

**Engineering Statement
In Support of
Station KWSU-DT, Pullman, WA
DTV Maximization**

This engineering statement is in support of Washington State University's request for its maximization application for its KWSU-DT station. The proposed KWSU-DT facility meets the interference requirements because the proposed facility would not cause impermissible interference, i.e., more than 0.5 percent new interference, to other stations.

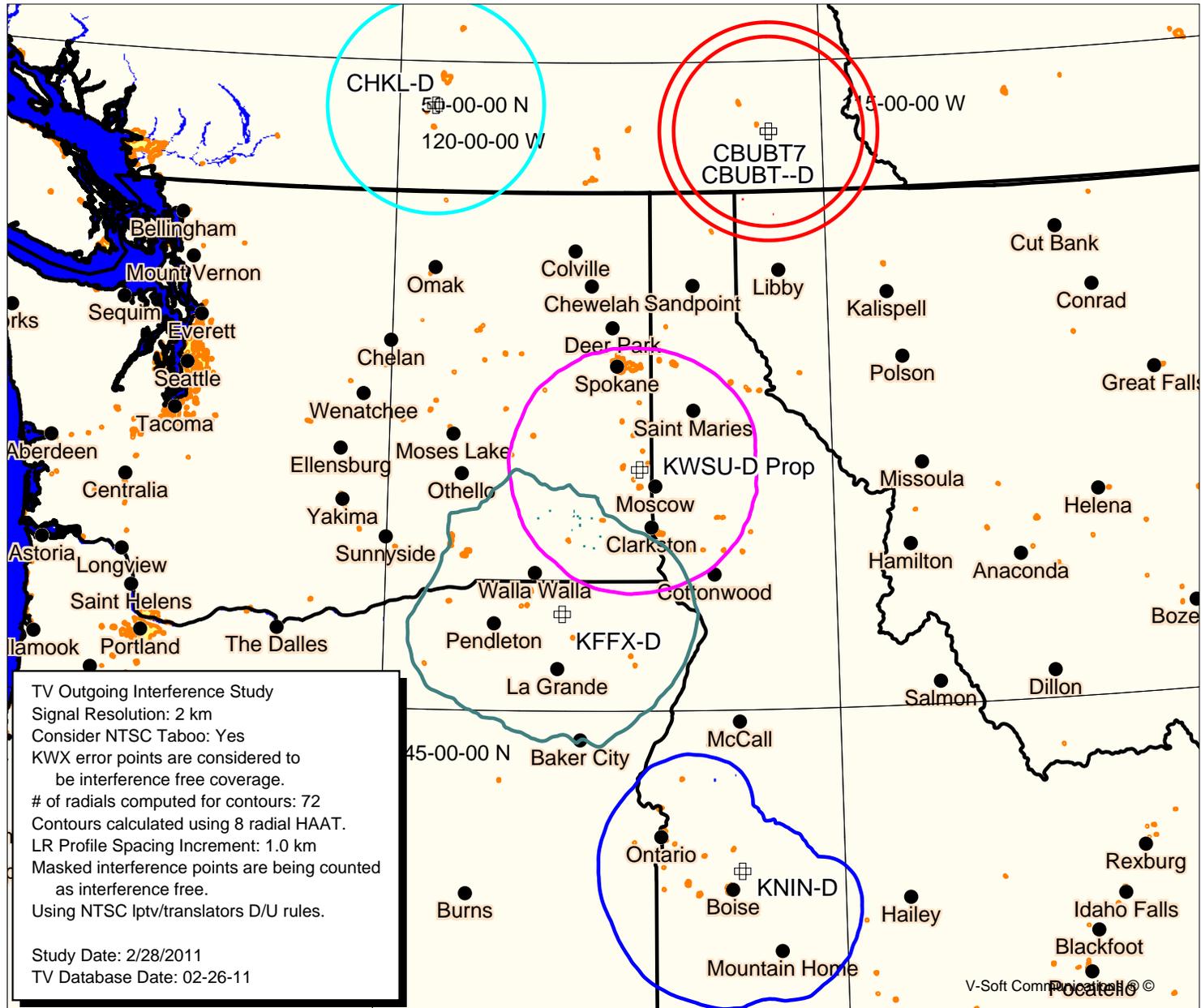
This application for minor modification to the KWSU-TV Construction Permit file # BMPEDT-20080611ACA requests only a reduction in the previously requested 35 kW ERP to 23 kW ERP.

As shown in the attached interference study, the proposed increase in operating power will cause interference to 7 (0.002%) of the 326,086 viewers within the KFFX-D coverage area. Stations KNIN-D and Canadian CBUB-D, CBUB-T AND CHKL-D were also considered in this study but showed no interference. The total of all outgoing interference to all analog and digital TV stations is 0.002%.

The applicant believes that this application for modification to the previously granted maximization application meets all of the Commission's requirements .

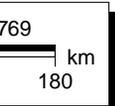
KWSU-D Prop
 BMPEDT20080611ACA
 Latitude: 46-51-43 N
 Longitude: 117-10-26 W
 ERP: 23.00 kW
 Channel: 10
 Frequency: 195.0 MHz
 AMSL Height: 1167.0 m
 Elevation: 1029.33 m
 HAAT: 408.0 m
 Horiz. Pattern: Omni
 Vert. Pattern: Yes
 Elec Tilt: 0.0

-  KWSU-D Prop
-  CBUBT7
-  CBUBT--D
-  CHKL-D
-  KNIN-D
-  KFFX-D



TV Outgoing Interference Study
 Signal Resolution: 2 km
 Consider NTSC Taboo: Yes
 KWX error points are considered to be interference free coverage.
 # of radials computed for contours: 72
 Contours calculated using 8 radial HAAT.
 LR Profile Spacing Increment: 1.0 km
 Masked interference points are being counted as interference free.
 Using NTSC lptv/translators D/U rules.

Study Date: 2/28/2011
 TV Database Date: 02-26-11



All Analog contours shown are F(50,50) 56 dBu
 All Digital contours shown are F(50,90) 36 dBu

Interference Cell Report

Reference Station: KWSU-D.C (10)

Population Database: 2000 US Census (PL)

Call Letters	Population (people)	Ix-Margin (dB)	Reference Dist(km)	Bear(deg)	Transmitter Dist(km)	Bear(deg)
CBUBT--D (10)	0	9.3	248.6	21.0	62.1	202.6
CBUBT--D (10)	0	0.8	247.3	27.9	71.3	178.3
KNIN-D (10)	0	0.6	273.8	166.6	81.7	344.2
KNIN-D (10)	0	3.0	274.5	162.8	82.7	356.8
KFFX-D (11)	0	1.5	96.4	244.9	85.1	345.6
KFFX-D (11)	0	3.0	84.6	245.5	89.0	353.0
KFFX-D (11)	4	0.6	77.6	228.8	73.0	6.2
KFFX-D (11)	2	1.1	68.9	235.3	84.9	6.5
KFFX-D (11)	0	0.3	66.6	238.0	88.9	6.2
KFFX-D (11)	0	3.5	66.1	233.6	85.4	8.8
KFFX-D (11)	0	6.6	69.9	227.5	77.9	10.9
KFFX-D (11)	1	3.8	66.0	231.3	83.7	10.1
KFFX-D (11)	0	6.5	81.0	216.6	61.5	17.2
KFFX-D (11)	0	7.2	58.4	224.9	86.2	16.9
KFFX-D (11)	0	0.5	77.9	210.6	62.8	25.3
KFFX-D (11)	0	10.9	43.1	236.8	104.7	16.7
KFFX-D (11)	0	3.6	66.8	211.1	73.9	25.6

TV Interference Culling Table

Reference station information:

Latitude: 46-51-43 N
Longitude: 117-10-26 W
Channel: 10
Type: Digital

Call	City	State	Chan	Dist	Type	Lic
CBUBT7	Cranbrook	BC	10	310.7	A	LI
CHKLTV	Penticton	BC	10	358.3	A	LI
KNIN-D	Caldwell	ID	10	355.4	D	LI
KFFX-D	Pendleton	OR	11	140.6	D	LI

V-Soft Communications Population Report

Contour Parameters:

Type: FCC Contour

F(50-90) Cutoff: 36.00 dBu

Population Database: 2000 US Census (PL)

Primary Terrain: V-Soft US 3 Arc-Second Database

Transmitter Information:

Call Letters: KFFX-D

File Number: BLCDT20090616ABE

Latitude: 45-44-51 N

Longitude: 118-02-11 W

ERP: 60.00 kW

Channel: 11

Frequency: 201.0 MHz

AMSL Height: 1740.0 m

Elevation: 1658.699 m

HAAT: 472.0 m

Horiz. Antenna Pattern: Directional

Vert. Elevation Pattern: Yes

Electrical Beam Tilt: 0.0

Total Population Within Contour: 326,086

Total Housing Units Within Contour: 0

Total Area Within Contour: 40760.77 sq. km