

Supplemental Analysis

Demonstration of Section 74.1204(i) Compliance

STATIONS WXRV-1 (BNPFTB-20150820CFI), WXRV-2 (BNPFTB-20150820CMY),  
WXRV-3 (BNPFTB-20150820CMZ), WXRV-4 (BNPFTB-20150820CNA), and WXRV-5  
(BNPFTB-20150922ACL)

Beanpot License Corp. (“Beanpot”) is the licensee of Station WXRV(FM), Channel 223B, Andover, Massachusetts, and wishes to add five FM boosters in order to improve its localized coverage in specific communities. The reason for Beanpot proposing to use multiple small boosters is to allow localized synchronization of the boosters with the main transmitter in order to reduce the potential for self-interference and tightly control the coverage.

The proposed Station WXRV boosters will be used with what is a short-spaced, grandfathered class B FM station operating pursuant to Section 73.213 of the Commission’s rules. That first adjacent facility is Station WPRO-FM, Providence, Rhode Island (FIN: 64841) (Channel 222B). Section 74.1204(i) informs that potential interference to short-spaced stations from FM boosters should be analyzed differently than boosters that are compliant with Section 73.207. Specifically, it provides:

*(i) FM booster stations shall be subject to the requirement that the signal of any first adjacent channel station must exceed the signal of the booster station by 6 dB at all points within the protected contour of any first adjacent channel station, except that in the case of FM stations on adjacent channels at spacings that do not meet the minimum distance separations specified in §73.207 of this chapter, the signal of any first adjacent channel station must exceed the signal of the booster by 6 dB at any point within the predicted interference free contour of the adjacent channel station.*

Beanpot has performed a detailed analysis in order to demonstrate that the five proposed boosters will not cause any impermissible interference to first adjacent Station WPRO-FM and that the Station WPRO-FM signal will exceed the signal of the proposed WXRV boosters by at

least 6dB at any point within the predicted interference free contour of Station WPRO-FM and accordingly, that the proposed WXRV boosters will be compliant with Section 74.1204(i).

### METHODOLOGY

In order to demonstrate compliance with Section 74.1204(i), the following methodology was followed:

1. Analyze the licensed main Station WXRV and Station WPRO-FM signals to determine the interference-free contour of Station WPRO-FM and plot that interference-free contour on a map.
2. Plot each of the five proposed boosters and individually determine the area within which each booster exceeds the Station WPRO-FM signal by 6dB.
3. Verify that the entire area in which each booster exceeds the Station WPRO-FM signal by more than 6dB is outside the Station WPRO-FM calculated interference-free contour as determined in Item 1.

### CONCLUSION

As demonstrated in the attached exhibits, Station WPRO-FM exceeds the signal of each booster by at least 6dB at all locations inside the calculated Station WPRO-FM Interference-Free Contour. Consequently, the applications meet the requirements of Section 74.1204(i) and should be granted.

CERTIFICATION

The undersigned hereby certifies that the foregoing statement and associated attachments were prepared by him or under his direct supervision, and that they are true and correct to the best of his knowledge and belief.

A handwritten signature in cursive script, appearing to read "Bertram S. Goldman".

Bertram S. Goldman  
Goldman Engineering Management

EXHIBIT 1 – DETERMINATION OF WPRO-FM INTERFERENCE-FREE CONTOUR

Grandfathered Interference Analysis, WXRV (223B) to WPRO-FM (222B)

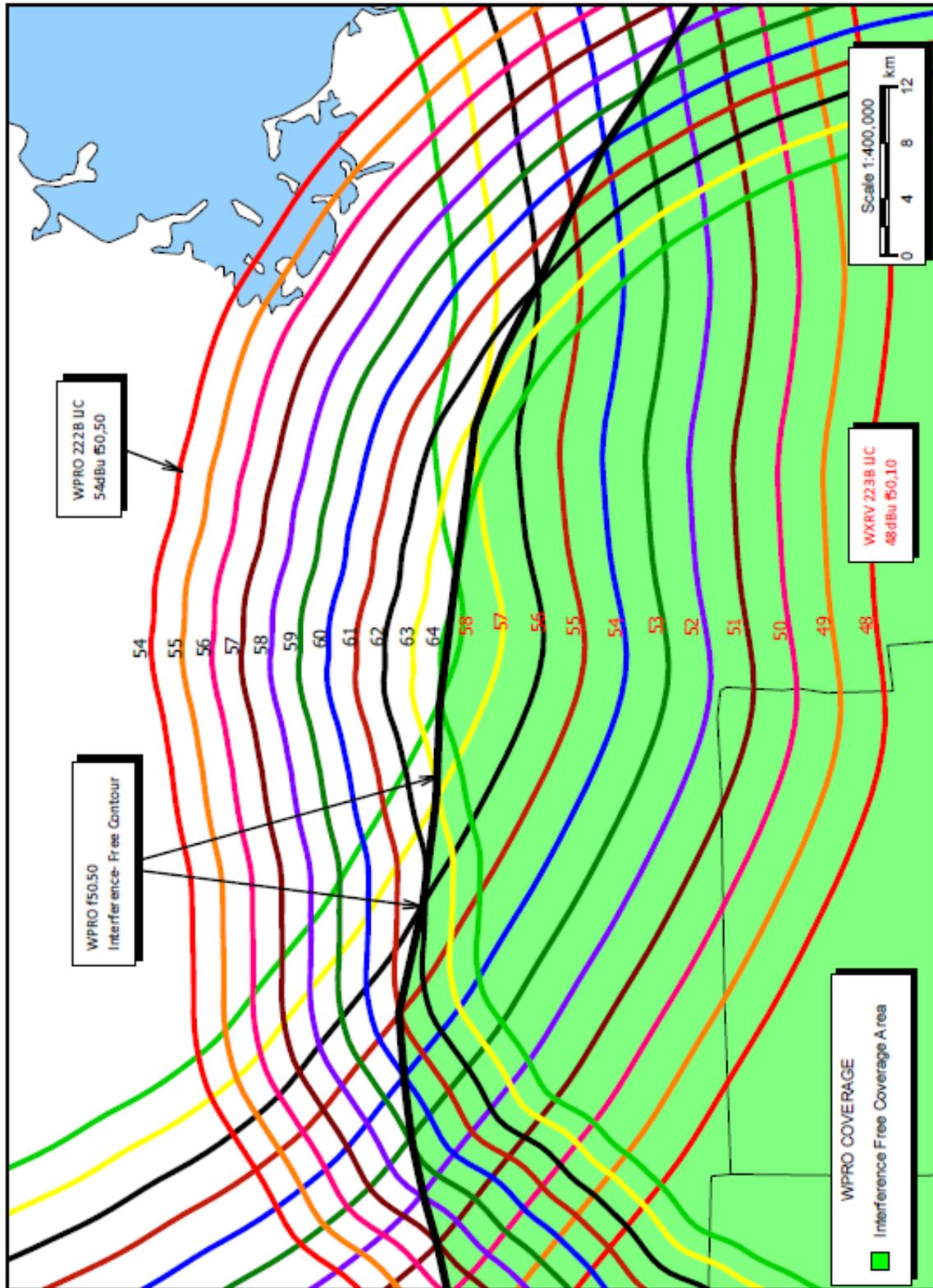


EXHIBIT 2-A- DETERMINATION OF INTERFERENCE COMPLIANCE STATION WXRV-1

WXRV-1 PROP Vs. WPRO Interference Free Contour

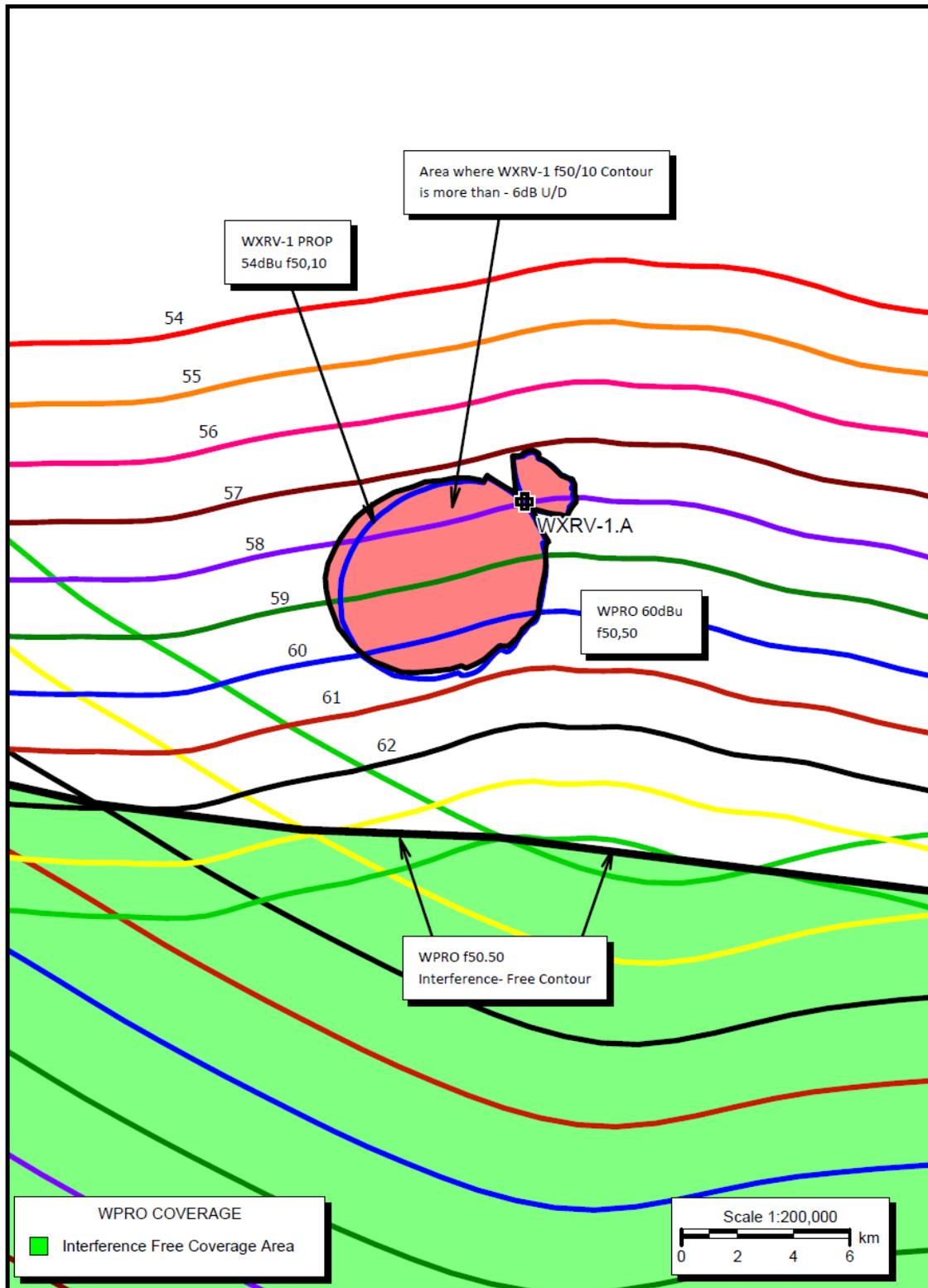


EXHIBIT 2-B - DETERMINATION OF INTERFERENCE COMPLIANCE STATION WXRV-2

WXRV-2 PROP Vs. WPRO Interference Free Contour

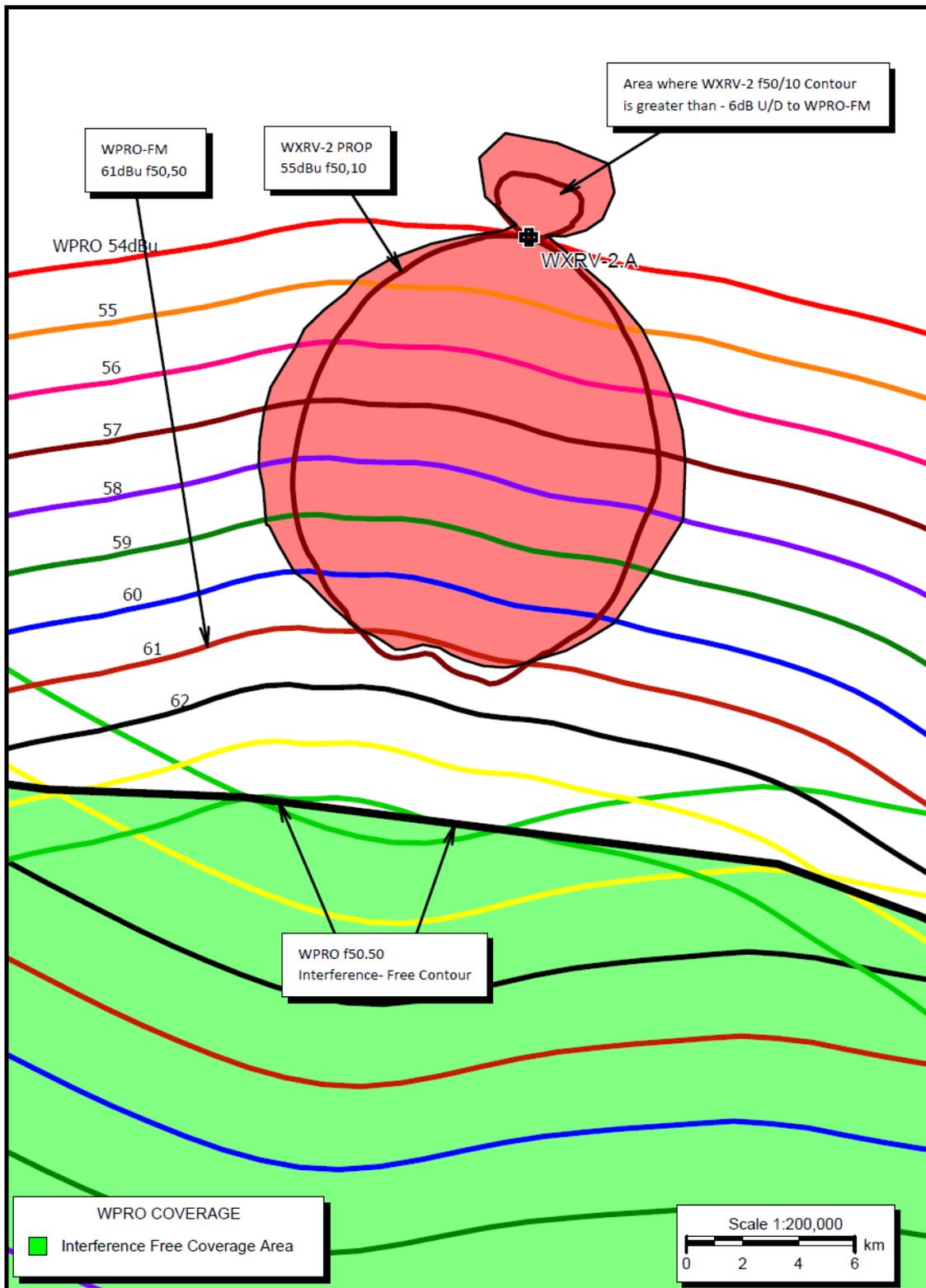


EXHIBIT 2 -C- DETERMINATION OF INTERFERENCE COMPLIANCE STATION WXRV-3

WXRV-3 PROP Vs. WPRO Interference Free Contour

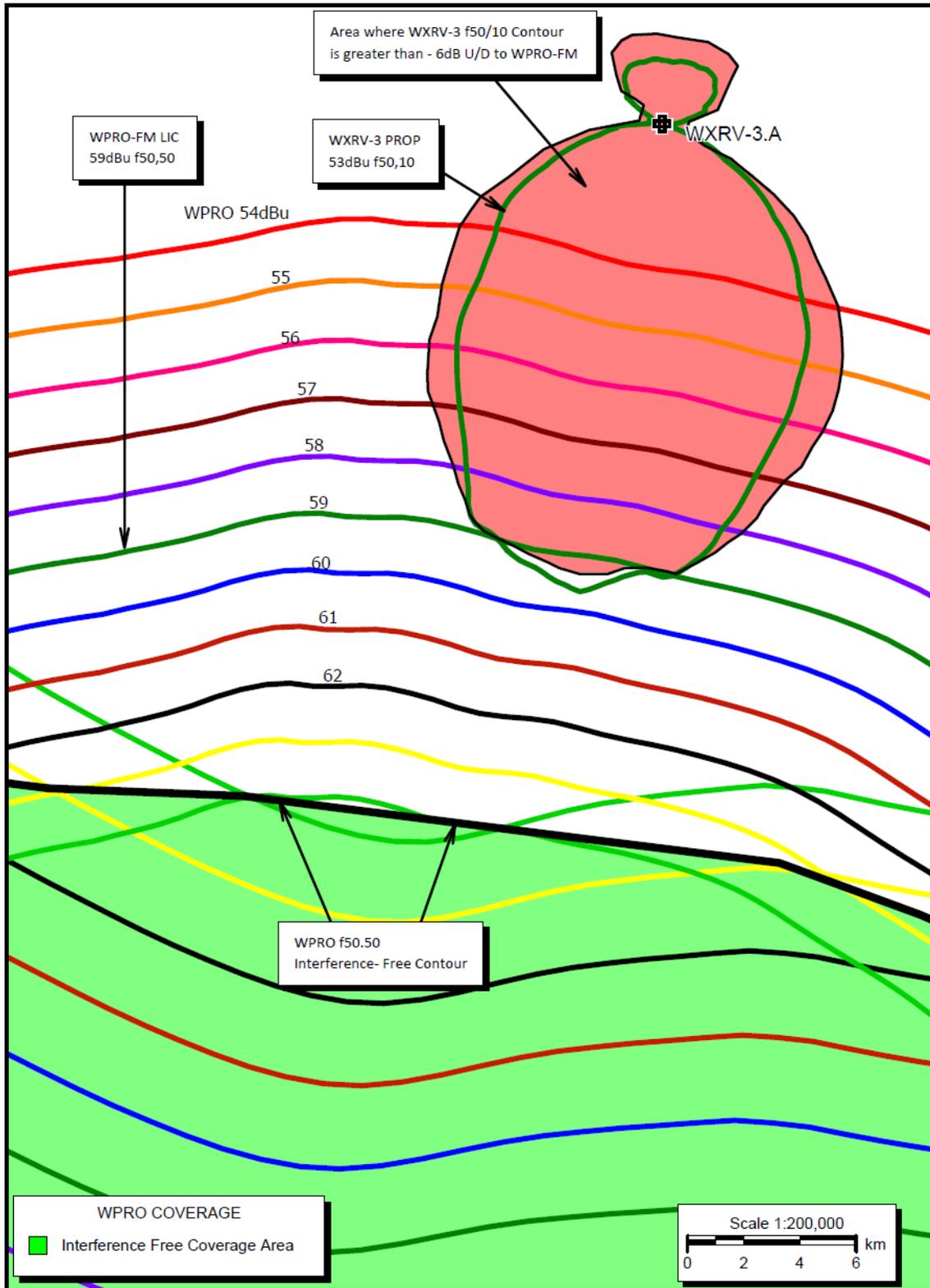


EXHIBIT 2-D- DETERMINATION OF INTERFERENCE COMPLIANCE STATION WXRV-4

WXRV-4 PROP Vs. WPRO Interference Free Contour

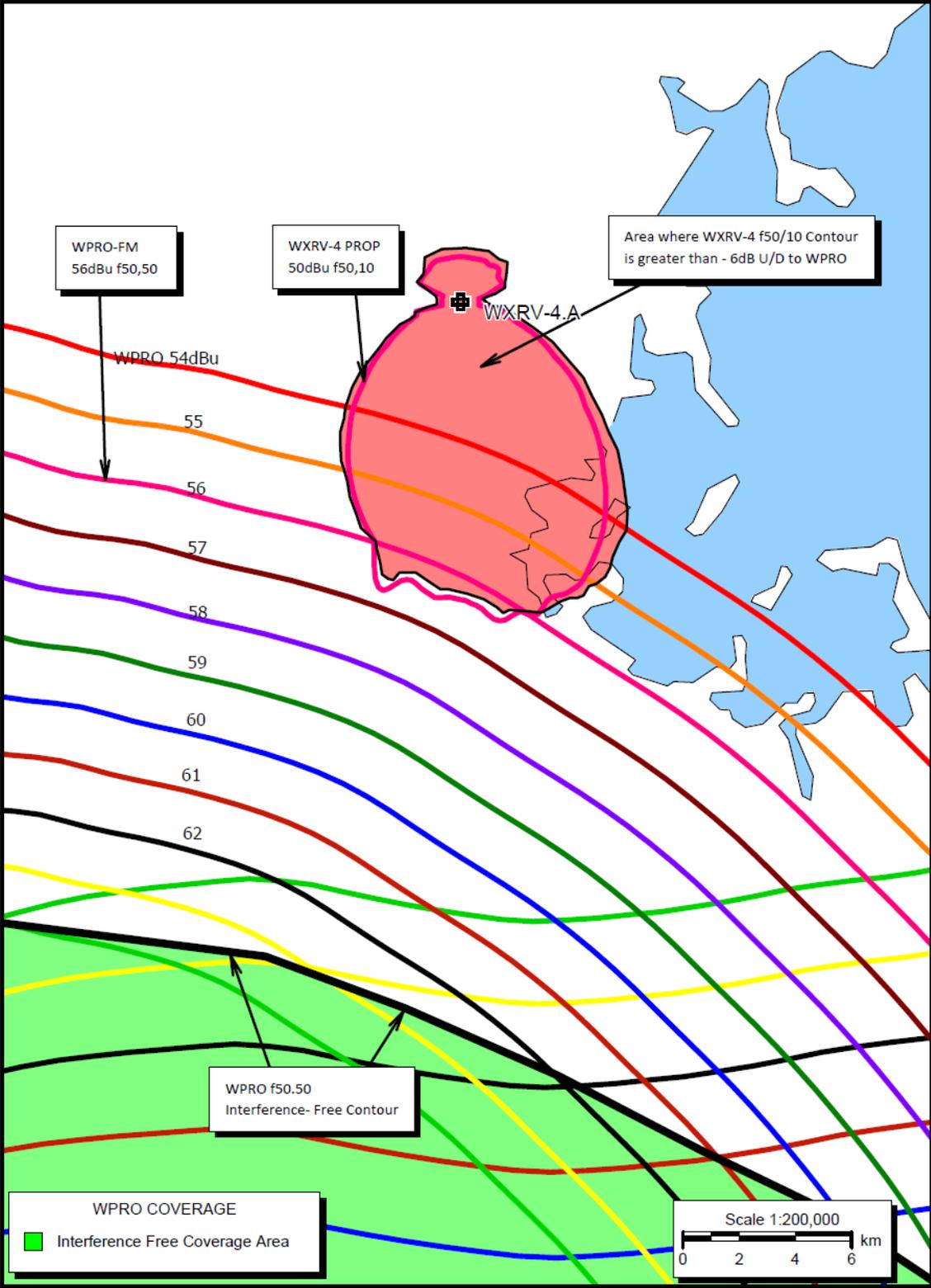
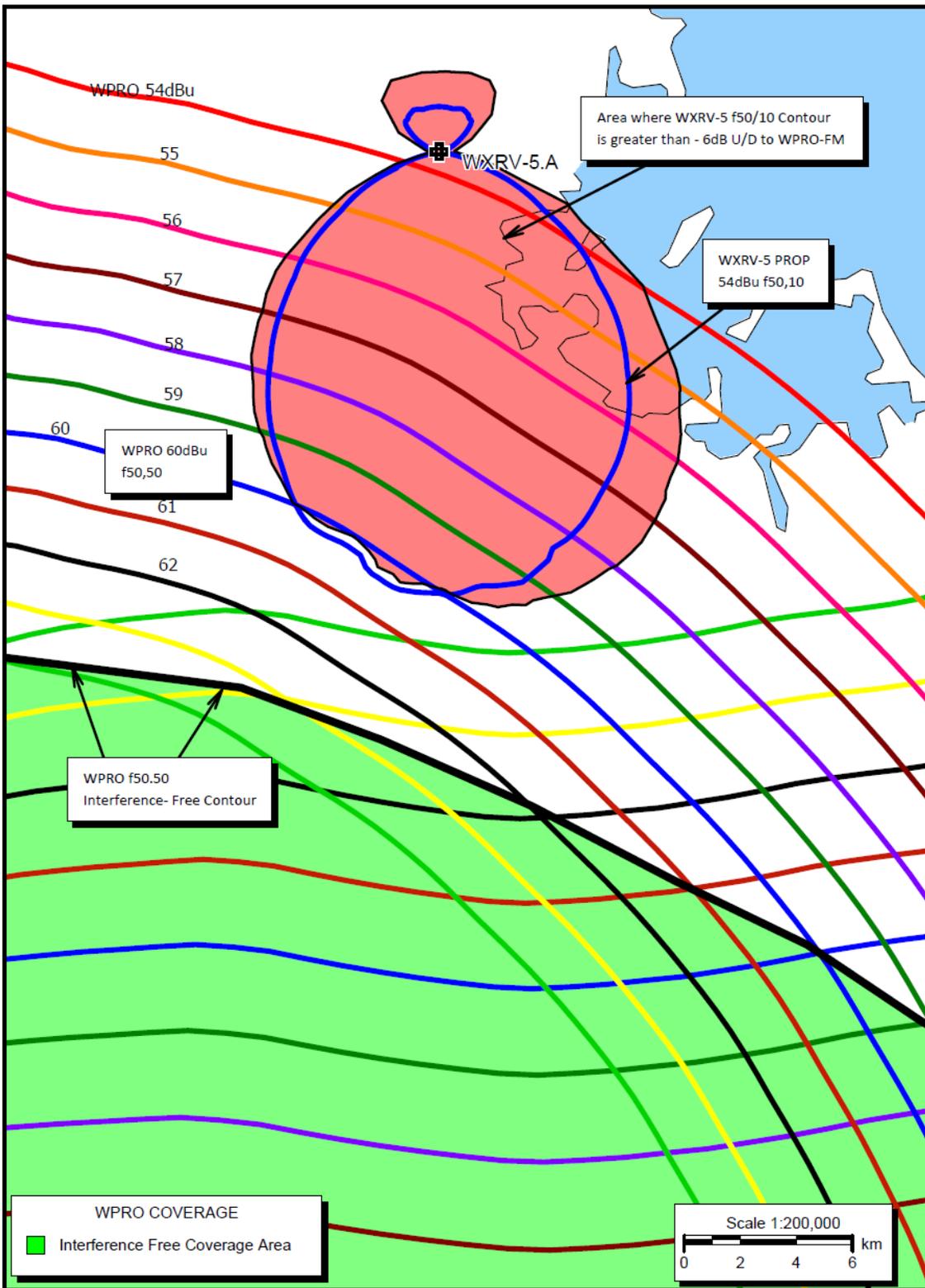


EXHIBIT 2- E- DETERMINATION OF INTERFERENCE COMPLIANCE STATION WXRV-5

WXRV-5 PROP Vs. WPRO Interference Free Contour



# EXHIBIT 3- Booster Relationship to Primary Station Contour

## WXRV 54dBu Contour Relationship to Booster 54dBu Contours

