

SECTION 74.1204(d) STUDY

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

In support thereof this Applicant states the following:

1. WTRW, Carbondale, PA, third adjacent channel facility to this translator proposal, is protected from interference within its 60 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 contours (WTRW) 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 contour (based on 73.333 F(50/50)) of WTRW, Carbondale, 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 WTRW. Included as figure 1 of this exhibit is a map showing that the 63.4 dBu coverage contour of WTRW encompasses the proposed antenna site along with the entire proposed 103.4 dBu interference contour. As the proposed 103.4 dBu interference contour is 40 dBu greater than the 63.4 dBu contour of WTRW 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 103.4 dBu interference contour for this proposal would be small. At any HAAT value, the 103.4 dBu contour

distance for this proposal is 0.75 kilometers (750 meters) at 95 degrees from true north and smaller than this in all other directions.

4. This proposed translator proposal is situated in a sparsely populated hilltop tower farm area 30 meters above ground on a radio communications tower. The area of potential interference is within 750 meters at most from the antenna, and less because of the directional pattern of the proposed antenna. Even using a Non-Directional antenna pattern, the entire area of interference (a circle) is in a rural, unpopulated area. A "Google Maps" geographic satellite map has been provided as an attachment to show this unpopulated area within the 103.4 dBu contour of this proposal. 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 WTRW, Carbondale, 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, WTRW, Carbondale, PA.

By: Kevin Fitzgerald, Chief Engineer

Contour Analysis

Kevin Fitzgerald

Job: W235DC Dickson City Bald Desired to Undesired.fmj

Master Database: 2021_Feb_18.fmd

Lat: N41:25:36 Lon: W075:44:51 NAD-83

Scale: 1:24000

Channel: 235 Class: DX

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

Channels:

Range: 100 km, Clearance: -0.5km

Comments: No Comments

Description: W235DC Dickson City, PA Bald, Desired to Undesired Analysis

rfInvestigator Version 3.8.16

by rfSoftware, Inc.

Date: 2/18/2021 11:54:32 PM

Key:

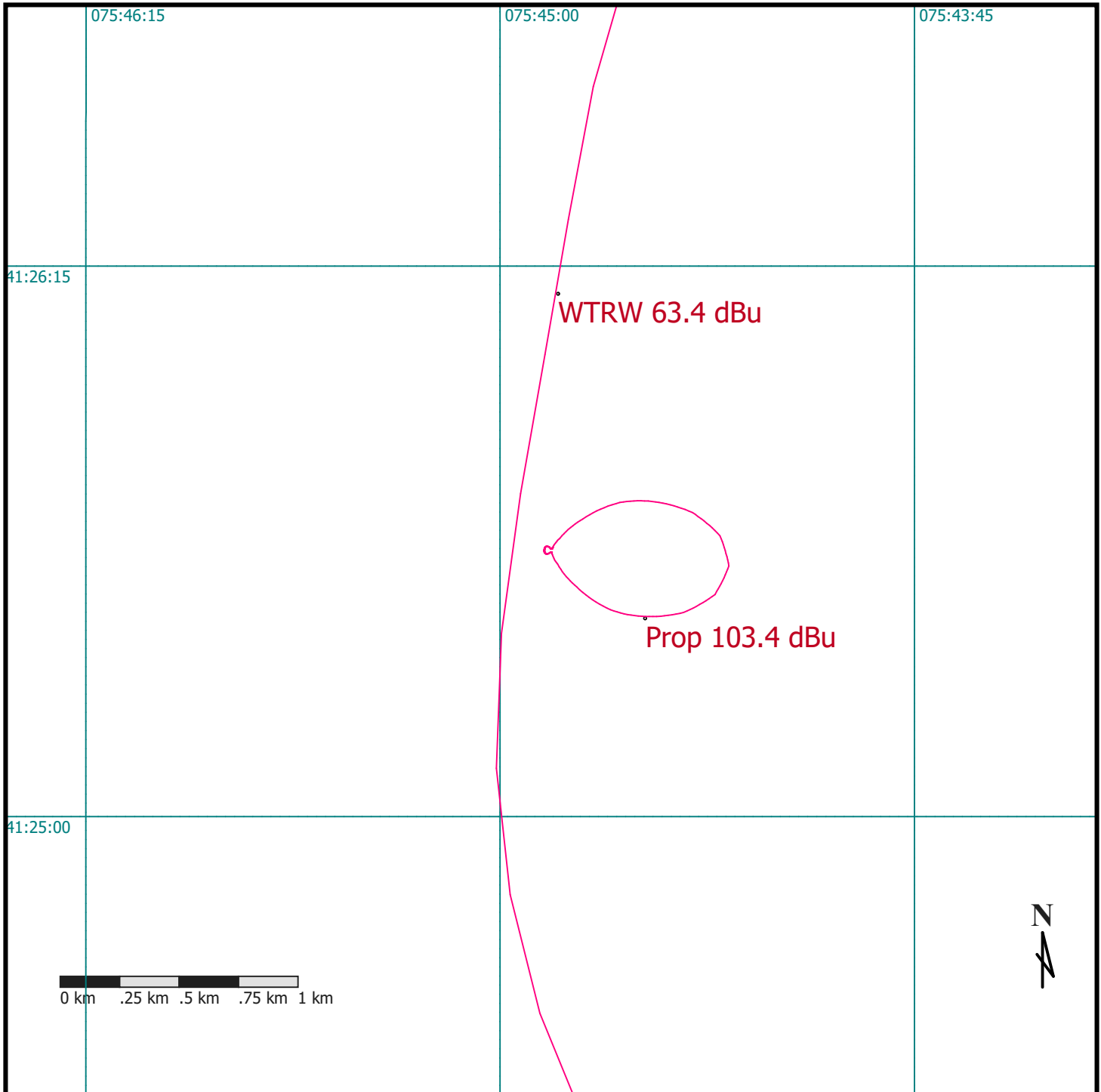
City Grade

Protected

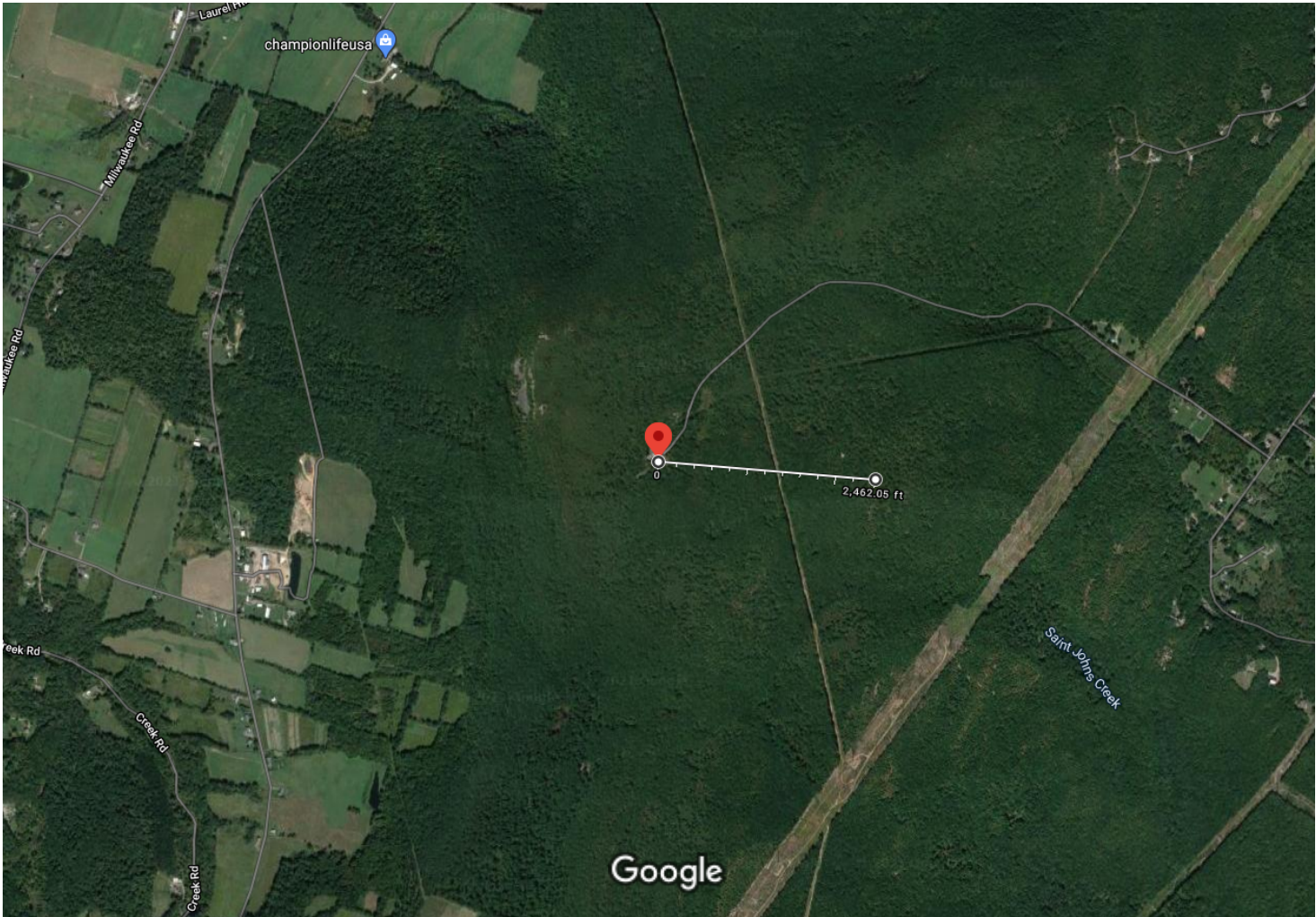
Co-Channel

1st Adj

2nd/3rd Adj



Google Maps 41°25'36.0"N 75°44'50.5"W



Imagery ©2021 CNES / Airbus, Maxar Technologies, PA Department of Conservation and Natural Resources-PAMAP/USGS, USDA Farm Service Agency, Map data ©2021 1000 ft

Measure distance
Total distance: 2,462.05 ft (750.43 m)