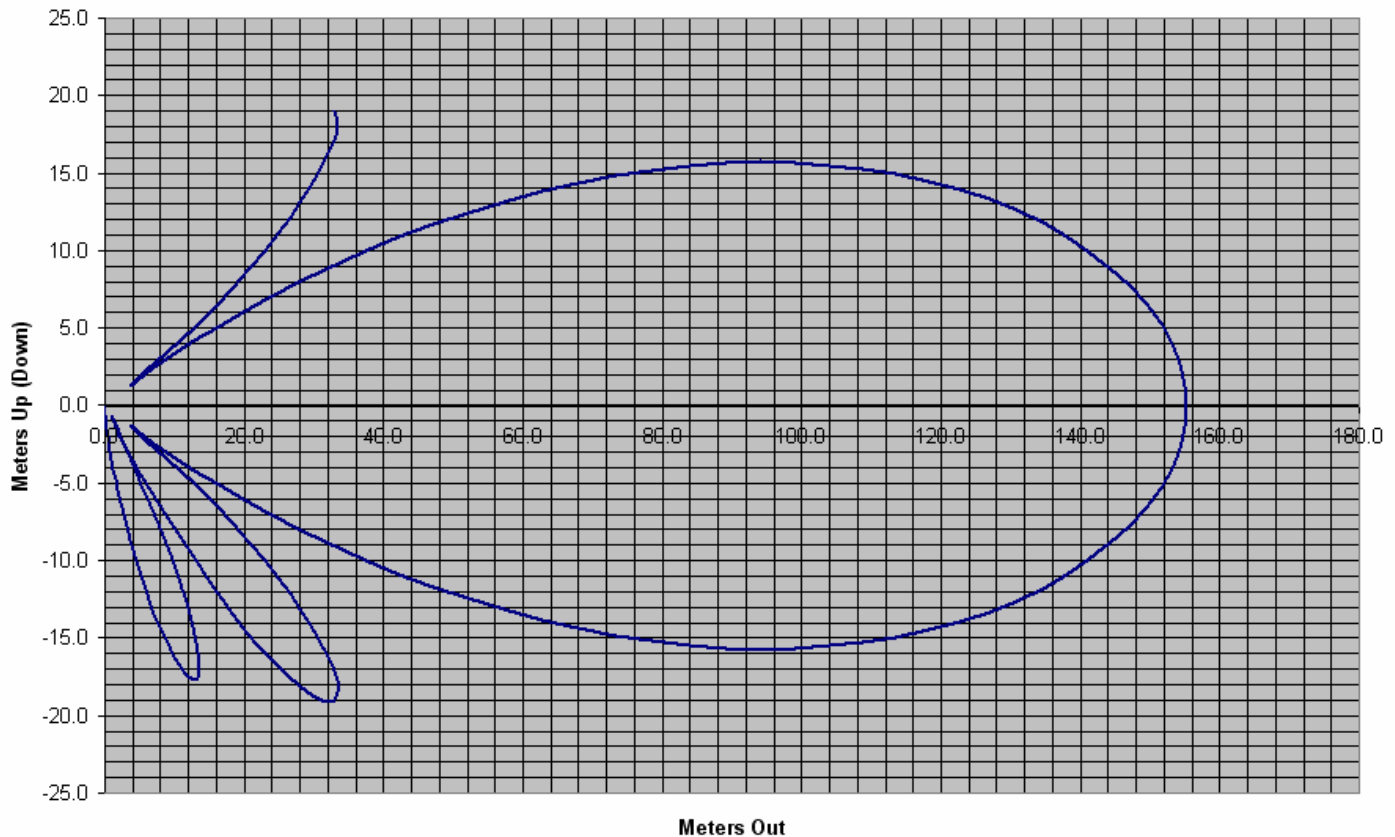


Figure 2

The lowest point of each lobe is highlighted in the table. **Table 1** shows the lowest point of radiation is on the 30 degree declination angle, centered on a 33 meter radius of the site. It can be seen from this data that the actual interference area does not exceed 19 meters below the 32 m AGL center of radiation. According to USGS maps, the highest terrain within the 155.2m radius is 7 meters higher than the tower reference elevation. Therefore, the radiation is actually hovering 9 meters ($32\text{m} - 19\text{m} - 7\text{m} = 6\text{m}$) AGL at the closest point.

The non-residential area within the radius appears to have been graded and is primarily used for the annual county fair. Therefore, the actual interference is believed to be even higher AGL than the topographic map implies. The actual interference area is 9 meters AGL in the residential area at the northern edge of the radius because of the terrain elevations there.

In the SE quadrant are two one-story structures used for county fair exhibits and office space. Two dirt exhibition fields that might otherwise be mistaken for tall buildings when only viewed in **Figure 1-B** are more clearly discerned in **Figure 3**.



Figure 3

Structures and the terrain limit public occupation to no more than seven meters AGL within the 155.2 meter radius. There is no residence, no business, no public structure nor location nor is there any public road within the actual area of interference to the Affected Station, which is actually hovering above locations where the public would be located. Therefore, the interference area is limited to an area where there are no public places.

Protection to WXER from Interference

The site for the proposed facility is located within the protected contour on a channel which is third-adjacent to WXER, the Affected Station. We predict the Affected Station protected contour at the proposed site is 86.2 dBu F[50,50]. According to established third-adjacent channel contour Undesired-to-Desired (U/D) protection ratios, the contour from the interfering station should be 40 dB higher than the protected contour. Therefore the respective interfering contour for this proposed amendment is 126.2dBu F[50,10].

The potential interference area is limited to 10.9 meters from COR. The COR is 32m AGL. There are no structures other than the supporting structure within the interference area. Therefore there are no areas where the public could be located within the interference area.

Request for Waiver

Since this proposal complies with 47CFR74.1204(d) based upon the fact that no actual interference will occur due to no population and no public locations within the areas of interference, we hereby request waiver of 47CFR74.1204(a)(3) for separation between this proposed facility and the Affected Stations.

Table I

TFC2K475.DAT

ELEV ANGLE	FIELD STRENGTH	FIELD DB	ELEV ERP(KW)	ELEV DBK	103.10DBU CNTR(M)	DISTANCE OUT(M)	DISTANCE UP(DOWN)	ELEVATION AMSL(M)
=====	=====	=====	=====	=====	=====	=====	=====	=====
-90	0.000	-73.50	0.0000	-93.50	0.0	0.0	0.0	302.4
-88	0.000	-75.60	0.0000	-95.60	0.0	0.0	0.0	302.4
-86	0.000	-77.40	0.0000	-97.40	0.0	0.0	0.0	302.4
-84	0.001	-59.70	0.0000	-79.70	0.2	0.0	-0.2	302.2
-82	0.003	-51.00	0.0000	-71.00	0.4	0.1	-0.4	302.0
-80	0.006	-44.80	0.0000	-64.80	0.9	0.2	-0.9	301.5
-78	0.010	-40.00	0.0000	-60.00	1.6	0.3	-1.5	300.9
-76	0.016	-36.10	0.0000	-56.10	2.4	0.6	-2.4	300.0
-74	0.023	-32.70	0.0000	-52.70	3.6	1.0	-3.5	298.9
-72	0.032	-29.90	0.0000	-49.90	5.0	1.5	-4.7	297.7
-70	0.043	-27.40	0.0000	-47.40	6.6	2.3	-6.2	296.2
-68	0.054	-25.30	0.0000	-45.30	8.4	3.2	-7.8	294.6
-66	0.068	-23.30	0.0000	-43.30	10.6	4.3	-9.7	292.7
-64	0.082	-21.70	0.0001	-41.70	12.8	5.6	-11.5	290.9
-62	0.098	-20.20	0.0001	-40.20	15.2	7.1	-13.4	289.0

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-60	0.112	-19.00	0.0001	-39.00	17.4	8.7	-15.1	287.3
-58	0.124	-18.10	0.0002	-38.10	19.3	10.2	-16.4	286.0
-56	0.135	-17.40	0.0002	-37.40	20.9	11.7	-17.4	285.0
-54	0.141	-17.00	0.0002	-37.00	21.9	12.9	-17.7	284.7
-52	0.141	-17.00	0.0002	-37.00	21.9	13.5	-17.3	285.1
-50	0.133	-17.50	0.0002	-37.50	20.7	13.3	-15.9	286.5
-48	0.116	-18.70	0.0001	-38.70	18.0	12.1	-13.4	289.0
-46	0.089	-21.00	0.0001	-41.00	13.8	9.6	-9.9	292.5
-44	0.052	-25.60	0.0000	-45.60	8.1	5.9	-5.7	296.7
-42	0.007	-43.20	0.0000	-63.20	1.1	0.8	-0.7	301.7
-40	0.045	-27.00	0.0000	-47.00	6.9	5.3	-4.5	297.9
-38	0.099	-20.10	0.0001	-40.10	15.3	12.1	-9.4	293.0
-36	0.151	-16.40	0.0002	-36.40	23.5	19.0	-13.8	288.6
-34	0.195	-14.20	0.0004	-34.20	30.3	25.1	-16.9	285.5
-32	0.229	-12.80	0.0005	-32.80	35.6	30.2	-18.8	283.6
-30	0.245	-12.20	0.0006	-32.20	38.1	33.0	-19.0	283.4
-28	0.243	-12.30	0.0006	-32.30	37.7	33.3	-17.7	284.7
-26	0.219	-13.20	0.0005	-33.20	34.0	30.5	-14.9	287.5
-24	0.176	-15.10	0.0003	-35.10	27.3	24.9	-11.1	291.3
-22	0.111	-19.10	0.0001	-39.10	17.2	16.0	-6.4	296.0
-20	0.027	-31.40	0.0000	-51.40	4.2	3.9	-1.4	301.0
-18	0.074	-22.60	0.0001	-42.60	11.5	10.9	-3.6	298.8
-16	0.188	-14.50	0.0004	-34.50	29.2	28.1	-8.1	294.3
-14	0.313	-10.10	0.0010	-30.10	48.5	47.1	-11.7	290.7
-12	0.447	-7.00	0.0020	-27.00	69.3	67.8	-14.4	288.0
-10	0.582	-4.70	0.0034	-24.70	90.3	89.0	-15.7	286.7
-8	0.708	-3.00	0.0050	-23.00	109.9	108.8	-15.3	287.1
-6	0.822	-1.70	0.0068	-21.70	127.6	126.9	-13.3	289.1
-4	0.912	-0.80	0.0083	-20.80	141.5	141.2	-9.9	292.5
-2	0.977	-0.20	0.0095	-20.20	151.7	151.6	-5.3	297.1
0	1.000	0.00	0.0100	-20.00	155.2	155.2	0.0	302.4
2	0.977	-0.20	0.0095	-20.20	151.7	151.6	5.3	307.7
4	0.912	-0.80	0.0083	-20.80	141.5	141.2	9.9	312.3
6	0.822	-1.70	0.0068	-21.70	127.6	126.9	13.3	315.7
8	0.708	-3.00	0.0050	-23.00	109.9	108.8	15.3	317.7
10	0.582	-4.70	0.0034	-24.70	90.3	89.0	15.7	318.1
12	0.447	-7.00	0.0020	-27.00	69.3	67.8	14.4	316.8
14	0.313	-10.10	0.0010	-30.10	48.5	47.1	11.7	314.1
16	0.188	-14.50	0.0004	-34.50	29.2	28.1	8.1	310.5
18	0.074	-22.60	0.0001	-42.60	11.5	10.9	3.6	306.0
20	0.027	-31.40	0.0000	-51.40	4.2	3.9	1.4	303.8
22	0.111	-19.10	0.0001	-39.10	17.2	16.0	6.4	308.8
24	0.176	-15.10	0.0003	-35.10	27.3	24.9	11.1	313.5
26	0.219	-13.20	0.0005	-33.20	34.0	30.5	14.9	317.3
28	0.243	-12.30	0.0006	-32.30	37.7	33.3	17.7	320.1
30	0.245	-12.20	0.0006	-32.20	38.1	33.0	19.0	321.4

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MAX: 155.2m -19.0m 283.4m

End of Table I