

SECTION 74.1204(d) STUDY

This narrative exhibit demonstrates that the predicted interference to the 54 dBu contour of the second-adjacent WCFT-FM, Bloomsburg, PA is allowable under the rules stated in 47 CFR 74.1204(d).

In support thereof this Applicant states the following:

1. WCFT-FM, Bloomsburg, PA second adjacent channel facility to this translator proposal, is protected from interference within its 54 dBu contour 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 (WCFT-FM) 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 54 dBu contour (based on 73.333 F(50/50)) of WCFT-FM, Bloomsburg, 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 WCFT-FM. Included as Figure 1 of this exhibit is a map showing that the 60.3 dBu coverage contour of WCFT-FM encompasses the proposed antenna site along with the entire proposed 100.3 dBu interference contour. As the proposed 100.3 dBu interference contour is 40 dBu greater than the 60.3 dBu contour of WCFT-FM 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 250 watts, Directional; the predicted 100.3 dBu interference contour for this proposal would be small. At any HAAT value, the 100.3 dBu contour

distance for this proposal is 1.07 kilometers (1,070 meters) at 100 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 1,070 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 100.3 dBu contour of this proposal. A uniform circular 1,070 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.

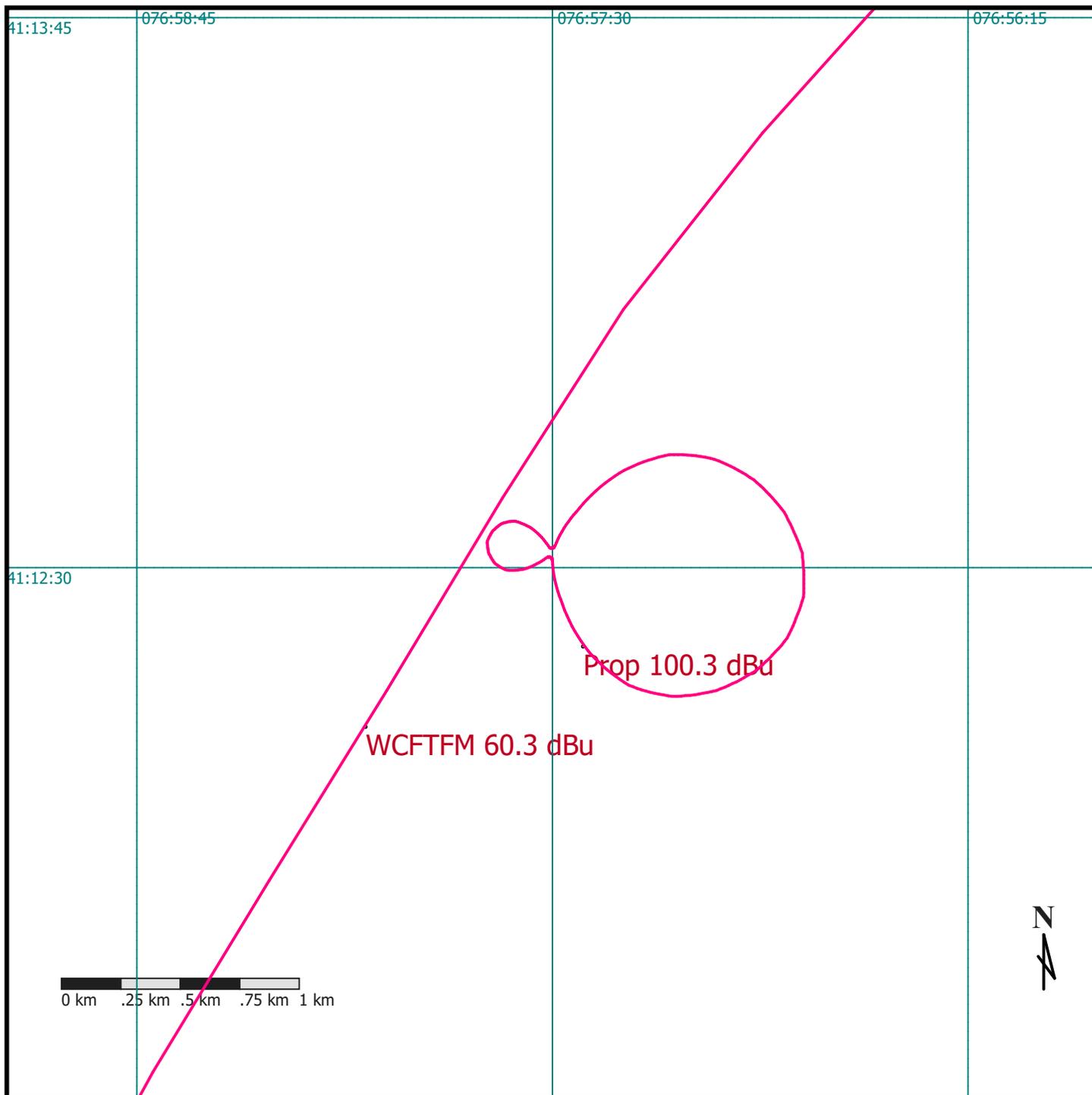
For the foregoing reasons this applicant submits that the predicted interference to WCFT-FM, Bloomsburg, PA is allowable under Section 74.1204(d) of the Commission's rules. Furthermore, grant of this application is in the public interest as it would increase the coverage area of a radio facility in this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

By: Kevin Fitzgerald, Technical Consultant

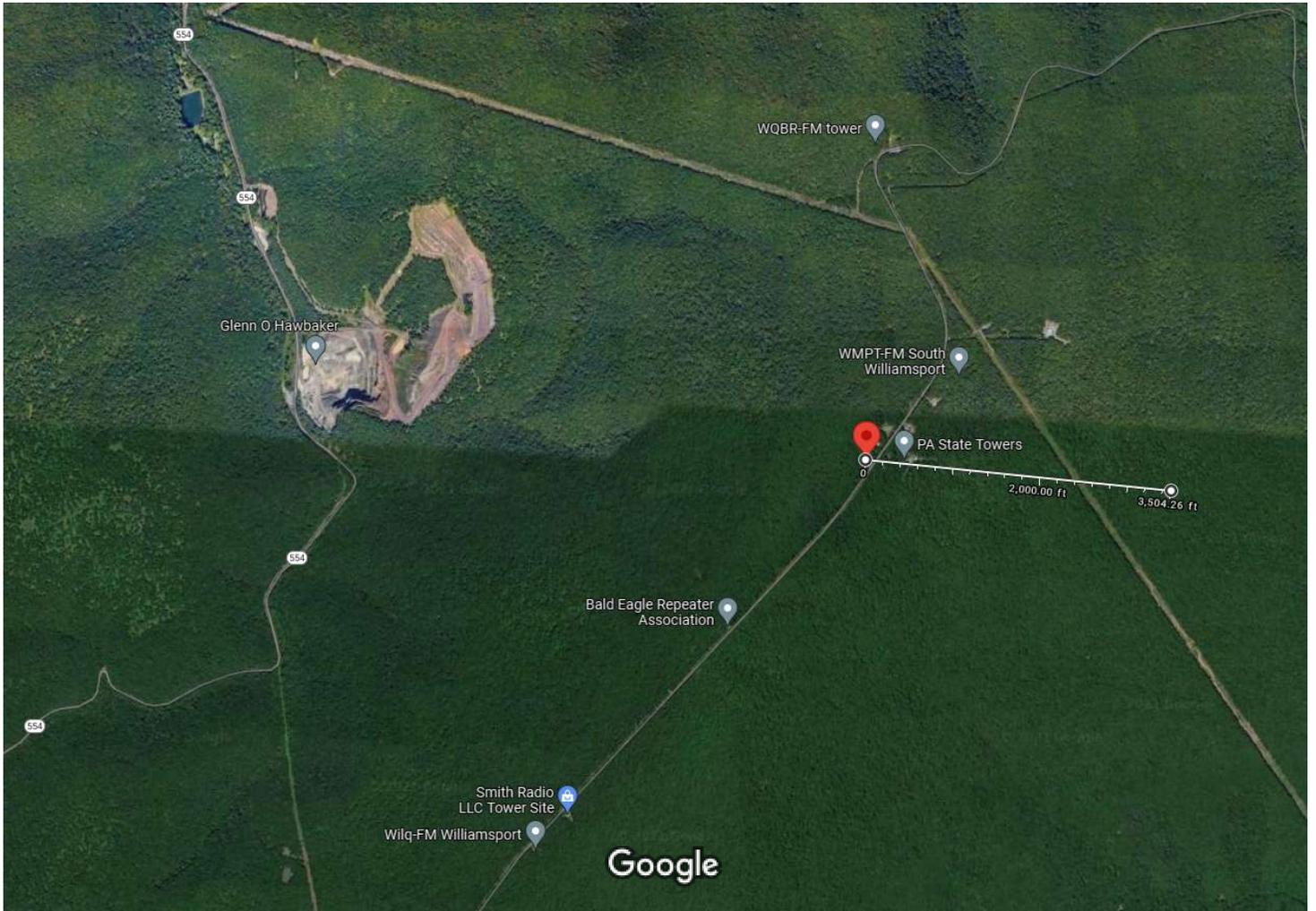
Contour Analysis

Kevin Fitzgerald
Job: W234AQ Bald E Desired to Undesired.fmj
Master Database: 2021_Sep_04.fmd
Lat: N41:12:32 Lon: W076:57:30 NAD-83
Scale: 1:24000
Channel: 291 Class: DX
Status: Licensed, Construction Permit, Application, Addition, Temp Authority, Vacant/Reserved, Deleted
Channels:
Range: 100 km, Clearance: -0.5km
Comments: No Comments
Description: W234AQ, 106.1, Muncy, PA; Desired to Undesired Analysis

rfInvestigator Version 3.8.16
by rfSoftware, Inc.
Date: 9/5/2021 11:16:53 PM
Key:
City Grade
Protected
Co-Channel
1st Adj
2nd/3rd Adj

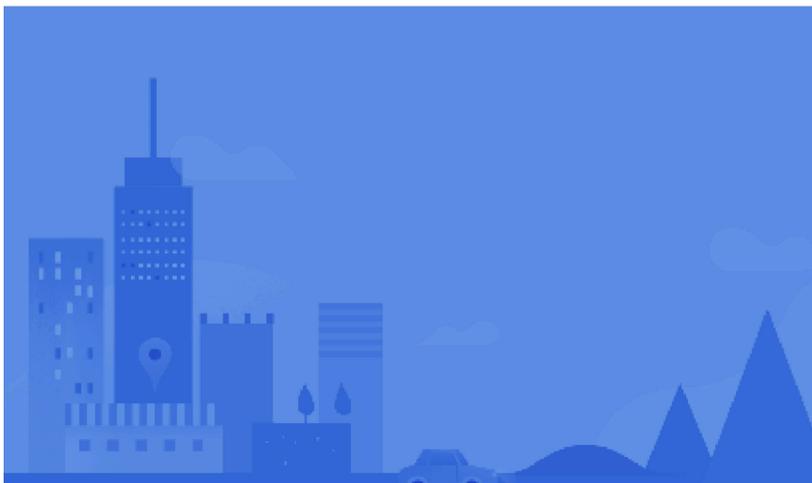


Google Maps 41°12'32.0"N 76°57'30.0"W



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1000 ft 



41°12'32.0"N 76°57'30.0"W

41.208889, -76.958333



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Armstrong Township, PA 17702



625R+HM South Williamsport, Pennsylvania

Measure distance

Total distance: 3,504.26 ft (1.07 km)