

K282AV
Great Falls, MT
Proposed Minor Modification
of Licensed Translator Facility

Application Overview:

The Applicant proposes to modify BLFT-20121203ALQ using the following parameters:

Tech Box:

Channel:	283
Antenna Coordinates:	N47-27-52, W111-21-18 (NAD 27)
ASRN:	1265983
Tower Site Base AMSL:	1126 m
Overall Tower Height AGL:	27 m
COR AGL:	25 m
ERP:	0.09 kW
Directional Antenna:	No

Primary Station and Translator Protected Contour Relationship:

Exhibit 1 demonstrates that the proposed fill-in translator facility's protected contour is completely encompassed by the protected contour of the primary station being rebroadcast.

Interference Study (Adjacent Stations):

Exhibit 2 is a contour overlap study demonstrating that the proposed antenna site provides requisite contour protection towards all applications, authorizations, and permits pursuant to Section 74.1204 with the exception of the following:

- KIKF(FM) (BLH-20011210ABW) on its Second adjacent channel

Section 74.1204(a) states that “an application for an FM translator station will not be accepted for filing if the proposed operation would involve overlap of predicted field strength contours with any other station, including commercial and noncommercial educational FM stations, FM translators and Class D (secondary) noncommercial educational FM stations.” However, Section 74.1204(d) states, “the provisions of this section concerning prohibited overlap will not apply where the area of such overlap lies entirely over water. In addition, 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 other such factors as may be applicable.” Using the undesired-to-desired ratio method regarding interference to a second or third adjacent frequency, interference is predicted to occur where the translator’s undesired signal exceeds the protection station’s desired signal by more than 40 dB. The free space formula was used to determine the signal strength of the proposed facility, in dBu, at the antenna site of the adjacent station(s).

The signal strength of KIKF(FM) at the proposed site is calculated to be 82.7 dBu. As such, the interfering contour of the proposed facility is its F(50,10) 122.7 dBu contour which extends a maximum distance of 48.8 meters meters from the proposed tower.

Exhibit 2A includes a satellite view of the proposed translator site. There are no structures or public roads (other than the site access road to the tower) within the interference

contour predicted to be created by the translator. Therefore, due to the absence of “potential listeners” within the interference contour, no interference is expected to occur.

Proposed Translator to Combine into a Shared Antenna:

The signal of the proposed Translator is to be combined into an antenna currently authorized for use by the following station(s):

- K260AU Great Falls, MT (see 153558)
- K298BL Great Falls, MT (see 156910)

Therefore, the applicant agrees to make sufficient measurements to establish that the operation of the Translator is in compliance with the spurious emissions requirements of 47 C.F.R. Sections 73.317(b) through 73.317(d). All measurements will be made with all stations simultaneously into the combined antenna and will be submitted to the Commission along with the FCC Form 350 application for license.

Multiple Emitters in Close Proximity:

The antenna of the proposed Translator is also to be collocated on a tower currently authorized for use by the following station which does not utilize a directional antenna:

- KGFC(FM) Great Falls, MT (see 27118)

Downward Radiation Study (Measure Upon Construction)

Due to the fact that several existing and proposed emitters are located at or near the site, the applicant agrees to conduct a Radiofrequency Electromagnetic Field survey at the site upon construction of the proposed facility to ensure that any areas at ground level that exceed the

Commission's exposure guideline values are appropriately marked and fenced. The results of the survey will be provided with the application for license.

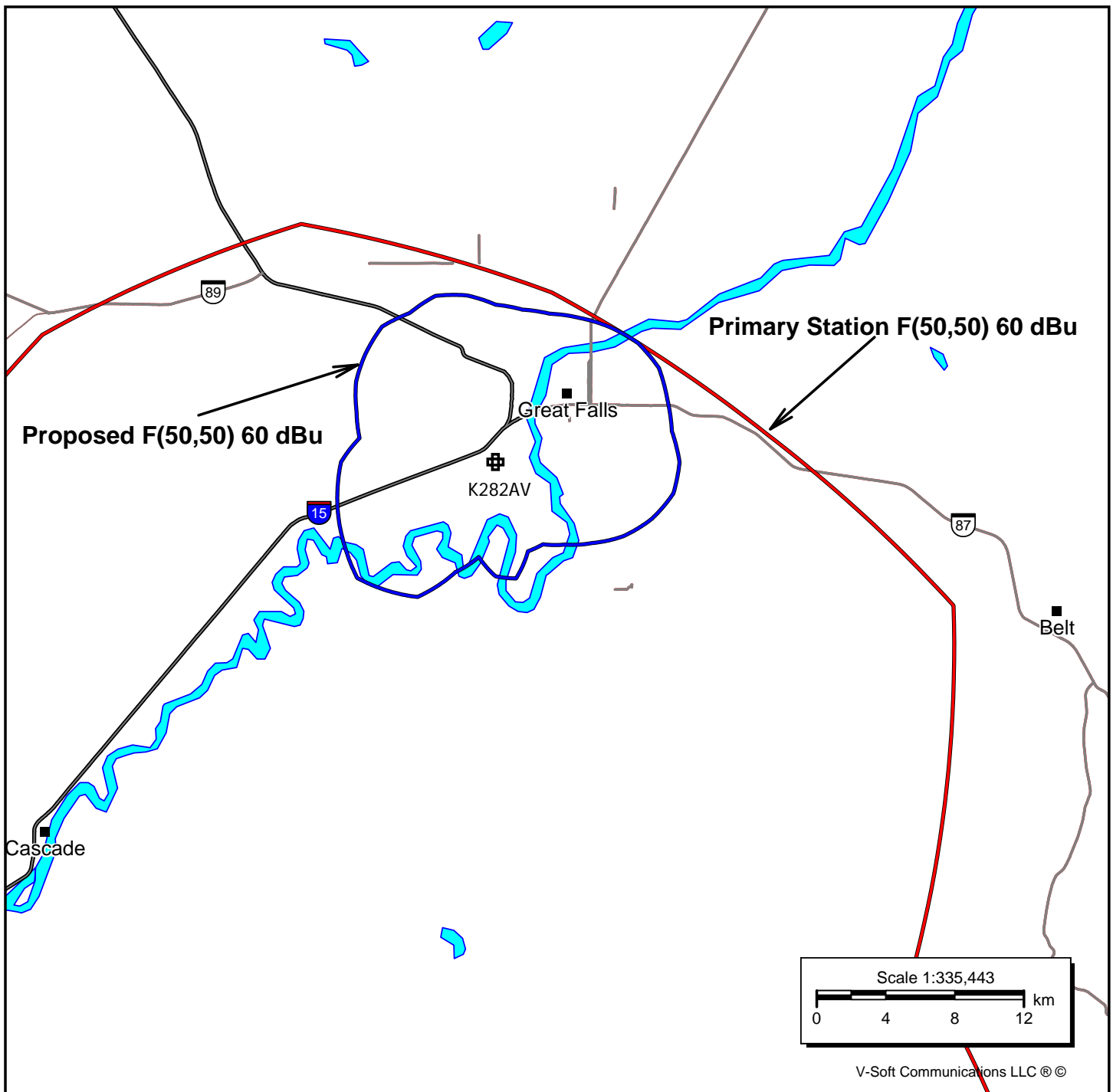
Even though the site will fully comply with the Uncontrolled Site Standards, access to the transmitting site will be restricted and appropriately marked with warning signs. When it becomes necessary for workers to ascend the tower, appropriate measures, such as reduction or shut down of power if necessary, shall be taken to ensure that the human exposure to radiofrequency radiation will not exceed the FCC guidelines.

Existing Tower:

The proposed facility is exempt from environmental processing because the facility is not located at a location specified in Section 1.1307(a)(1)-(8) of the Commission's Rules and since the tower in question already exists.

Exhibit 1

**Primary Station Protected Contour
vs.
Proposed Translator Protected Contour**



K282AV

Proposed
Channel: 283D
Frequency: 104.5 MHz
Latitude: 47-27-52 N
Longitude: 111-21-18 W
COR AGL Height: 25.0 m
COR AMSL Height: 1151.0 m
Base Elevation: 1126.0 m
COR HAAT: 0.0 m
ERP: 0.09 kW
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None

KIMO

BLH20111017AAN
Channel: 297C
Frequency: 107.3 MHz
Latitude: 46-49-30 N
Longitude: 111-42-13 W
COR AGL Height: 19.0 m
COR AMSL Height: 2376.0 m
Base Elevation: 2357.0 m
COR HAAT: 659.0 m
ERP: 86.00 kW
Horiz. Pattern: Directional
Vert. Pattern: No
Prop Model: None

Exhibit 2

Section 74.1204 Interference Tabulations

K282AV Great Falls, MT on Channel 283 Section 74.1204 Contour Overlap Study CH# 283D - 104.5 MHz, Pwr= 0.09 kW, HAAT= 0.0 M, COR= 1151 M Average Protected F(50-50)= 5.49 km Omni-directional										
REFERENCE									DISPLAY DATES	
47 27 52.0 N.									DATA 03-17-13	
111 21 18.0 W.									SEARCH 03-24-13	
CH CITY	CALL	TYPE ANT STATE	AZI <--	DIST FILE #	LAT LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
285C Cascade	KIKF	LIC_CX MT	142.5 322.7	42.74 BLH20011210ABW	47 09 34.0 111 00 39.0	94.000 621	15.3 2179	96.4 Staradio Corp.	21.4	-54.3*
283D Helena	K283BP	CP_C_ MT	200.5 20.2	75.84 BMPFT20120730ABF	46 49 30.0 111 42 13.0	0.250	86.0 2369	29.1 The Montana Radio Company,	-17.1*	23.4
282D Great Falls	K282AV	LIC_V_ MT	0.0 0.0	0.00 BLFT20121203ALQ	47 27 52.0 111 21 18.0	0.002	4.4 1131	3.1 The Montana Radio Company,	-13.5*	-15.9*
283C0 Stevensville	KKVU	RSV-A ____ MT	250.5 68.6	211.83	46 48 06.0 113 58 22.0	100.000 450	176.0 1729	74.9 Spanish Peaks Broadcasting	26.2	104.9
283C0 Stevensville	KKVU	LIC_C_ MT	250.5 68.6	211.83 BLH20050718AFZ	46 48 06.0 113 58 22.0	15.000 635	154.1 1914	67.7 Spanish Peaks Broadcasting	48.1	112.0
281C3 East Helena	KHKR-FM	CP_CX MT	213.4 32.9	92.50 BPH20121214ABM	46 46 06.0 112 01 21.6	5.000 207	3.7 1515	40.3 Ccr-helena l v, Llc	79.4	51.5
281C3 East Helena	KHKR-FM	LIC_CN MT	213.5 33.0	92.41 BLH19951201KD	46 46 11.0 112 01 25.0	5.000 199	3.6 1503	39.2 Ccr-helena l v, Llc	79.4	52.6

Terrain database is NGDC 30 SEC , R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM
 Contour distances are on direct line to and from reference station. Reference 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 protected contour.

Exhibit 2B

**Satellite Picture of
F(50,10) Interfering Contour**



Google Earth Pro

feet | 100
meters | 50

