

# **Non-Interference Compliance K239AC, Garden City, ID FAC# 81218**

## **Description of Exhibit Contents**

This exhibit demonstrates that the proposed facility complies with contour overlap and interference protection provisions in all of the applicable rule sections and that this application for a construction permit is in full compliance with 47 C.F.R. § 74.1204.

**Let it be noted that should any actual real world interference occur, the applicant acknowledges that it will promptly suspend operation of this translator in accordance with 47 C.F.R. § 74.1203.**

Page 2 of this exhibit is an explanation of the method used to demonstrate compliance with contour overlap and interference provisions based on 47 C.F.R. § 74.1204(d), which states:

*[A]n 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 other factors as may be applicable.*

Page 3 of this exhibit contains the adjacent channel study created with FM Commander which shows all co-channel, 1<sup>st</sup> adjacent, 2<sup>nd</sup> adjacent and 3<sup>rd</sup> adjacent to the proposal.

Page 4 of this exhibit is a contour map demonstrating contour non-interference to 2<sup>nd</sup> adjacent K237HA.

Page 5 of this exhibit is a Google Earth aerial photo of the vicinity surrounding the proposed translator's tower site with the plotted zone of predicted interference.

### Compliance with 47 C.F.R. § 74.1204(d)

All authorized second and third adjacent stations with which the proposed translator has contour overlap are tabulated below. Column four show the station's signal level at the proposed translator's tower site, and column five gives the minimum value within the entire standard interfering contour of the proposed translator (100 dBμ for most classes, 94 for class B, 97 for class B1). The minimum second or third adjacent F(50,50) contour within the proposed translator's standard interfering contour was used to calculate the proposed translator's actual "worst-case" interfering contour.

<u>File Number</u>	<u>Call Sign</u>	<u>Contour at Tower</u>
<b>BLH-20061130AAV</b>	<b>KSRV-FM</b>	<b>87.9</b>
Minimum F(50,50) Contour of Adjacent Station Within Proposed Translator's Interfering Contour		<b>87.9</b>

FCC 02-244 at Section II.A.5 states that "when demonstrating that 'no actual interference will occur due to . . . other factors,' pursuant to Section 74.1204(d), an applicant may use the undesired-to-desired signal ratio method." The undesired-to-desired ratio for second and third adjacent stations required by § 74.1204(a) is 40 dB. Since the minimum protected contour strength within the proposed translator's standard interference contour is **87.9 dBμ**, this makes the proposed translator's worst-case interfering contour **127.9 dBμ**. By the free-space equation, this contour is calculated to extend a maximum of **33.57m** from the transmit antenna.

**Note: There are no structures within the zone of predicted interference , so in accordance with 47 C.F.R. § 74.1204(d) and the clarification provided by the FCC in the decision *Re: Living Way Ministries* (FCC 02-244), a lack of population has been demonstrated within the area of interference and this application is therefore in full compliance with 47 C.F.R. § 74.1204.**

**Antenna Manufacturer: BEXT**  
**Antenna Model: TFC2K**  
**CORAGL: 110 m**  
**Maximum ERP: 0.140 kW**  
**Interfering Contour: 127.9 dBμ**  
**Max Int. Contour Distance: 33.57 m**

Adjacent Channel Study

K239AC, Garden City, ID FAC# 81218

REFERENCE  
43 30 56.00 N.  
116 19 45.00 W.

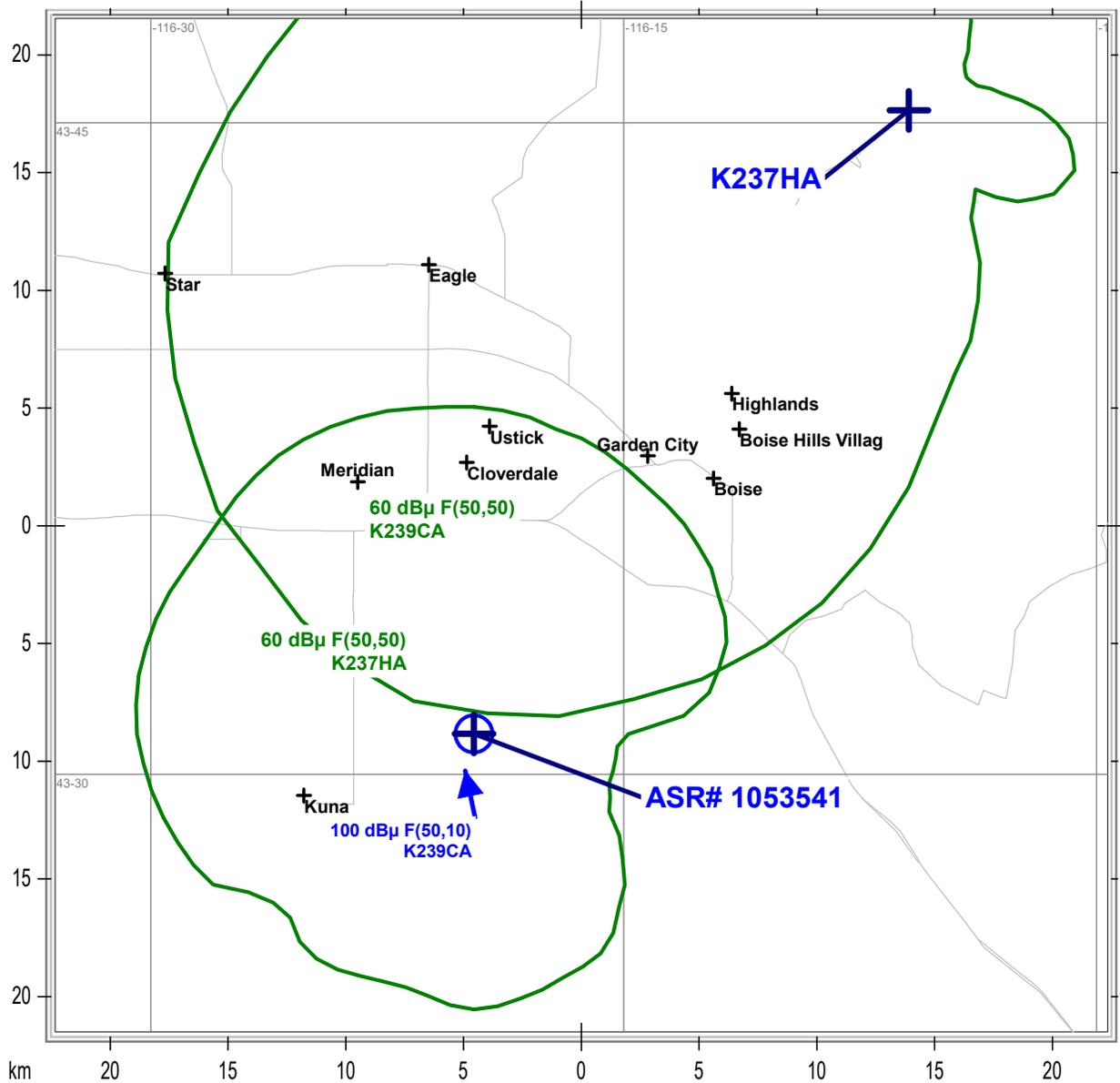
CH# 239D - 95.7 MHz, Pwr= 0.14 kW DA, HAAT= 89.0 M, COR= 945.2 M  
Average Protected F(50-50)= 10.59 km  
Standard Directional

DISPLAY DATES  
DATA 08-24-23  
SEARCH 08-29-23

CH CITY	CALL	TYPE STATE	ANT	AZI <--	DIST FILE #	LAT LNG	PWR(kw) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
241C Ontario	KSRV-FM	LIC ZCN OR		34.8 215.0	32.44 BLH20061130AAV	43 45 17.60 116 05 54.40	49.000 815	12.8 2203	98.0 Iliad Media Group Holdings	7.9	-66.4*
239D Garden City	K239AC	LIC _CN ID		58.0 238.1	17.35 BMLFT20071010ACO	43 35 53.60 116 08 47.40	0.028 308	1125	---Reference--- CSN International		
237D Nampa	K237HA	LIC DCN ID		34.7 214.9	32.39 0000162997	43 45 17.10 116 05 57.30	0.099	0.6 2192	31.3 Radio License Holding cbc,	20.1	0.1
239C1 Twin Falls	KEZJ-FM	LIC _CN ID		118.7 300.0	178.35 BLH20081203AEH	42 43 41.70 114 24 51.10	100.000 198	163.9 1370	65.4 Townsquare License, LLC	6.8	92.5
292C Homedale	KDBI-FM	LIC NCN ID		279.7 99.0	72.16 BMLH20161114ACM	43 37 14.50 117 12 38.50	100.000 313	0.0 1300	0.0 Radio Rancho, LLC	28.5R	43.7M

Terrain database is FCC NGDC 30 Sec , R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM  
In & Out distances between contours are shown at closest points. Reference zone= West Zone, Co to 3rd adjacent.  
All separation margins (if shown) include rounding.  
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, \_= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)  
"\*"affixed to 'IN' or 'OUT' values = site inside restricted contour.  
< = Station meets FCC minimum distance spacing for its class.  
Reference station has protected zone issue: AM tower

K237HA Contour Non-Interference Map



ASR# 1053541, 110m, 140W, channel 239, TFC2K, KAWZ

State Borders    Highways    Lat/Lon Grid

Map Scale: 1:290560    1 cm = 2.91 km    V|H Size: 43.09 x 44.71 km

CSN Scott Spencer

**Aerial Photo Zone Of Predicted Interference  
K239AC, Garden City, ID FAC# 81218  
August 29, 2023**

