

**MINOR LICENSE MODIFICATION APPLICATION
W300CZ, Ewansville, NJ**

TECHNICAL STATEMENT

This technical statement and attached exhibits have been prepared on behalf of Best Media, Inc (“Best”), Licensee of translator station W300CZ, Facility ID number 141281. The applicant proposes a minor modification to the W300CZ license to change frequency and relocate to an existing tower. It was discovered, when the staff prepared for the construction of the current facility, that channel 300 receives significant interference from another translator. A search was conducted and it was found that a move to channel 292 might provide a better frequency for Best to serve its desired population. This translator will continue to rebroadcast WPRB (FM), Princeton, NJ Facility ID 53567, as a fill-in translator in compliance with 47 CFR 74.1201. The translator community of license will change to Perth Amboy.

Facilities Proposed

Location (NAD83)	40° 30' 35.3" N Latitude, 74° 17' 16.7" W Longitude
Channel	292D (106.3MHz)
Tower Overall AGL Height-	93m
Tower ASR	1061413
Proposed Antenna	6-level custom log-Periodic Antenna @ 30deg T Single level Log-periodic @ 230 deg T
Antenna AGL Height-	90.5m
Site AMSL Height-	3.4m
COR AMSL Height	93.9m
ERP	240w DIRECTIONAL (SEE EXHIBIT A)

Interference Study

ComStudy 2.2 search of channel 292 (106.3 MHz Class D) at 40-30-35.3 N, 74-17-16.7 W.

CALL	CITY	ST CHN CL	DIST	SEP	BRNG	CLEARANCE
WLTW	NEW YORK	NY 294 B	36.83	0.00	43.8	-14.85 dB Exhibit C
WQXR-FM	NEWARK	NJ 290 B1	36.83	0.00	43.8	-1.79 dB Exhibit C
WKMK	EATONTOWN	NJ 292 A	31.18	0.00	145.6	0.82 dB Exhibit B
WUMR	PHILADELPHIA	PA 291 B	89.53	0.00	238.2	2.98 dB Exhibit B
W292FV	NEW YORK	NY 292 D	63.53	0.00	42.8	7.37 dB
WYMK	MOUNT KISCO	NY 292 A	91.03	0.00	34.1	9.81 dB
WUMR	PHILADELPHIA	PA 291 B	96.24	0.00	237.7	9.21 dB
WKVP	CAMDEN	NJ 295 B	96.03	0.00	226.2	12.30 dB
WHCY	BLAIRSTOWN	NJ 292 A	83.12	0.00	316.3	17.99 dB
WBLI	PATCHOGUE	NY 291 B	111.80	0.00	70.2	18.95 dB
WHCY	BLAIRSTOWN,	NJ 292 A	83.12	0.00	316.3	20.34 dB
W292DX	MIDDLETOWN	NY 292 D	105.48	0.00	354.1	21.00 dB
WPLJ	NEW YORK	NY 238 B	36.83	15.00	43.8	21.8
WCHR-FM	MANAHAWKIN	NJ 289 B1	71.21	0.00	171.6	21.19 dB
W289CR	GLEN GARDNER	NJ 289 D	57.55	0.00	290.9	23.03 dB
W292CM	POUGHKEEPSIE	NY 292 D	136.71	0.00	10.3	24.99 dB
W292FI	WATERBURY	CT 292 D	154.70	0.00	43.1	26.00 dB
W292ES	DOVER PLAINS	NY 292 D	147.94	0.00	25.0	25.30 dB
WKVP	CAMDEN	NJ 295 B	96.17	0.00	237.3	25.43 dB
WHII-LP	WARMINSTER	PA 293 LP100	75.00	13.00	239.8	27.75 dB
W292FI	WATERBURY	CT 292 D	156.54	0.00	40.9	27.02 dB
WTHJ	BASS RIVER TOWNSHIP	NJ 293 A	97.68	0.00	183.3	29.02 dB

LMS as of 12/16/2023

COMPLIANCE, 74.1201(g), 74.1204(a), 74.1233(a)(1), and 74.1204(d)

Exhibit B demonstrates compliance with 74.1204(a). There are no impermissible contour overlaps to any other facilities.

Exhibit D demonstrates compliance with 74.1201(g) governing the use of a translator as a fill-in for an FM station. The 54dBu contour of the proposed W300CZ will be completely contained within the 54dBu contour of WPRB (FM).

Exhibit C demonstrates that the proposed facility will protect stations WQXR (290B1) and WLTW (294B) signals. Because of the area surrounding the tower site, the dual lobe antenna will be separated into two sections. The North section will utilize a 6-level log-periodic antenna to maintain the interfering contour above ground level for WQXR and WLTW. As demonstrated in Exhibits C2, C3, and C4, the south-oriented interfering contour extends approximately 1100 meters for protection to WQXR and WLTW it extends about 300 meters. As shown in the map C3, over the southern lobe there is river and mud flats so in those areas the second-adjacent interference does not affect any population. The proposed facility will thus be compliant with 74.1204(d).

Exhibit E demonstrates that the proposed W300CZ 60dBu contour will overlap a portion of the licensed facility and is thus compliant with 74.1233(a).

Environmental Exhibit

The proposed W300CZ facility as proposed will utilize a directional antenna located on an existing ASR-registered tower, (ASR 1061413). The RF density near the tower was calculated using a worst-case EPA type 1 antenna at 240 watts horizontal and vertical and

90.5m above the ground. Using the FCC program “FM Model¹”, it was calculated that the proposed antenna contributes approximately 0.013μW/cm² or 0.007 % of the total allowable 200 μW/cm² maximum over the north lobe directions. The south lobe maximum MPE is 0.8 μW/cm² or 0.4% of the maximum public exposure level.

The proposed facility will be operating at 90.5m on an existing tower. There are no non-excluded facilities collocated on the proposed tower. Based on the preceding, it is believed that the proposed facility is compliant under §1.1307(b)(3) and is excluded from further environmental review under §1.1306 of the FCC rules and regulations.

Respectfully Submitted

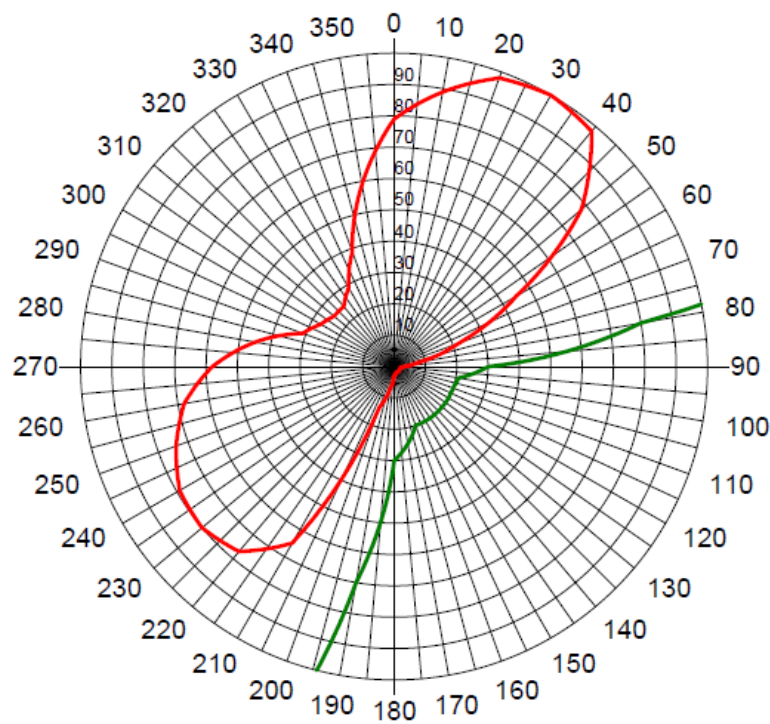


Bert Goldman
Goldman Engineering Mgmt.
560 Perkins Way
Auburn, CA 95603
(214) 395-5067
bert@bgoldman.net

¹ <https://www.fcc.gov/general/fm-model>

EXHIBIT A: Custom 10-Level, 0.5spc Log-Periodic Antenna

W300CZ PROP pattern



Azi	Rel	dBk	kW	dB	Azi	Rel	dBk	kW	dB
0	0.790	-8.25	0.150	-2.05	180	0.030	-36.66	0.000	-30.46
10	0.890	-7.21	0.190	-1.01	190	0.070	-29.30	0.001	-23.10
20	0.980	-6.37	0.230	-0.18	200	0.140	-23.28	0.005	-17.08
30	1.000	-6.20	0.240	0.00	210	0.650	-9.94	0.101	-3.74
40	0.980	-6.37	0.230	-0.18	220	0.770	-8.47	0.142	-2.27
50	0.780	-8.36	0.146	-2.16	230	0.800	-8.14	0.154	-1.94
60	0.450	-13.13	0.049	-6.94	240	0.790	-8.25	0.150	-2.05
70	0.220	-19.35	0.012	-13.15	250	0.740	-8.81	0.131	-2.62
80	0.080	-28.14	0.002	-21.94	260	0.680	-9.55	0.111	-3.35
90	0.030	-36.66	0.000	-30.46	270	0.580	-10.93	0.081	-4.73
100	0.021	-39.82	0.000	-33.62	280	0.450	-13.13	0.049	-6.94
110	0.020	-40.18	0.000	-33.98	290	0.310	-16.37	0.023	-10.17
120	0.020	-40.18	0.000	-33.98	300	0.270	-17.57	0.017	-11.37
130	0.020	-40.18	0.000	-33.98	310	0.250	-18.24	0.015	-12.04
140	0.020	-40.18	0.000	-33.98	320	0.250	-18.24	0.015	-12.04
150	0.020	-40.18	0.000	-33.98	330	0.290	-16.95	0.020	-10.75
160	0.020	-40.18	0.000	-33.98	340	0.390	-14.38	0.037	-8.18
170	0.025	-38.24	0.000	-32.04	350	0.590	-10.78	0.084	-4.58

Rotation Angle = 0

EXHIBIT B- 74.1204(a) Compliance

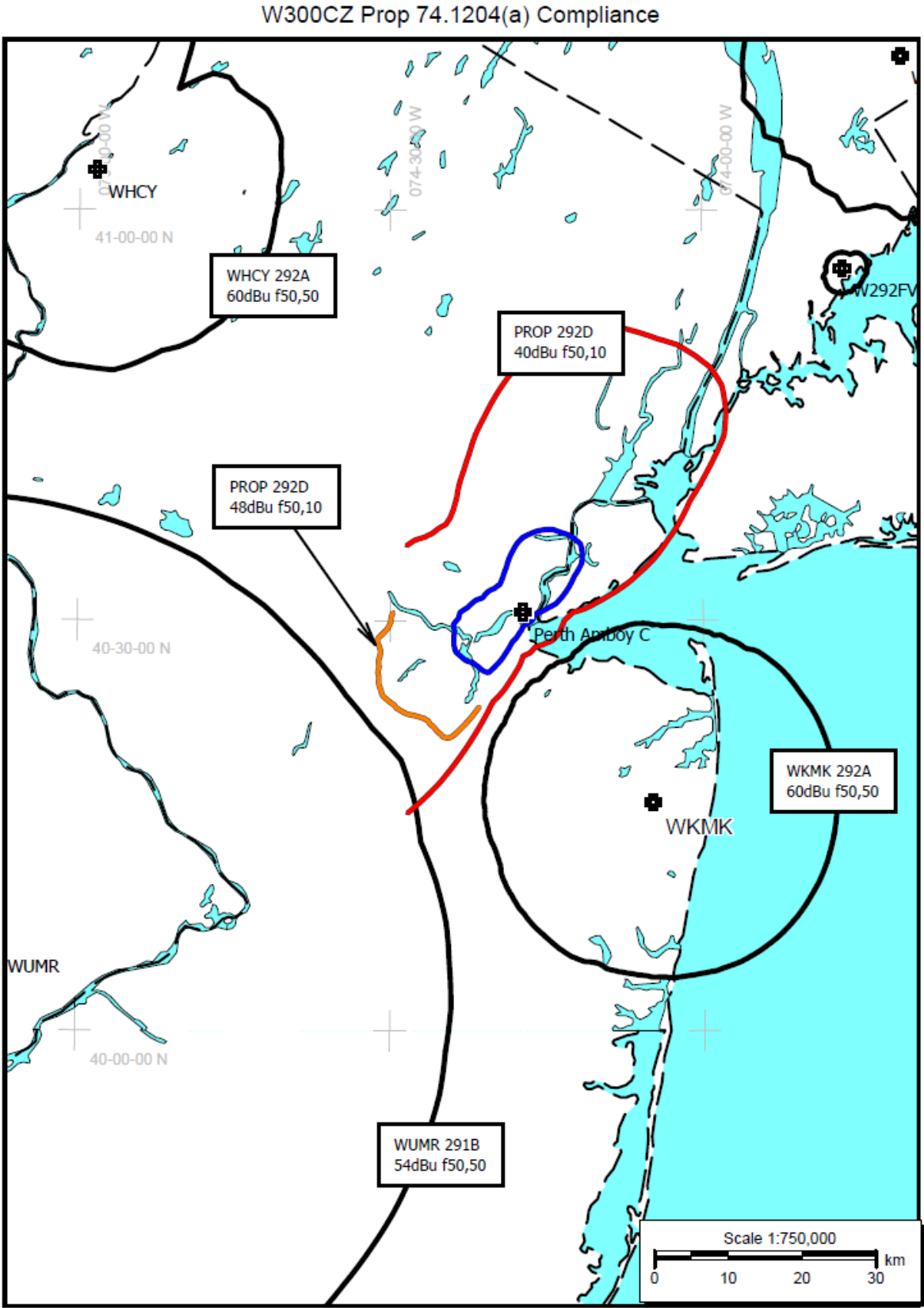


EXHIBIT C1- 74.1204(d) Compliance to WQXR (320deg T to 70deg T)

W300CZ-292 Perth Amboy, NJ, Showing Protection to WQXR-FM, Channel: 290

Geographic Coordinates: N. 403035.3 W. 741716.7

74.1204(d) Study - Using NED 03 SEC Terrain Database

Translator or LPFM Maximum Licensed ERP = 0.24 kW, Channel: 292

Translator or LPFM Antenna Height AG = 90.5 meters

W300CZ-292 Antenna Azimuth Model = Vertical Model Name = 6-BAY NICOM

Protected Station's Contour = 58.07894 dBu

Translator's or LPFM's full Interference contour 98.07894

Review Azimuth = 0 Degrees True

Horizontal Relative Field at Review Azimuth = 1.000

Translator/LPFM ERP on the horizontal at Review Azimuth = 0.24 kW

Distance between stations = 36.8 km

Protected Station= WQXR-FM, .61 kW, 430 M meters COR AMSL

Depression Angle From Degree (Deg)	Vertical Relative Field	Horizontal Relative Field	ERP (kw)	Dist to IX Contour Along Dep. Angle (m)	Dist to IX Contour From Tower Base (m)	Height IX Above Ground (m)
00.00	1.0	1.0	0.2400	1355.6845	1355.6845	090.500
05.00	0.679	1.0	0.1106	920.5098	917.0070	010.272
10.00	0.068	1.0	0.0011	092.1865	090.7860	074.492
15.00	0.229	1.0	0.0126	310.4517	299.8734	010.149
20.00	0.088	1.0	0.0019	119.3002	112.1055	049.697
25.00	0.124	1.0	0.0037	168.1049	152.3548	019.456
26.00	0.142	1.0	0.0048	192.5072	173.0243	006.110
27.00	0.15	1.0	0.0054	203.3527	181.1886	-001.820
28.00	0.148	1.0	0.0053	200.6413	177.1558	-003.695
29.00	0.143	1.0	0.0049	193.8629	169.5563	-003.487
30.00	0.116	1.0	0.0032	157.2594	136.1906	011.870
35.00	0.04	1.0	0.0004	054.2274	044.4205	059.396
40.00	0.114	1.0	0.0031	154.5480	118.3907	-008.842
45.00	0.064	1.0	0.0010	086.7638	061.3513	029.149
50.00	0.048	1.0	0.0006	065.0729	041.8280	040.651
55.00	0.105	1.0	0.0026	142.3469	081.6468	-026.104
60.00	0.092	1.0	0.0020	124.7230	062.3615	-017.513
65.00	0.034	1.0	0.0003	046.0933	019.4799	048.725
70.00	0.022	1.0	0.0001	029.8251	010.2008	062.474
75.00	0.055	1.0	0.0007	074.5626	019.2982	018.478
80.00	0.063	1.0	0.0010	085.4081	014.8310	006.389
85.00	0.062	1.0	0.0009	084.0524	007.3257	006.767
90.00	0.01	1.0	0.0000	013.5568	000.0000	076.943

EXHIBIT C2- 74.1204(d)- Calculation of distance to Interfering Contour, WQXR 90 to 270deg T

W300CZ-292 Perth Amboy, NJ, Showing Protection to WQXR-FM , Channel: 290
 Geographic Coordinates: N. 403035.3 W. 741716.7
 74.1204(d) Study - Using NED 03 SEC Terrain Database
 Translator or LPFM Maximum Licensed ERP = 0.14 kW, Channel: 292
 Translator or LPFM Antenna Height AG = 90.5 meters
 W300CZ-292 Antenna Azimuth Model = Vertical Model Name = CL-FM_0098-MHZ_VPOL_000DT

Protected Station's Contour = 58.07686 dBu
 Translator's or LPFM's full Interference contour 98.07686

Review Azimuth = 0 Degrees True
 Horizontal Relative Field at Review Azimuth = 1.000
 Translator/LPFM ERP on the horizontal at Review Azimuth = 0.14 kW
 Distance between stations = 36.8 km
 Protected Station= WQXR-FM, .61 kW, 430 M meters COR AMSL

Depression Angle From Degree (Deg)	Vertical Relative Field	Horizontal Relative Field	ERP (kw)	Dist to IX Contour Along Dep. Angle (m)	Dist to IX Contour From Tower Base (m)	Height IX Above Ground (m)
00.00	1.0	1.0	0.1400	1035.6691	1035.6691	090.500
01.00	0.996	1.0	0.1389	1031.5264	1031.3693	072.497
02.00	0.992	1.0	0.1378	1027.3837	1026.7579	054.645
03.00	0.988	1.0	0.1367	1023.2410	1021.8387	036.948
04.00	0.984	1.0	0.1356	1019.0984	1016.6159	019.411
05.00	0.98	1.0	0.1345	1014.9557	1011.0935	002.041
06.00	0.974	1.0	0.1328	1008.7417	1003.2157	-014.942
07.00	0.968	1.0	0.1312	1002.5277	995.0550	-031.677
08.00	0.962	1.0	0.1296	996.3137	986.6176	-048.160
09.00	0.956	1.0	0.1280	990.0996	977.9099	-064.386
10.00	0.95	1.0	0.1263	983.8856	968.9382	-080.350

EXHIBIT C3- 74.1204(d)- Map of protections to WQXR (South lobe)

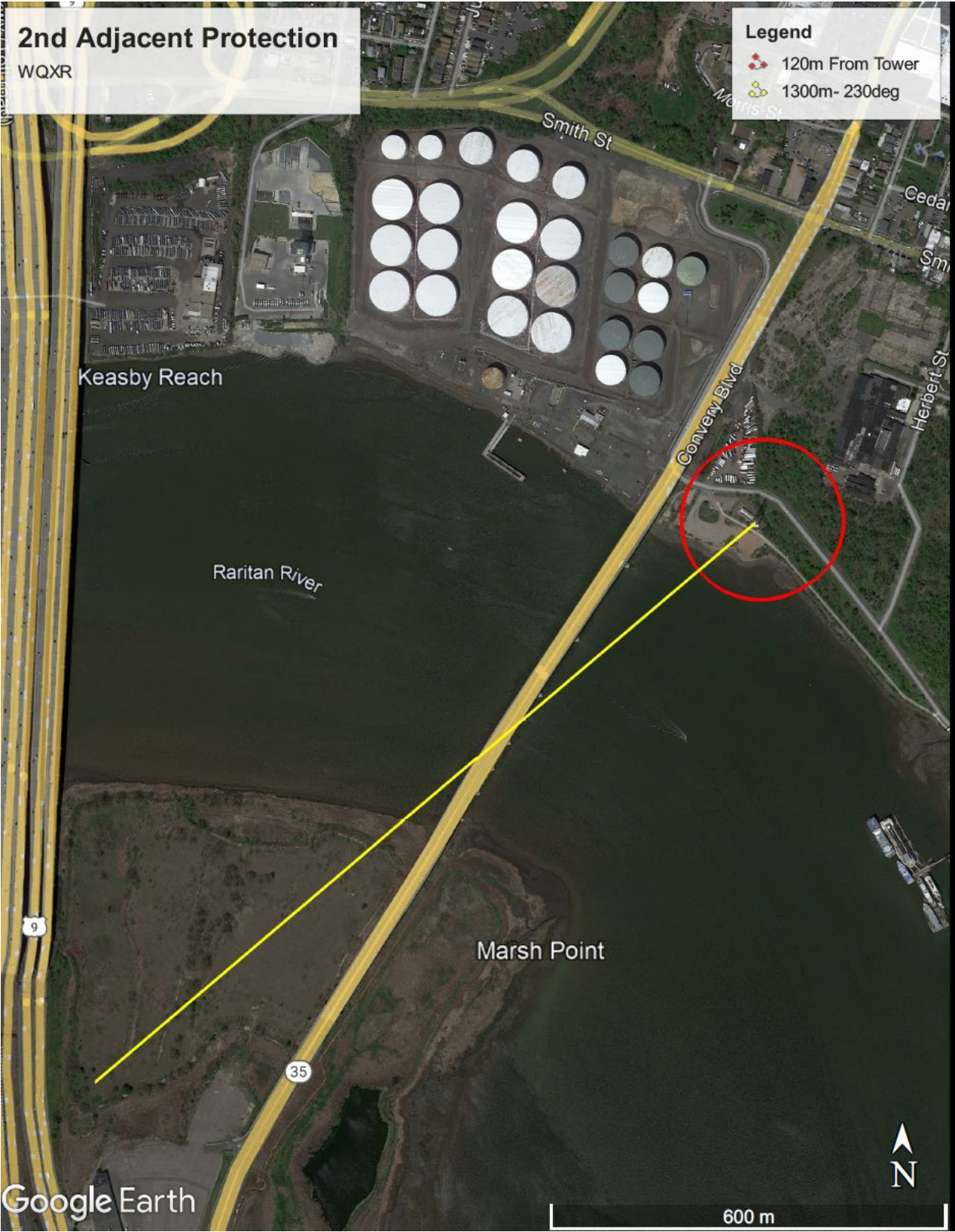


EXHIBIT C4- 74.1204D Compliance to WLTW

W300CZ-292 Perth Amboy, NJ, Showing Protection to WLTW, Channel: 294

Geographic Coordinates: N. 403035.3 W. 741716.7

74.1204(d) Study - Using NED 03 SEC Terrain Database

Translator or LPFM Maximum Licensed ERP = 0.24 kW, Channel: 292

Translator or LPFM Antenna Height AG = 90.5 meters

W300CZ-292 Antenna Azimuth Model = Vertical Model Name = 6-BAY 0.5wl NICOM

Protected Station's Contour = 67.9839 dBu

Translator's or LPFM's full Interference contour 107.9839

Review Azimuth = 0 Degrees True

Horizontal Relative Field at Review Azimuth = 1.000

Translator/LPFM ERP on the horizontal at Review Azimuth = 0.24 kW

Distance between stations = 36.8 km

Protected Station= WLTW, 6 kW, 429 M meters COR AMSL

Depression Angle From Degree (Deg)	Vertical Relative Field	Horizontal Relative Field	ERP (kw)	Dist to IX Contour Along Dep. Angle (m)	Dist to IX Contour From Tower Base (m)	Height IX Above Ground (m)
00.00	1.0	1.0	0.2400	433.4217	433.4217	090.500
05.00	0.679	1.0	0.1106	294.2933	293.1734	064.851
10.00	0.068	1.0	0.0011	029.4727	029.0249	085.382
15.00	0.229	1.0	0.0126	099.2536	095.8716	064.811
20.00	0.088	1.0	0.0019	038.1411	035.8409	077.455
25.00	0.124	1.0	0.0037	053.7443	048.7089	067.787
30.00	0.116	1.0	0.0032	050.2769	043.5411	065.362
35.00	0.04	1.0	0.0004	017.3369	014.2015	080.556
40.00	0.114	1.0	0.0031	049.4101	037.8503	058.740
45.00	0.064	1.0	0.0010	027.7390	019.6144	070.886
50.00	0.048	1.0	0.0006	020.8042	013.3727	074.563
55.00	0.105	1.0	0.0026	045.5093	026.1030	053.221
60.00	0.092	1.0	0.0020	039.8748	019.9374	055.967
65.00	0.034	1.0	0.0003	014.7363	006.2278	077.144
70.00	0.022	1.0	0.0001	009.5353	003.2613	081.540
75.00	0.055	1.0	0.0007	023.8382	006.1698	067.474
80.00	0.063	1.0	0.0010	027.3056	004.7416	063.609
85.00	0.062	1.0	0.0009	026.8721	002.3421	063.730
90.00	0.01	1.0	0.0000	004.3342	000.0000	086.166

EXHIBIT D- 74.1201(g) Fill-In Compliance

W300CZ Prop 74.1201(g) Compliance

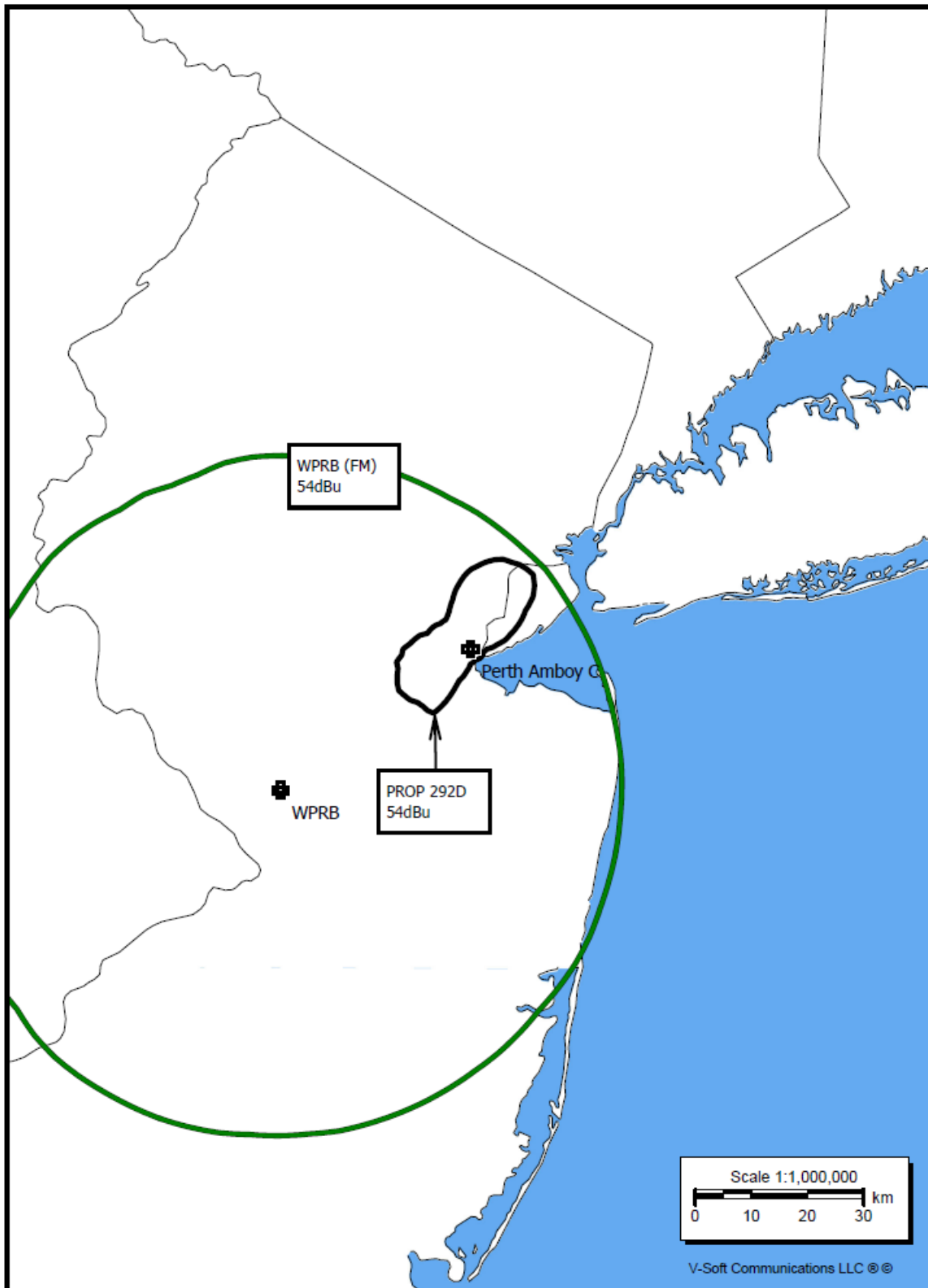


EXHIBIT E- 74.1233(a) Compliance

W300CZ Prop 74.1233(a) Compliance

