

Engineering Statement in support of  
FCC FORM 349  
APPLICATION FOR AUTHORITY TO  
CONSTRUCT OR MAKE CHANGES  
IN AN FM TRANSLATOR  
(For Minor Change to a Licensed Facility )  
250-mile window application  
W238BS Facility ID 150964

This is a 250-mile window application by Christopher W Johnson (the Applicant) for a minor change to W238BS, Facility ID 150964 (the Translator).

The Translator will serve as a fill-in for AM station WJLD, Facility ID 56299, Fairfield, AL (the Primary Station). See *Fill-in Exhibit*.

A written agreement, authorizing the Translator to rebroadcast the programming of the Primary Station, is in place between the Applicant and the licensee of the Primary Station, Richardson Broadcasting Corp.

The proposed change is permitted under the 250-mile filing window.

The site is short-spaced to IF authorization WZZK-FM 284C0 so the proposed facility ERP is limited to 99-Watts.

The proposed facility is within the service contours of second-adjacent stations WDJC-FM 229C0 and WJOX-FM 233C0. See *2nd Adjacent Interference Exhibit*.

The proposed facility 100dBu interfering contour is contained within the 128dBu contour of WDJC-FM and the 113dBu contour of WJOX\_FM, so an interfering contour of 153dBu will provide 40dB or more of interference protection to either second adjacent station. See *2nd Adjacent Closeup Exhibit*.

The distance to a 153dBu contour at 99-Watts is 2-meters. Since the proposed facility antenna will be mounted at 136-meters AGL, all interference will be 134-meters or more above ground level.

The proposed facility will use a Scala CL-FMVR vertically polarized antenna, FCC standard pattern #16157, mounted 136 meters AGL

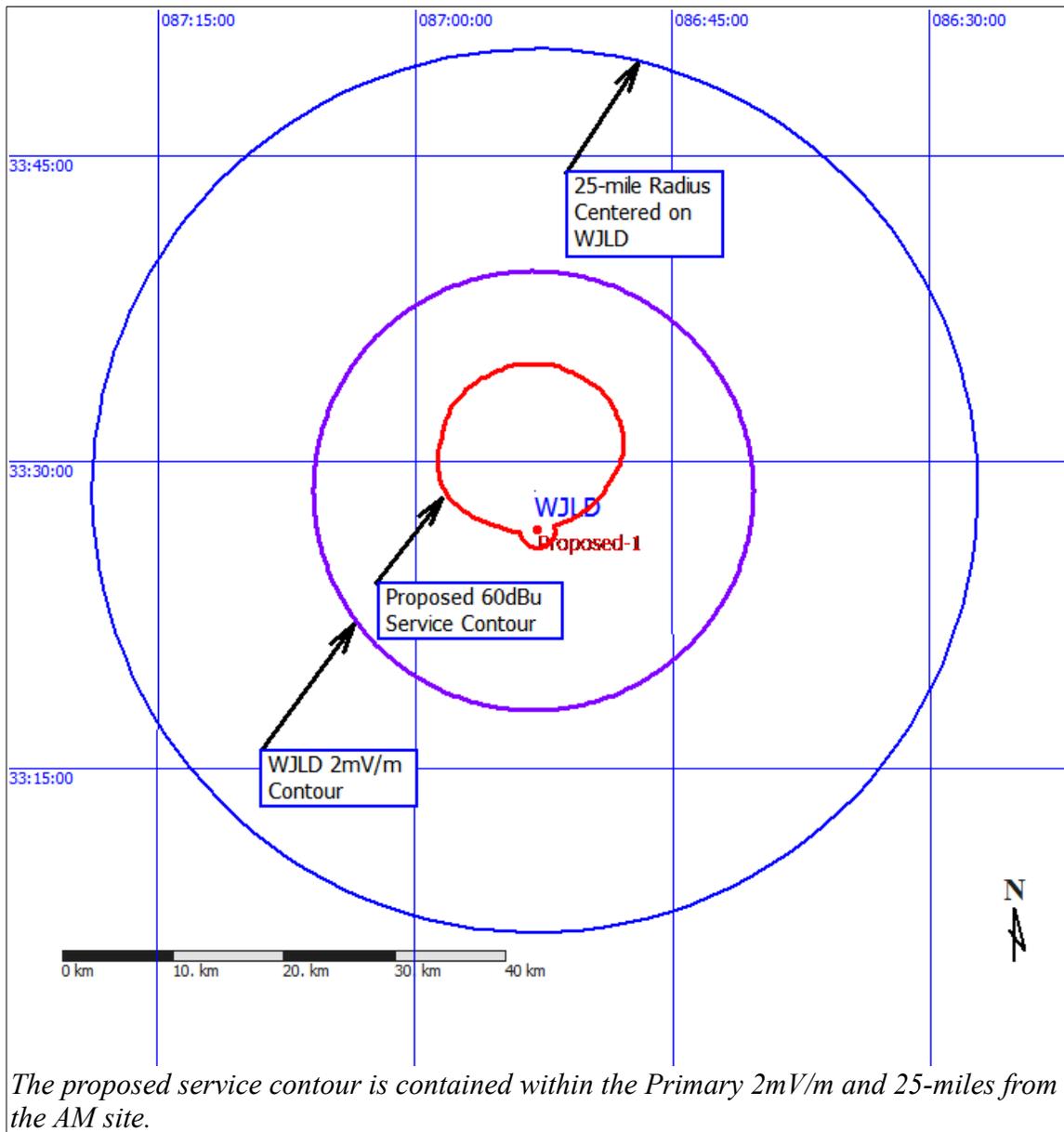
This application was prepared using FCC 30-arc-second terrain data.

### Section III-A Engineering Data:

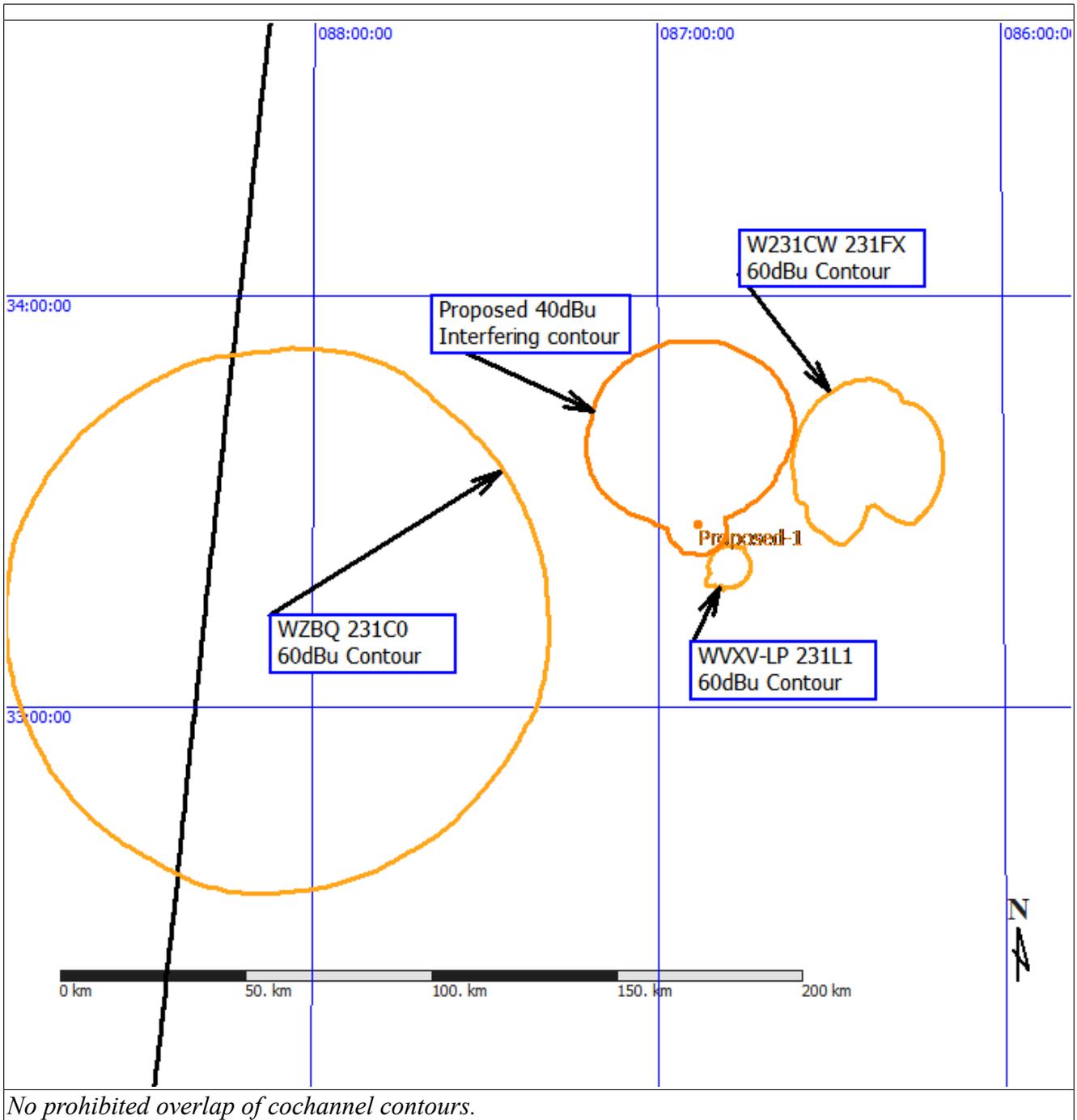
#### Tech Box Data:

1. Channel: 231
2. Primary Station: Facility ID 56299, Callsign WJLD, Fairfield, AL, 1400kHz
3. Delivery Method: Other
4. Antenna Location Coordinates: 33° 26' 39" N (NAD-27)  
86° 52' 46" W
5. Antenna Structure Registration Number: 1050337
6. Antenna Location Site Elevation: 290 meters AMSL
7. Overall Tower Height: 209 meters AGL
8. Height of Radiation Center: - meters (H) 136 (V) AGL
9. Effective Radiated Power: - kW (H) 0.070 kW (V)
10. Transmitting Antenna: SCA CL-FMVR. rotated 355°
11. Booster or Fill-in within protected contour: Yes.
12. Interference: No. Overlap with WDJC-FM 229C0 and WJOX-FM 233C0 and short-spaced to WZZK-FM 284C0 (IF)
  - a) Contour Overlap Requirements: Checked.
  - b) TV Channel 6 Protection: Not Checked.
13. Unattended Operation: Yes
14. Multiple Translators: Yes
15. NEPA, Yes.
  - a) Operation of this facility will not have a significant environmental impact. The existing site is located in a mountain top communications facility. To the best knowledge of the Applicant:
    1. The existing structure is not located in an officially designated wilderness area or wildlife preserve, nor does it threaten the existence or habitat of endangered species.
    2. The proposed changes will not affect districts, sites, buildings, structures or objects significant in American history, architecture, engineering or culture that are listed in the National Register of Historic Places, or eligible for listing.
    3. The site is not located in a flood plain. Nothing is proposed that would require significant changes in surface features such as wetland fill, deforestation or water diversion.
    4. The existing structure is marked and lighted in accordance with FAA requirements.
  - b) The Applicant will cooperate with all site users, managers and owners with regard to the cessation of operation or the reduction of operating power, whenever it is necessary to comply with the FCC Regulations and Guidelines on Human Exposure to Non-Ionizing RF Radiation.
  - c) The proposed site is in compliance with permissible exposure requirements in that its contribution to the RF environment is less than 0.1% of the maximum permitted level for public exposure. Based on this information the proposed facility is in compliance with 47 C.R.R. Section 1.1306 with regards to radio-frequency electromagnetic exposure. See *RFR Exhibit*.

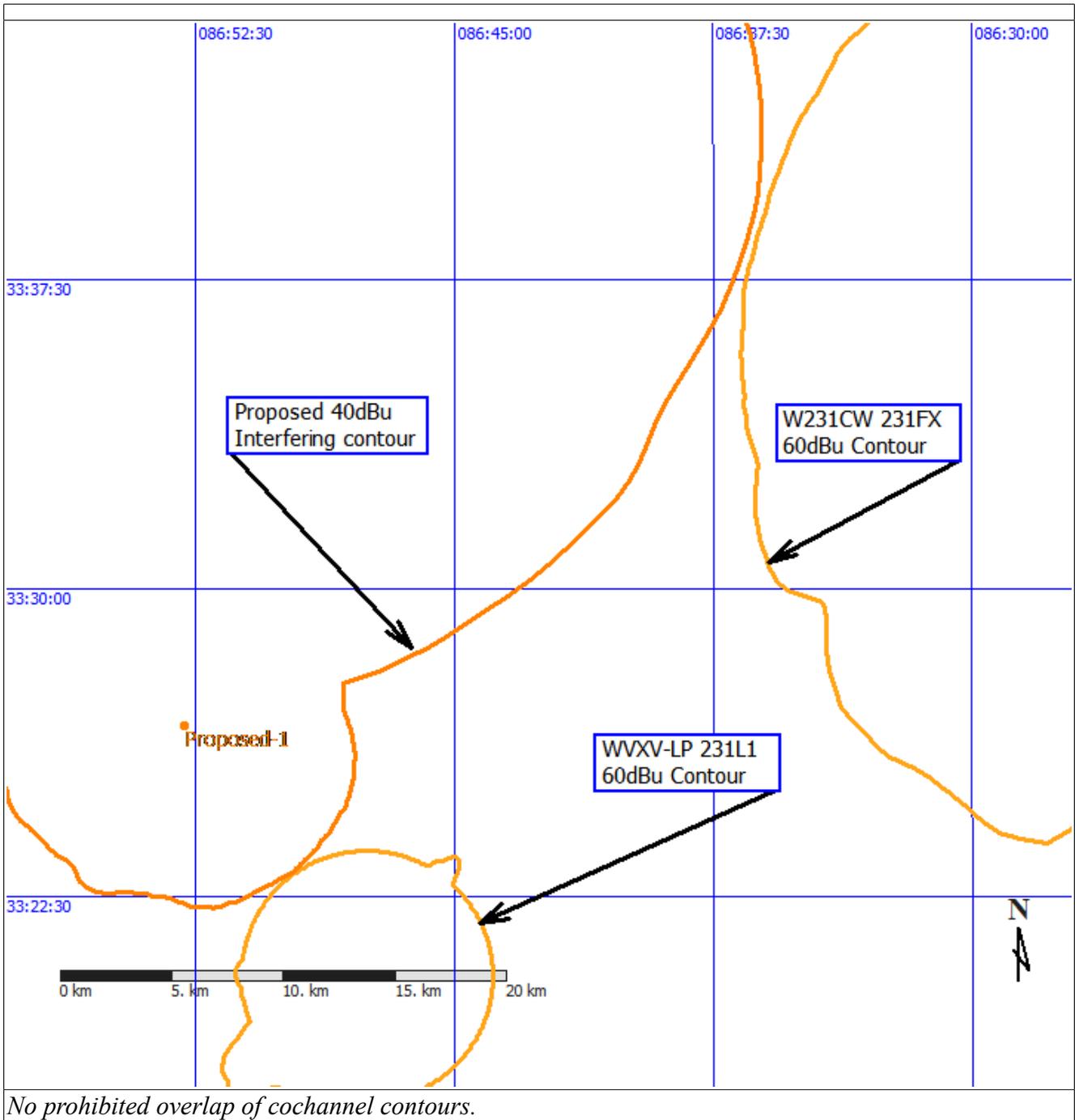
# Fill-In Exhibit



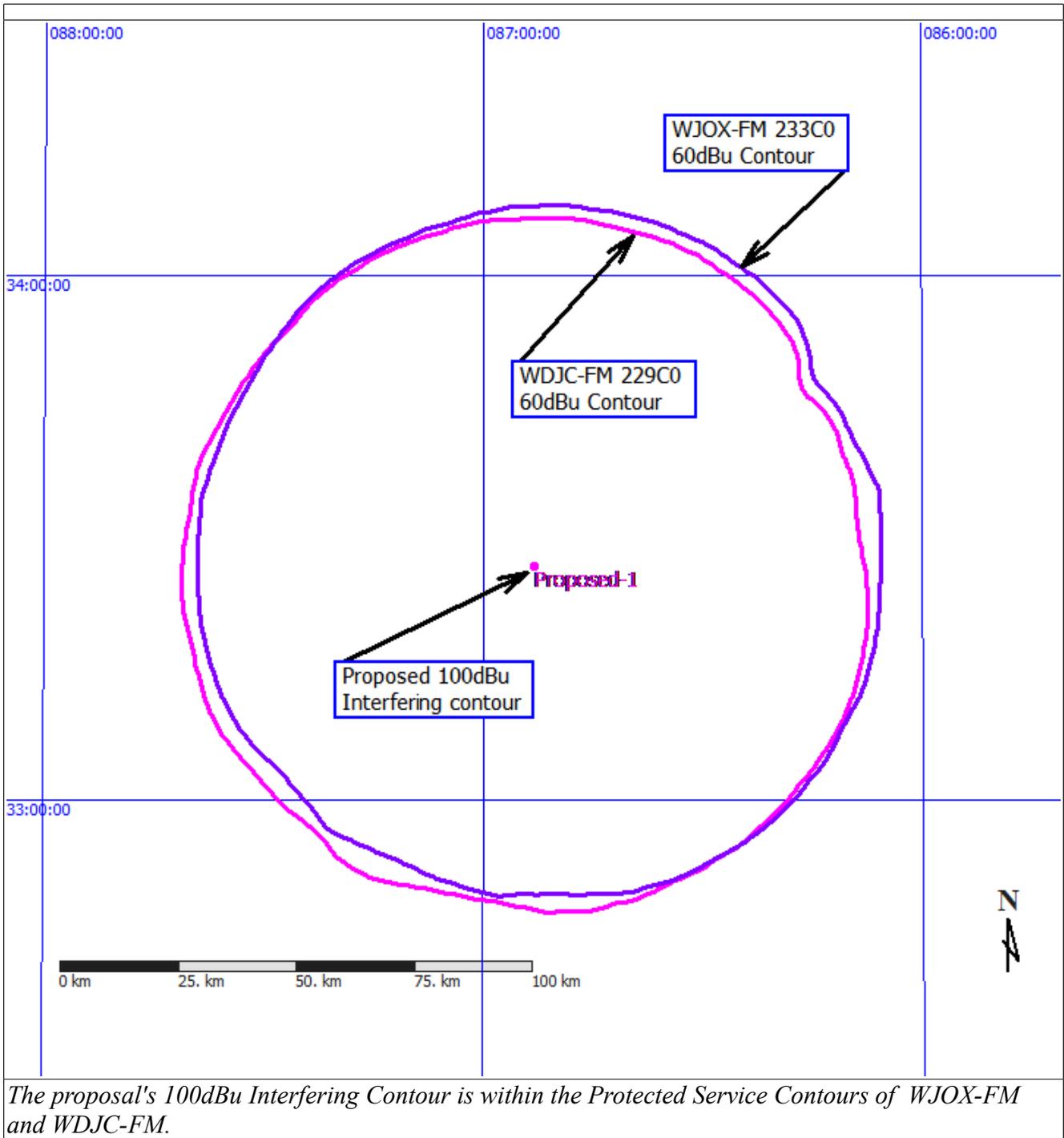
# Cochannel Interference Exhibit



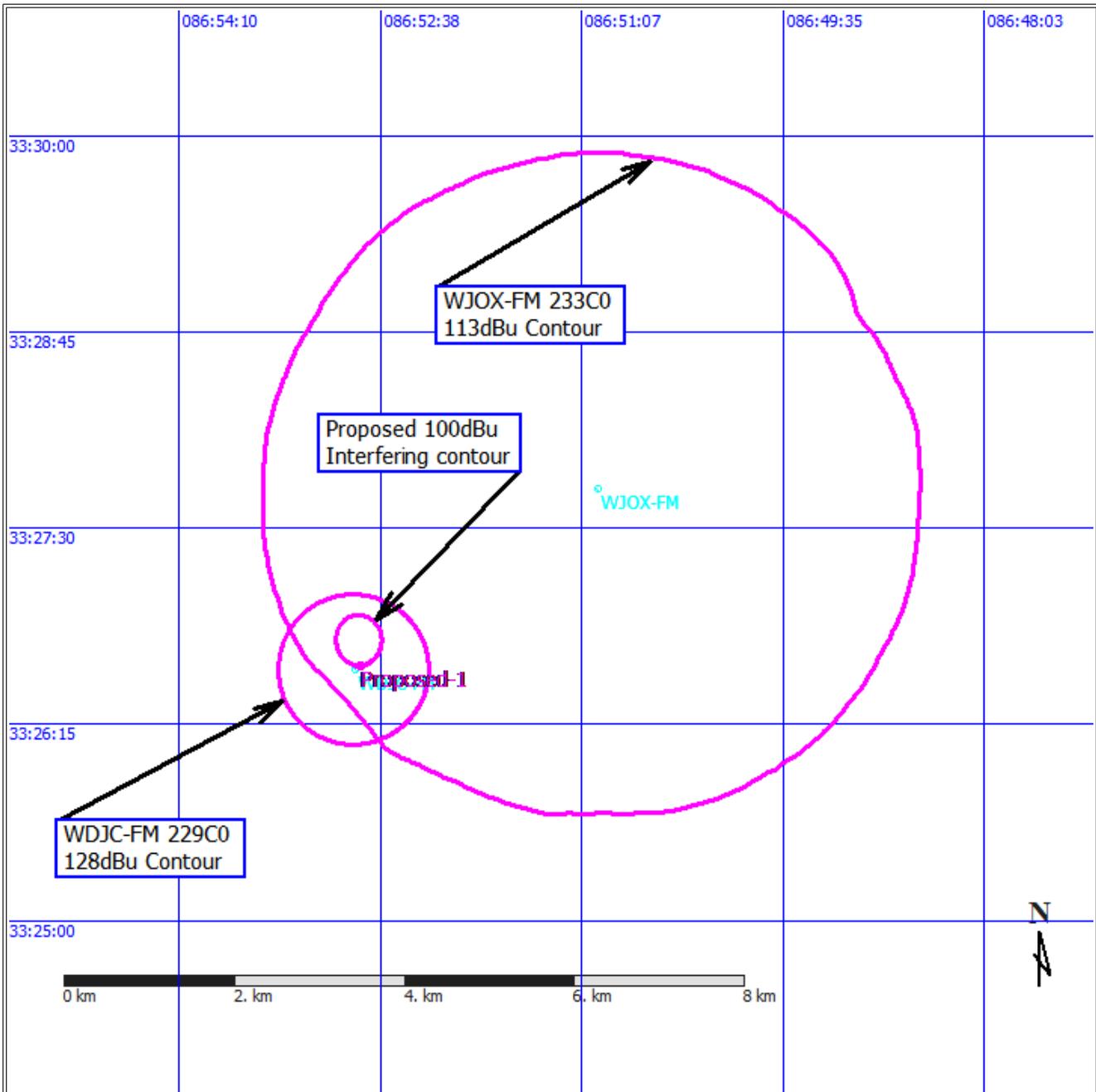
# Cochannel Close-Up Exhibit



## 2nd Adjacent Interference Exhibit



## Second Adjacent Closeup Exhibit



*The proposal's 100dBu interfering contour is within WDJC-FM's 128dBu contour and WJOX-FM's 113dBu contour.*

## RFR Exhibit

Ref Line #			
(1)	Rad Center Height	136.000	Meters AGL
(3)	Building Height	0.000	Meters AGL
(4)	Clearance Height	136.000	Meters AGL
(5)	Head Height	134.000	Meters AGL
(6)	Horizontal ERP	0.000	kW
(7)	Vertical ERP	0.070	kW
(8)	Total Power	0.070	kW
(9)	Power x 33.41	2.339	
(10)	line 5 squared	17956.000	
(11)	Line-9 / Line-10	0.000	
(12)	Percent Exposure	0.013	%