

Technical Report
Long Form Application for New Translator
BNPFT-20030313ATS

This technical report has been developed in support of a long form application for the new translator, FCC file no. BNPFT-20030313ATS, at Buffalo, WY. A change to the intermediate frequency (IF) channel from 293 to channel 240, following CFR §74.1233(a)(1), and change in tower site is requested. The facility will serve as a fill-in for KLQQ 285C0 at Sheridan, WY, facility I.D. 165310.

The following exhibits are provided in support of the form 349 application:

- E-1 Channel Overlap Study
- E-2 60 dBu Coverage within KLQQ
- E-3 Enhanced Plot to Show Overlap to 652158.AP

Antenna System:

The translator will be located at an existing tower at a COR AGL of 18 meters, using a two bay Shively 6812B half wave-spaced nondirectional antenna, and operate at 0.250 kW ERP at coordinates:

44-36-09N 106-55-51W (NAD 27).

Exhibit E-2 shows the 60 dBu contour plot will be completely contained within the 60 Bu contour of KLQQ, and exhibit E-3 shows an enhanced plot showing overlap to the short form application facility's 60 dBu contour.

Charles M. Anderson Associates

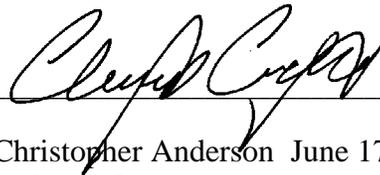
Broadcast Consultants
1519 Euclid Avenue
Bowling Green, KY 42103

RF Exposure Calculation:

The RF contribution from the 0.250 kW facility was evaluated using the Commission's FMMODEL program. The RF contribution from a height of 2 meters above ground was calculated to be $5.5 \mu\text{Watts/cm}^2$ at a distance of 29 meters from the tower, which is well below 5% of the $200 \mu\text{Watts/cm}^2$ permissible for general public exposure, allowing exclusion from consideration.

Conclusion:

It is concluded that the minor modification of the translator facility 652158 complies with all Commission policies and rules.



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E-1 Overlap Study

REFERENCE
44 36 09.0 N.
106 55 51.0 W.

CH# 240D - 95.9 MHz, Pwr= 0.25 kW, HAAT= 330.0 M, COR= 1961 M
Average Protected F(50-50)= 23.62 km
Omni-directional

DISPLAY DATES
DATA 06-14-08
SEARCH 06-17-08

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*
241C1 World	KKLX	CP WY	_CX	230.8 50.2	95.22 BPH20080116ABE	44 03 31.0 107 51 12.0	80.000 144	77.7 1460	49.8 Legend	10.43 Communications	35.31 Of W
241C2 World	KKLX	LIC WY	_CN	231.7 51.1	95.31 BLH19860602KF	44 04 06.0 107 51 57.0	50.000 116	66.9 1433	42.1 Legend	21.34 Communications	43.03 Of W
293D Buffalo	652158	APP WY	_C_	146.0 326.2	33.90 BNPFT20030313ATS	44 20 58.0 106 41 34.0	0.250	82.6 1449	25.0 Lovcom, Inc.	10.0R	23.9M

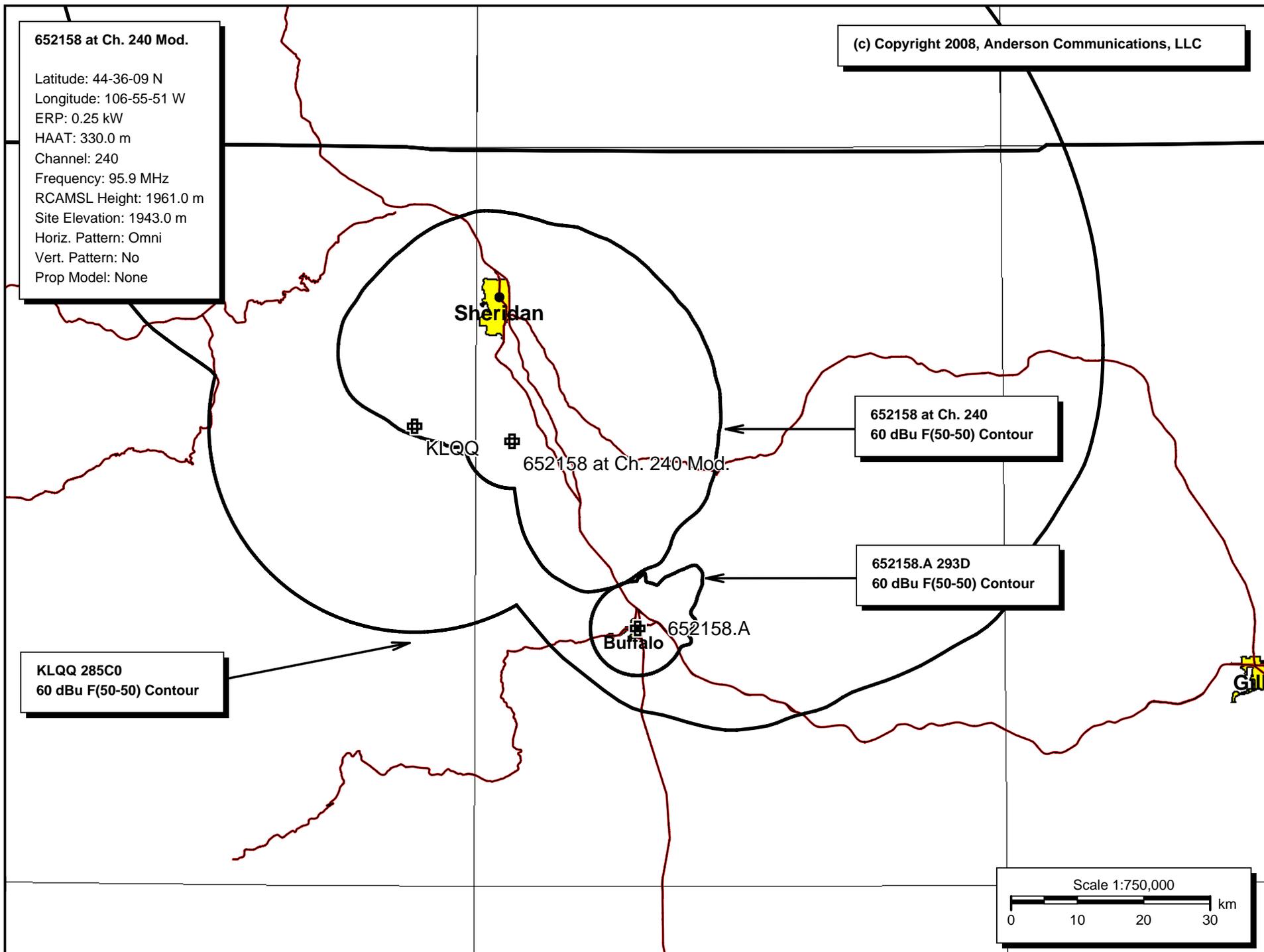
Terrain database is USGS 03 SEC Distance + R = 73.215 or FCC Spacings in KM, Distance + M = Margin in KM
Contour distances are on direct line to and from reference station. Reference zone = 2. With 3rd Adj Channels.
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)
"*"affixed to 'IN' or 'OUT' values = site inside protected contour.

E-2 New Translator at Ch. 240 60 dBu Contour Plot

652158 at Ch. 240 Mod.

Latitude: 44-36-09 N
Longitude: 106-55-51 W
ERP: 0.25 kW
HAAT: 330.0 m
Channel: 240
Frequency: 95.9 MHz
RCAMSL Height: 1961.0 m
Site Elevation: 1943.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None

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E-3 New Translator 60 dBu Overlap Enhanced Plot

652158 at Ch. 240 Mod.

Latitude: 44-36-09 N
Longitude: 106-55-51 W
ERP: 0.25 kW
HAAT: 330.0 m
Channel: 240
Frequency: 95.9 MHz
RCAMSL Height: 1961.0 m
Site Elevation: 1943.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None

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652158 at Ch. 240
60 dBu F(50-50) Contour

652158.A 293D
60 dBu F(50-50) Contour

60 dBu F(50-50) Contour
Overlap of Current and Proposed Facilities

