

SECTION 74.1204(d) STUDY

This narrative exhibit demonstrates that the predicted interference to the 60 dBu contours of the second-adjacent WOTH and W296AP, Williamsport, PA is allowable under the rules stated in 47 CFR 74.1204(d).

In support thereof this Applicant states the following:

1. WOTH and W296AP, Williamsport, PA PA second 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 contour (WOTH and W296AP) that would encompass the proposed translator antenna site and that contour which is 40 dBu greater than the associated coverage contours.
2. This translator's antenna location is located within the 60 dBu contours (based on 73.333 F(50/50)) of WOTH and W296AP, Williamsport, 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 WOTH and W296AP. Included as Figure 1 of this exhibit is a map showing that the 70.8 dBu coverage contour of WOTH encompasses the proposed antenna site along with the entire proposed 110.8 dBu interference contour. As the proposed 110.8 dBu interference contour is 40 dBu greater than the 70.8 dBu contour of WOTH 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. No showing is needed for W296AP as its coverage contour is the 92.9 dBu contour and the associated interference contour for this proposal is the 132.9 dBu interference contour which is much smaller than the 110.8 dBu interference contour; no showing is required for W296AP.

3. Given this translator's requested effective radiated power of 250 watts, Directional; the predicted 110.8 dBu interference contour for this proposal would be small. At any HAAT value, the 110.8 dBu contour distance for this proposal is 0.32 kilometers (320 meters) at 63 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 24 meters above ground on a radio communications tower. The area of potential interference is within 320 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 in a rural, forested, unpopulated area. A "Google Maps" geographic satellite map has been provided as an attachment to show this unpopulated area within the 110.8 dBu contour of this proposal. A uniform circular 320 meters from the site is unpopulated on the map. 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 WOTH and W296AP, Williamsport, 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, WOTH and W296AP, Williamsport, PA.

By: Kevin Fitzgerald, Technical Consultant

Contour Analysis

Kevin Fitzgerald

Job: W291DR 107.5 Desired to Undesired.fmj

Master Database: 2022_Nov_24.fmd

Lat: N41:12:32 Lon: W076:57:30 NAD-83

Scale: 1:24000

Channel: 298 Class: DX

Status: Licensed, Construction Permit, Application, Addition, Temp Authority, Vacant/Reserved, Deleted

Channels:

Range: 100 km, Clearance: -0.5km

Comments: No Comments

Description: W291DR, 107.5, Muncy, PA; Desired to Undesired Analysis; 250 watts DA

rfInvestigator Version 3.8.16

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Date: 12/6/2022 1:25:41 AM

Key:

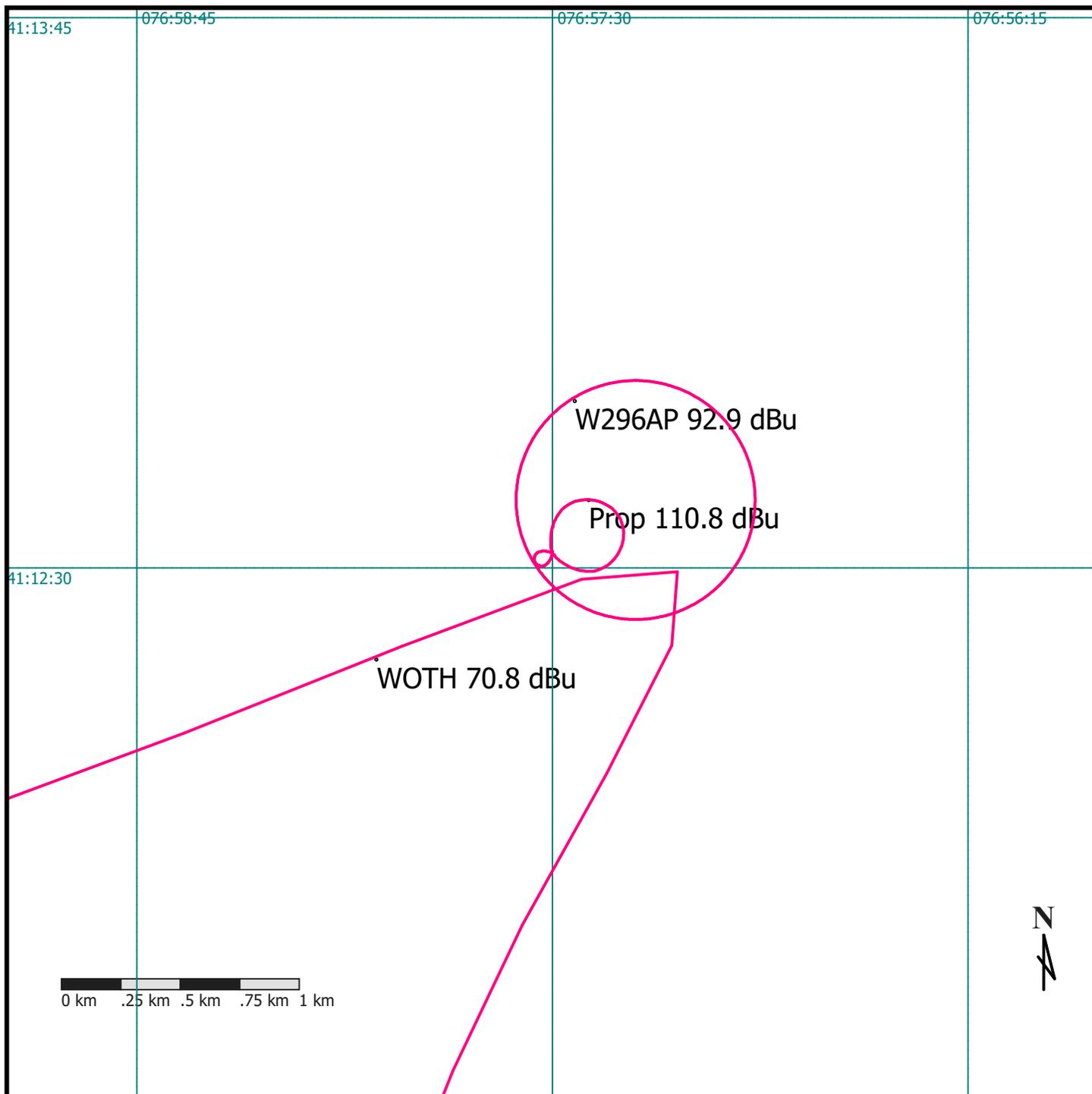
City Grade

Protected

Co-Channel

1st Adj

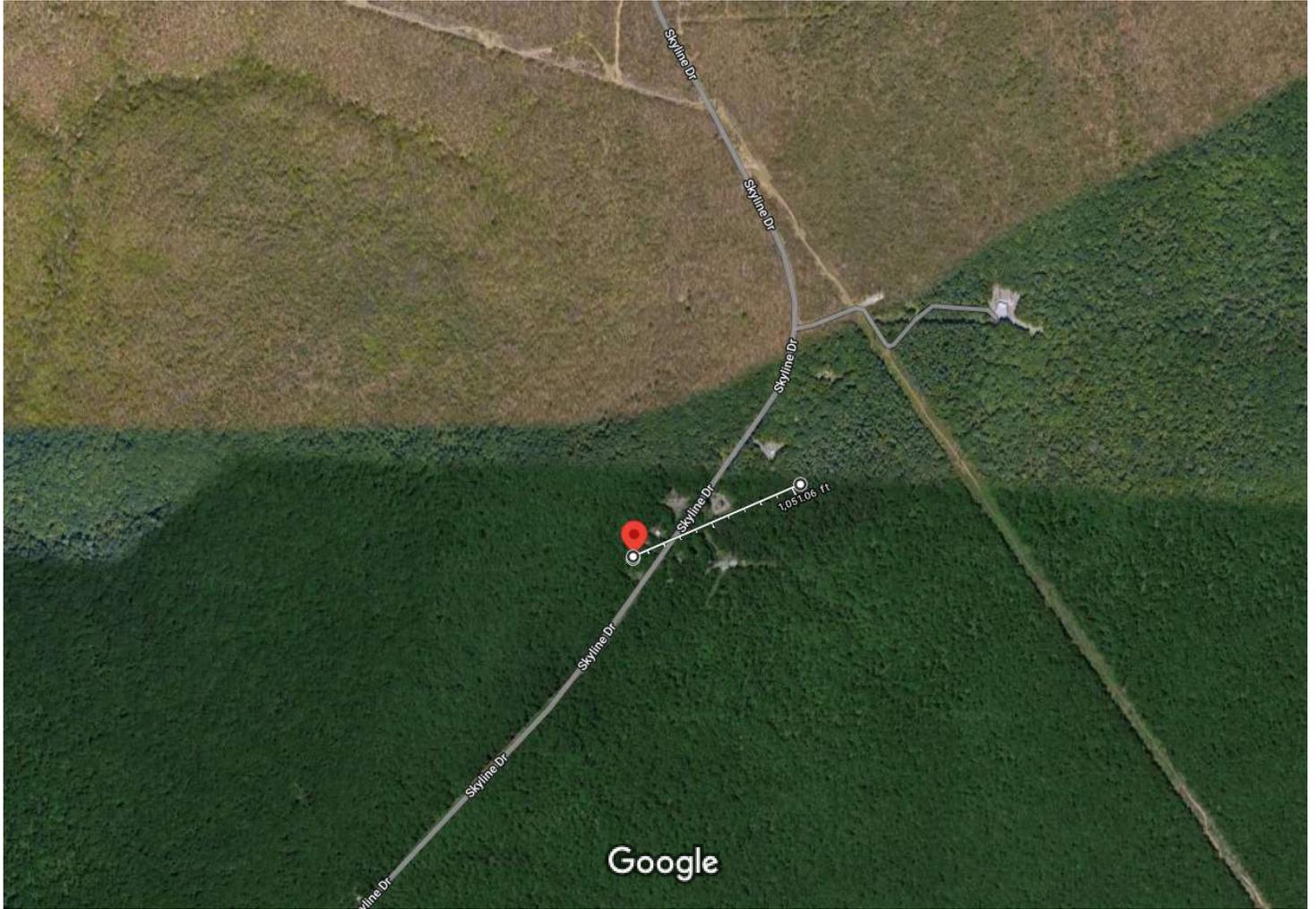
2nd/3rd Adj





41°12'32.0"N 76°57'30.0"W

W291DR, 107.5, Muncy, PA; Bald Eagle Mountain Tower Farm. Skyline Drive is an unpopulated, gated limited access tower road.



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500 ft

Measure distance
Total distance: 1,051.06 ft (320.36 m)