SECTION 74.1204(d) STUDY

This narrative exhibit demonstrates that the predicted interference to the 60 dBu contour of the second-adjacent WWRR, Scranton, PA and the 60 dBu contour of the third-adjacent W280CV, Scranton, PA is allowable under the rules stated in 47 CFR 74.1204(d).

In support thereof this Applicant states the following:

1. WWRR, Scranton, PA and W280CV, Scranton, PA, second and third adjacent channel facilities to this translator proposal, are protected from interference within their 60 dBu contours from the associated interference contour (based on 47 CFR 74.1204(a)(1); using the FCC F(50/10) curves) which need be 40 dBu greater than the associated coverage contours (WWRR and W280CV) that would encompass the proposed translator antenna site and that contour which is 40 dBu greater than the associated coverage contour.

2. This translator's antenna location is located within the 60 dBu contours (based on 73.333 F(50/50)) of WWRR, Scranton, PA and W280CV, Scranton, PA. This proposal will use the predicted desired to undesired coverage method to determine the appropriate interference contour that need be used with regard to WWRR and W280CV. Included as Figure 1 of this exhibit is a map showing that the 94.4 dBu coverage contour of WWRR and W280CV encompasses the proposed antenna site along with the entire proposed 134.4 dBu interference contour. As the proposed 134.4 dBu interference contour is 40 dBu greater than the 94.4 dBu contour of WWRR and W280CV then this contour is the appropriate interference contours for this analysis and it is clearly evident that interference will only occur within this interference contour for this proposed translator.

3. Given this translator's requested effective radiated power of 194 watts, Directional; the predicted 134.4 dBu interference contour for this proposal would be small. At any HAAT value, the 134.4 dBu contour distance for this proposal is 18.6 meters at 204 degrees from true north and smaller than this in all other directions.

4. This proposed translator is situated in a sparsely populated hilltop tower farm area 55 meters above ground on a radio communications tower. The area of potential interference is within 18.6 meters at most from the antenna, and less because of the directional pattern of the proposed antenna. Based on the proposed antenna pattern, the entire area of interference is located on the radio tower and never reaches the ground. A Vertical Radiation study has been provided as an attachment. The rule in 47 CFR 74.1204(d) states "an application otherwise precluded by this section will be accepted if it can be demonstrated that no actual interference will occur due to intervening terrain, lack of population or such factors as may be applicable." In this particular case, as shown in this exhibit, it is clearly evident that there is a "lack of population" as defined in 47 CFR 1204(d) thus allowing this translator to operate at this proposed location.

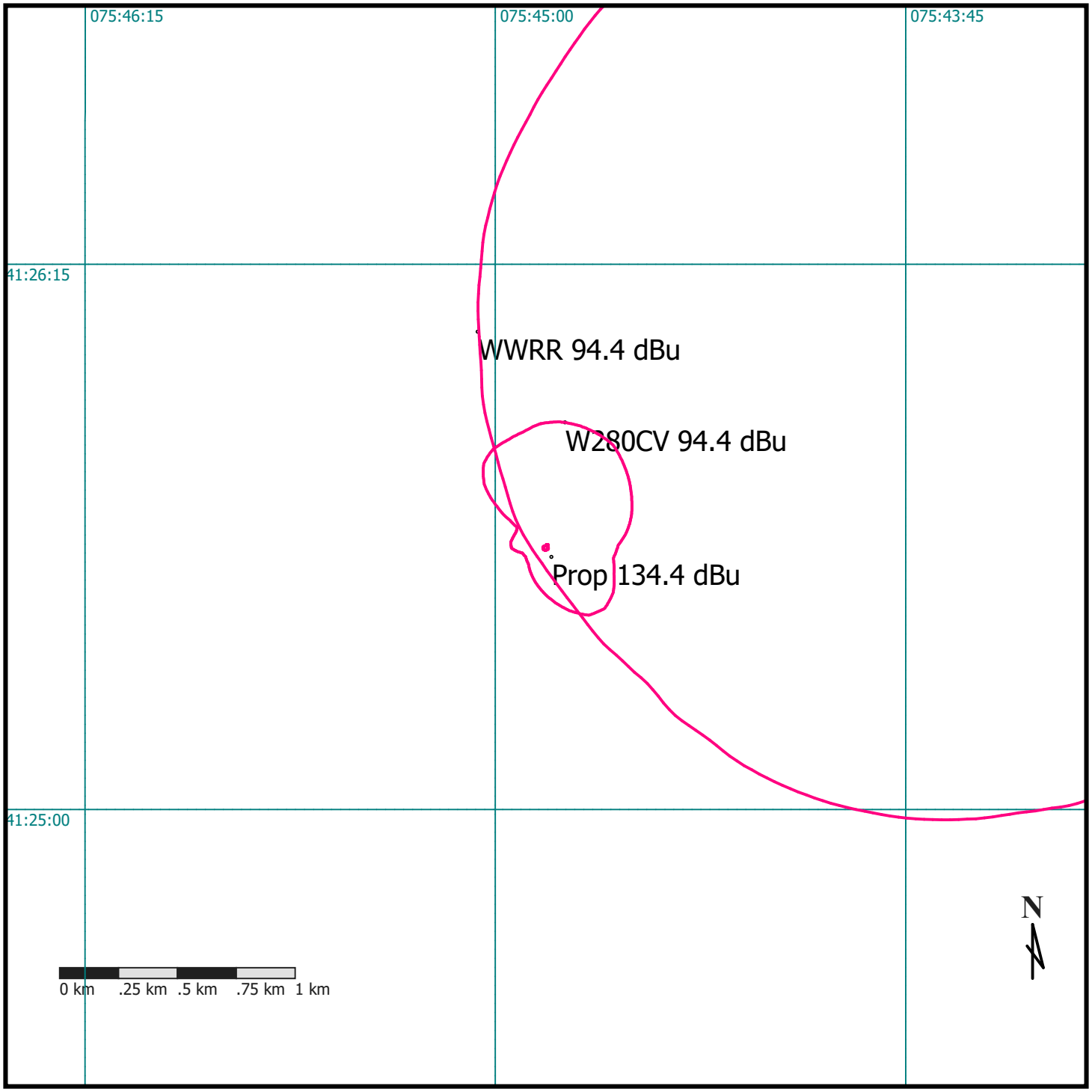
For the foregoing reasons this applicant submits that the predicted interference to WWRR, Scranton, PA and W280CV, Scranton, PA is allowable under Section 74.1204(d) of the Commission’s rules. Furthermore, grant of this application is in the public interest as it would increase the coverage area of a radio facility in this area and impose no hardship to the referenced facilities, WWRR, Scranton, PA and W280CV, Scranton, PA.

By: Kevin Fitzgerald, Chief Engineer

Contour Analysis

Kevin Fitzgerald
Job: W283BE Bald Max Desired to Undesired.fmj
Master Database: 2021_Aug_23.fmd
Lat: N41:25:36 Lon: W075:44:51 NAD-83
Scale: 1:24000
Channel: 283 Class: DX
Status: Licensed, Construction Permit, Application
Channels:
Range: 100 km, Clearance: -0.5km
Comments: No Comments
Description: W283BE, 104.5, Scranton, PA; Desired to Undesired Analysis; Bald Max Site

rfInvestigator Version 3.8.16
by rfSoftware, Inc.
Date: 10/10/2022 9:19:01 AM
Key:
City Grade
Protected
Co-Channel
1st Adj
2nd/3rd Adj



W283BE Bald Max Vertical Study
74.1204(d) Showing
W283BE
Scranton, PA

ERP (kw): 0.194
Height of Antenna above Ground (m): 55
Translator's IX Contour: 134.4
Antenna Type: 2 Scala CA2 45 deg Slant 097204

Depression Angle from Horizon	Antenna Relative Field	ERP (kw) from the Antenna RF	Dist. To IX Contour (m)	Height IX Contour Above Ground (m)
0	1.000	0.1940	18.6166	55.000
5	0.990	0.1901	18.4305	53.394
10	0.978	0.1856	18.2071	51.838
15	0.957	0.1777	17.8161	50.389
20	0.915	0.1624	17.0342	49.174
25	0.865	0.1452	16.1034	48.194
30	0.808	0.1267	15.0422	47.479
35	0.745	0.1077	13.8694	47.045
40	0.675	0.0884	12.5662	46.923
45	0.595	0.0687	11.0769	47.167
50	0.510	0.0505	9.4945	47.727
55	0.430	0.0359	8.0051	48.443
60	0.345	0.0231	6.4227	49.438
65	0.265	0.0136	4.9334	50.529
70	0.190	0.0070	3.5372	51.676
75	0.125	0.0030	2.3271	52.752
80	0.075	0.0011	1.3962	53.625
85	0.055	0.0006	1.0239	53.980
90	0.050	0.0005	0.9308	54.069

Note: Input the ERP, Height of the antenna above Ground, the Calculated Translator IX contour, and the specified Antenna Relative Field Pattern.