

Engineering Statement
University of Wyoming
11/2/2021
Dubois, WY

The applicant is applying for a new NCE FM Construction Permit.

Facility ID No: 762696

Geographic Coordinates: N. Lat. 43-29-59.0, W. Long. 109-41-20.0 (NAD 83)

Elevation at the site: 3011.4 m

Channel number: 209 (89.7 MHz)

Antenna height C.O.R. above ground: 20.0 m

Proposed Antenna COR: 3031.4 m AMSL, HAAT: 392.7 m

Tower height above ground: 24.4 m

Antenna Type: ERI MP-3E

ERP: 6.0 kW, circularly polarized

Page #2: Coverage map showing the 60 dBu contour. As shown on the map, the principal city of Dubois, WY is fully covered by the principal city contour.

Page #3: Distance to contour and HAAT table for the eight cardinal radials.

Pages #4 through #17: Channel study using V-Soft Communications, FMCommander program. This study shows that the proposed facilities will not cause, nor receive, contour overlap interference as per section 73.509 of the Commission's rules.

Page # 18 through #21: RF hazard: The proposed facility would be the sole FM Broadcast facility at this site. Utilizing the FCC FM Model shows that the power density from the proposed 3-bay type #3 antenna with an effective radiated power of 6.0 kW and COR of 20 m A.G. would produce $0.130341732401 \mu\text{W}.\text{cm}^2$ at 9m from the tower base.

Page #22: Description of how the contour-to-contour channel study should be read and the abbreviations used therein.

Page #23: Site map showing the proposed Dubois, WY site at the proposed coordinates.

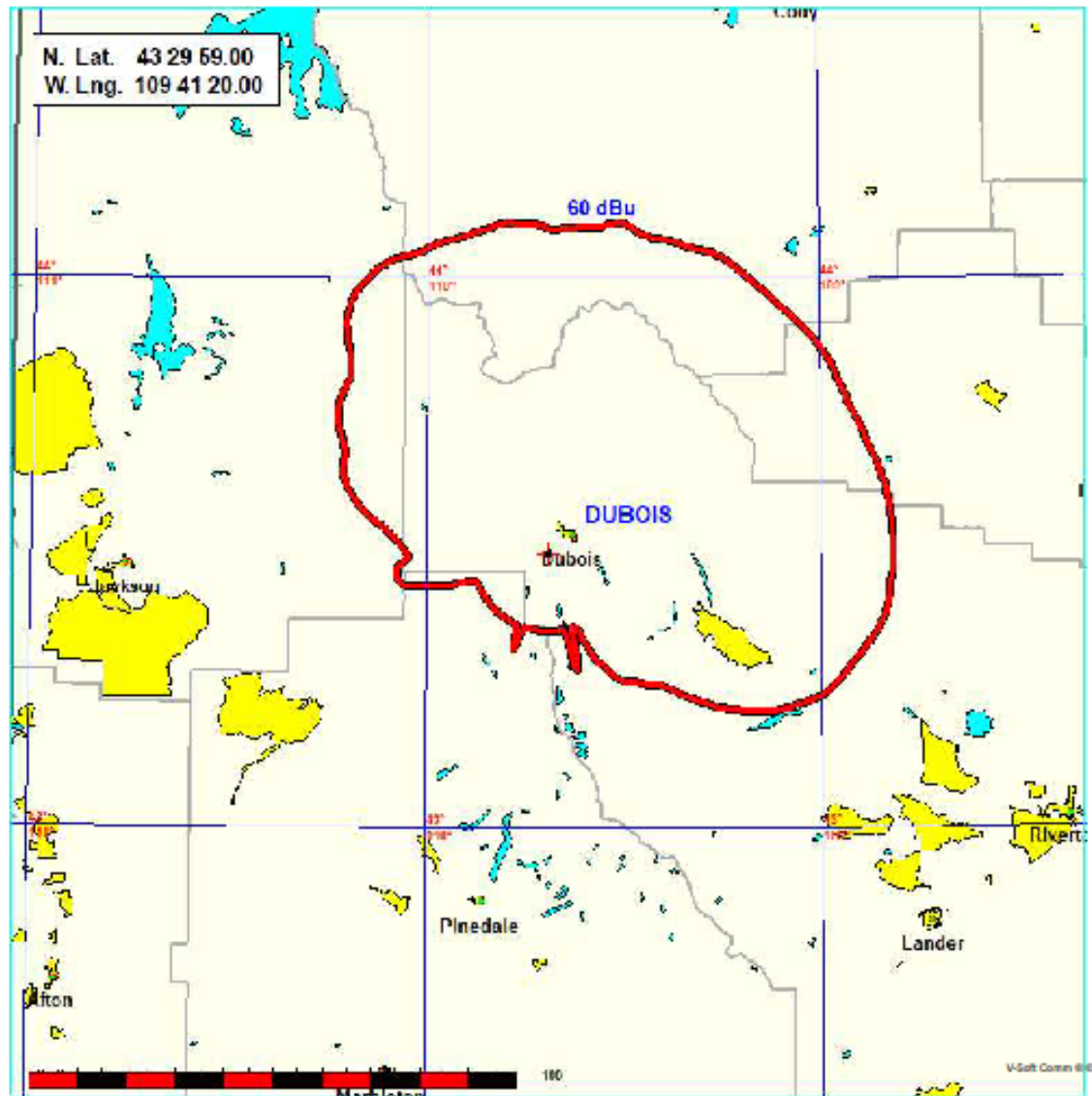
Page #24: Service Count Population report.

Page #25: Exhibit stating the qualifications of the preparer.

Dubois, WY
University Of Wyoming

Coverage Study - GLOBE 30 Sec
11-04-2021

DUBOIS CH209 C2, 6.0 kW, 392.7m HAAT, 3031.4m COR AMSL
Service Contour = 60 dBu.



Total Area within 60dBu Contour: 8088.9 km

REFERENCE		Dubois, WY University Of Wyoming								DISPLAY DATES	
43 29 59.00 N.		CH# 209C2 - 89.7 MHz, Pwr= 6 kW, HAAT= 392.7 M, COR= 3031.4 M								DATA 10-25-21	
109 41 20.00 W.		Average Protected F(50-50)= 51.03 km								SEARCH 11-04-21	
		Omni-directional									

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*
210C3 Alta		---		280.6 99.4	135.77	43 42 41.90 111 20 59.31	0.888 505	69.7 2594	44.9 User	20.8	26.6
210A Pinedale	KWCN	LIC _CN WY		194.7 14.6	75.34 BLED20120928ANQ	42 50 38.70 109 55 25.50	0.075 131	13.3 2353	9.0 Wcn, Inc.	41.4	36.7
206C3 Jackson	KHOL	LIC _CN WY		267.5 86.8	85.97 BLED20080311ABJ	43 27 39.70 110 45 11.70	2.200 336	1.6 2489	12.3 Jackson Hole Community Rad	46.2	54.9
212C2 Jackson	KUNJ	LIC _CN WY		267.5 86.8	85.97 BLED19921207KC	43 27 39.70 110 45 11.70	3.000 337	1.6 2489	13.2 University Of Wyoming	46.2	53.7

Terrain database is GLOBE 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= - Zone 2, 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)
« = Station meets FCC minimum distance spacing for its class.

Alta (Proposed) 210 C3 Dom - B1 Int, 0.888 kW 505 m
Alta, WY 2594.5 m COR AMSL -
Lat = 43 42 41.90, Lng = 111 20 59.31 - NAD 83
User
Fac ID# 762732
Dist = 136.15 km, Azi = 280.6°, Rev Azi = 99.4°

Reference's Greatest Overlaps: (In = 20.82, Out = 26.60)
Toward Ref: HAAT = 638.7m, 0.888 kW
Toward Ref: 60 dBu Protected = 44.9 km, Int = 67.68 km
Direct line Ref. Protected Contour = 36.2 km, Int = 53.88 km

Dubois, WY
University Of Wyoming

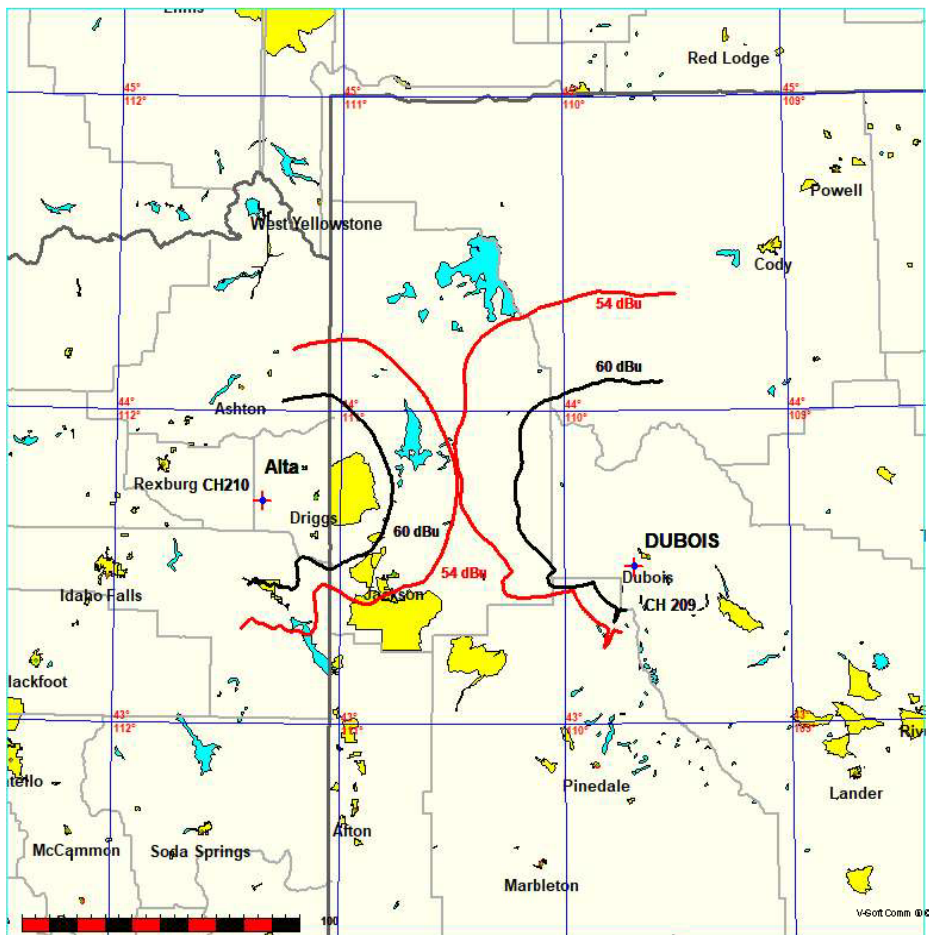
FMCommander Single Allocation Study - 11-04-2021 - GLOBE 30 Sec
DUBOIS's Overlaps (In= 31.87 km, Out= 37.03 km)

DUBOIS CH 209 C2

Lat= 43 29 59.00, Lng= 109 41 20.00
6.0 kW 392.7 m HAAT, 3031.4 m COR
Prot = 60 dBu, Intef = 54 dBu

Alta CH 210 C3

Lat= 43 42 41.90, Lng= 111 20 59.31
0.888 kW 504.7 m HAAT, 2594.5 m COR
Prot = 60 dBu, Intef = 54 dBu



11-04-2021

Terrain Data: GLOBE 30 Sec

FMOver Analysis

DUBOIS

Alta

Channel = 209C2

Max ERP = 6 kW

RCAMSL = 3031.4 m

N. Lat. 43 29 59.00

W. Lng. 109 41 20.00

Protected

60 dBu

Channel = 210C3

Max ERP = 0.888 kW

RCAMSL = 2594.473 m

N. Lat. 43 42 41.90

W. Lng. 111 20 59.31

Interfering

54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
221.0	006.0000	-0126.3	015.8	105.5	000.8880	0623.3	128.5	35.93	
222.0	006.0000	-0119.3	015.8	105.4	000.8880	0623.6	128.3	36.00	
223.0	006.0000	-0108.9	015.8	105.4	000.8880	0623.8	128.0	36.07	
224.0	006.0000	-0099.2	015.8	105.3	000.8880	0624.1	127.8	36.14	
225.0	006.0000	-0094.2	015.8	105.3	000.8880	0624.3	127.5	36.21	
226.0	006.0000	-0094.1	015.8	105.2	000.8880	0624.6	127.3	36.28	
227.0	006.0000	-0093.4	015.8	105.1	000.8880	0624.8	127.0	36.35	
228.0	006.0000	-0090.2	015.8	105.1	000.8880	0625.1	126.8	36.42	
229.0	006.0000	-0085.4	015.8	105.0	000.8880	0625.4	126.6	36.48	
230.0	006.0000	-0080.1	015.8	104.9	000.8880	0625.7	126.4	36.55	
231.0	006.0000	-0074.4	015.8	104.9	000.8880	0625.9	126.1	36.62	
232.0	006.0000	-0067.8	015.8	104.8	000.8880	0626.2	125.9	36.68	
233.0	006.0000	-0062.3	015.8	104.7	000.8880	0626.4	125.7	36.75	
234.0	006.0000	-0059.0	015.8	104.7	000.8880	0626.7	125.5	36.81	
235.0	006.0000	-0057.2	015.8	104.6	000.8880	0626.9	125.2	36.87	
236.0	006.0000	-0055.6	015.8	104.5	000.8880	0627.2	125.0	36.94	
237.0	006.0000	-0053.4	015.8	104.4	000.8880	0627.5	124.8	37.00	
238.0	006.0000	-0050.5	015.8	104.3	000.8880	0627.7	124.6	37.06	
239.0	006.0000	-0047.5	015.8	104.2	000.8880	0628.0	124.4	37.12	
240.0	006.0000	-0045.7	015.8	104.2	000.8880	0628.2	124.2	37.18	
241.0	006.0000	-0044.1	015.8	104.1	000.8880	0628.4	124.0	37.23	
242.0	006.0000	-0041.2	015.8	104.0	000.8880	0628.6	123.8	37.29	
243.0	006.0000	-0036.9	015.8	103.9	000.8880	0628.8	123.7	37.34	
244.0	006.0000	-0032.0	015.8	103.8	000.8880	0629.1	123.5	37.40	
245.0	006.0000	-0026.5	015.8	103.7	000.8880	0629.2	123.3	37.45	
246.0	006.0000	-0018.3	015.8	103.6	000.8880	0629.4	123.1	37.50	
247.0	006.0000	-0007.5	015.8	103.5	000.8880	0629.6	123.0	37.55	
248.0	006.0000	0004.4	015.8	103.4	000.8880	0629.8	122.8	37.60	
249.0	006.0000	0016.5	015.8	103.3	000.8880	0630.0	122.6	37.65	
250.0	006.0000	0028.0	015.8	103.2	000.8880	0630.1	122.5	37.70	
251.0	006.0000	0038.7	018.0	103.6	000.8880	0629.3	120.5	38.25	
252.0	006.0000	0050.6	020.7	104.2	000.8880	0628.0	118.0	38.93	
253.0	006.0000	0061.6	022.7	104.6	000.8880	0626.8	116.1	39.45	
254.0	006.0000	0072.8	024.4	104.9	000.8880	0625.9	114.5	39.90	
255.0	006.0000	0084.0	026.1	105.1	000.8880	0624.9	112.8	40.34	
256.0	006.0000	0096.0	027.8	105.4	000.8880	0623.8	111.1	40.79	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
257.0	006.0000	0107.1	029.2	105.5	000.8880	0623.1	109.6	41.19
258.0	006.0000	0116.5	030.3	105.6	000.8880	0622.8	108.4	41.51
259.0	006.0000	0122.3	031.0	105.5	000.8880	0623.3	107.6	41.73
260.0	006.0000	0124.9	031.3	105.3	000.8880	0624.2	107.1	41.88
261.0	006.0000	0125.1	031.3	105.0	000.8880	0625.3	106.8	41.96
262.0	006.0000	0124.2	031.2	104.8	000.8880	0626.3	106.7	42.01
263.0	006.0000	0124.8	031.2	104.5	000.8880	0627.2	106.4	42.09
264.0	006.0000	0126.0	031.4	104.3	000.8880	0627.9	106.1	42.19
265.0	006.0000	0123.5	031.1	103.9	000.8880	0628.7	106.1	42.19
266.0	006.0000	0115.5	030.2	103.5	000.8880	0629.6	106.8	42.03
267.0	006.0000	0107.7	029.3	103.1	000.8880	0630.3	107.5	41.84
268.0	006.0000	0103.1	028.7	102.7	000.8880	0630.8	107.9	41.74
269.0	006.0000	0103.6	028.8	102.5	000.8880	0631.2	107.7	41.80
270.0	006.0000	0106.5	029.1	102.3	000.8880	0631.5	107.3	41.93
271.0	006.0000	0109.3	029.5	102.0	000.8880	0631.9	106.8	42.06
272.0	006.0000	0112.2	029.8	101.8	000.8880	0632.4	106.4	42.18
273.0	006.0000	0115.0	030.2	101.6	000.8880	0632.9	105.9	42.30
274.0	006.0000	0120.5	030.8	101.3	000.8880	0633.4	105.3	42.48
275.0	006.0000	0126.0	031.4	101.1	000.8880	0633.9	104.6	42.67
276.0	006.0000	0132.1	032.0	100.8	000.8880	0634.5	103.9	42.87
277.0	006.0000	0138.7	032.8	100.6	000.8880	0635.2	103.1	43.09
278.0	006.0000	0145.4	033.6	100.3	000.8880	0635.9	102.3	43.32
279.0	006.0000	0151.8	034.3	099.9	000.8880	0636.9	101.5	43.54
280.0	006.0000	0161.9	035.4	099.6	000.8880	0638.0	100.4	43.86
281.0	006.0000	0175.9	036.8	099.3	000.8880	0639.3	098.9	44.28
282.0	006.0000	0190.4	038.1	098.9	000.8880	0640.9	097.7	44.64
283.0	006.0000	0204.4	039.2	098.4	000.8880	0642.6	096.7	44.98
284.0	006.0000	0217.6	040.2	098.0	000.8880	0644.6	095.7	45.28
285.0	006.0000	0228.5	040.9	097.5	000.8880	0646.6	095.0	45.52
286.0	006.0000	0240.0	041.7	097.0	000.8880	0648.9	094.4	45.75
287.0	006.0000	0252.5	042.5	096.5	000.8880	0651.4	093.7	45.99
288.0	006.0000	0265.1	043.3	096.0	000.8880	0654.1	093.0	46.23
289.0	006.0000	0276.5	044.0	095.4	000.8880	0656.5	092.5	46.44
290.0	006.0000	0284.9	044.5	094.9	000.8880	0658.8	092.1	46.58
291.0	006.0000	0292.0	045.0	094.3	000.8880	0660.9	091.9	46.69
292.0	006.0000	0297.6	045.3	093.8	000.8880	0662.8	091.8	46.75
293.0	006.0000	0302.5	045.6	093.3	000.8880	0664.7	091.7	46.79
294.0	006.0000	0305.4	045.8	092.8	000.8880	0666.4	091.8	46.79
295.0	006.0000	0308.5	046.0	092.3	000.8880	0668.2	091.9	46.78
296.0	006.0000	0314.3	046.4	091.7	000.8880	0670.1	091.9	46.82
297.0	006.0000	0322.6	046.9	091.1	000.8880	0672.1	091.8	46.89
298.0	006.0000	0334.4	047.6	090.4	000.8880	0674.3	091.5	47.03
299.0	006.0000	0348.4	048.5	089.7	000.8880	0676.7	091.1	47.18
300.0	006.0000	0361.8	049.3	089.0	000.8880	0679.3	090.8	47.32
301.0	006.0000	0373.3	050.0	088.3	000.8880	0681.5	090.6	47.39
302.0	006.0000	0383.7	050.5	087.7	000.8880	0683.0	090.6	47.42
303.0	006.0000	0396.1	051.2	087.0	000.8880	0684.7	090.6	47.46
304.0	006.0000	0407.9	051.9	086.3	000.8880	0686.3	090.6	47.49
305.0	006.0000	0416.7	052.3	085.6	000.8880	0687.9	090.7	47.46
306.0	006.0000	0422.9	052.7	085.0	000.8880	0689.4	091.1	47.38
307.0	006.0000	0428.7	053.0	084.5	000.8880	0690.8	091.4	47.29

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)		Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
308.0	006.0000	0435.2	053.3		083.9	000.8880	0692.2	091.8	47.20
309.0	006.0000	0439.9	053.6		083.4	000.8880	0693.4	092.2	47.07
310.0	006.0000	0443.5	053.8		082.9	000.8880	0694.5	092.8	46.92
311.0	006.0000	0448.1	054.1		082.3	000.8880	0695.5	093.3	46.78
312.0	006.0000	0456.0	054.5		081.8	000.8880	0696.4	093.7	46.67
313.0	006.0000	0468.6	055.2		081.0	000.8880	0696.8	094.0	46.59
314.0	006.0000	0486.8	056.3		080.2	000.8880	0696.4	094.1	46.55
315.0	006.0000	0507.3	057.5		079.2	000.8880	0695.0	094.1	46.51
316.0	006.0000	0527.5	058.8		078.2	000.8880	0692.8	094.3	46.44
317.0	006.0000	0550.7	060.1		077.2	000.8880	0690.2	094.4	46.35
318.0	006.0000	0580.5	061.5		076.1	000.8880	0687.2	094.6	46.25
319.0	006.0000	0612.1	062.7		075.2	000.8880	0684.4	095.0	46.09
320.0	006.0000	0639.3	063.7		074.3	000.8880	0682.3	095.5	45.90
321.0	006.0000	0660.9	064.5		073.6	000.8880	0680.7	096.2	45.67
322.0	006.0000	0679.3	065.2		073.0	000.8880	0679.5	097.0	45.43
323.0	006.0000	0694.6	065.7		072.5	000.8880	0678.5	097.9	45.16
324.0	006.0000	0707.1	066.1		072.0	000.8880	0677.7	098.8	44.88
325.0	006.0000	0716.6	066.5		071.6	000.8880	0677.0	099.8	44.59
326.0	006.0000	0724.0	066.7		071.3	000.8880	0676.5	100.9	44.29
327.0	006.0000	0729.1	066.9		071.0	000.8880	0676.0	101.9	43.99
328.0	006.0000	0734.9	067.1		070.8	000.8880	0675.6	103.0	43.68
329.0	006.0000	0740.3	067.3		070.5	000.8880	0675.2	104.1	43.38
330.0	006.0000	0743.8	067.4		070.3	000.8880	0674.9	105.2	43.06
331.0	006.0000	0743.9	067.4		070.2	000.8880	0674.7	106.4	42.75
332.0	006.0000	0741.8	067.3		070.1	000.8880	0674.6	107.6	42.43
333.0	006.0000	0736.5	067.1		070.1	000.8880	0674.6	108.7	42.11
334.0	006.0000	0727.2	066.8		070.2	000.8880	0674.7	109.9	41.78
335.0	006.0000	0717.1	066.5		070.3	000.8880	0674.9	111.1	41.45
336.0	006.0000	0710.4	066.3		070.4	000.8880	0675.0	112.3	41.13
337.0	006.0000	0710.8	066.3		070.3	000.8880	0674.9	113.5	40.81
338.0	006.0000	0716.2	066.5		070.2	000.8880	0674.7	114.6	40.49
339.0	006.0000	0721.1	066.6		070.1	000.8880	0674.5	115.8	40.17
340.0	006.0000	0722.1	066.7		070.0	000.8880	0674.5	116.9	39.84

11-04-2021

Terrain Data: GLOBE 30 Sec

FMOver Analysis

Alta

DUBOIS

Channel = 210C3

Max ERP = 0.888 kW

RCAMSL = 2594.473 m

N. Lat. 43 42 41.90

W. Lng. 111 20 59.31

Protected

60 dBu

Channel = 209C2

Max ERP = 6 kW

RCAMSL = 3031.4 m

N. Lat. 43 29 59.00

W. Lng. 109 41 20.00

Interfering

54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
039.0	000.8880	0652.1	045.3	299.7	006.0000	0358.4	120.1	39.99	
040.0	000.8880	0651.9	045.3	299.7	006.0000	0357.4	119.3	40.14	
041.0	000.8880	0651.5	045.3	299.6	006.0000	0356.2	118.5	40.29	
042.0	000.8880	0651.1	045.3	299.5	006.0000	0355.0	117.7	40.43	
043.0	000.8880	0650.7	045.3	299.4	006.0000	0353.7	117.0	40.57	
044.0	000.8880	0650.4	045.3	299.3	006.0000	0352.2	116.2	40.69	
045.0	000.8880	0650.6	045.3	299.2	006.0000	0350.7	115.5	40.82	
046.0	000.8880	0651.6	045.3	299.1	006.0000	0349.2	114.7	40.95	
047.0	000.8880	0652.8	045.3	299.0	006.0000	0347.7	113.9	41.08	
048.0	000.8880	0654.4	045.4	298.8	006.0000	0346.2	113.2	41.21	
049.0	000.8880	0656.1	045.5	298.7	006.0000	0344.6	112.4	41.34	
050.0	000.8880	0658.3	045.5	298.6	006.0000	0342.9	111.6	41.46	
051.0	000.8880	0660.9	045.6	298.5	006.0000	0341.3	110.9	41.59	
052.0	000.8880	0663.7	045.7	298.4	006.0000	0339.5	110.1	41.73	
053.0	000.8880	0666.6	045.8	298.2	006.0000	0337.7	109.3	41.86	
054.0	000.8880	0669.3	045.9	298.1	006.0000	0335.7	108.6	41.99	
055.0	000.8880	0671.6	046.0	297.9	006.0000	0333.6	107.8	42.11	
056.0	000.8880	0673.4	046.1	297.8	006.0000	0331.2	107.1	42.23	
057.0	000.8880	0674.2	046.1	297.6	006.0000	0328.6	106.4	42.34	
058.0	000.8880	0674.0	046.1	297.3	006.0000	0326.1	105.7	42.45	
059.0	000.8880	0673.2	046.1	297.1	006.0000	0323.4	105.0	42.55	
060.0	000.8880	0672.2	046.0	296.8	006.0000	0320.9	104.4	42.66	
061.0	000.8880	0671.2	046.0	296.6	006.0000	0318.5	103.8	42.77	
062.0	000.8880	0670.5	046.0	296.3	006.0000	0316.3	103.1	42.89	
063.0	000.8880	0670.1	045.9	296.0	006.0000	0314.3	102.5	43.02	
064.0	000.8880	0669.8	045.9	295.7	006.0000	0312.4	101.9	43.15	
065.0	000.8880	0669.9	045.9	295.4	006.0000	0310.6	101.3	43.29	
066.0	000.8880	0670.1	045.9	295.1	006.0000	0309.1	100.7	43.43	
067.0	000.8880	0670.7	046.0	294.8	006.0000	0307.7	100.0	43.58	
068.0	000.8880	0671.7	046.0	294.5	006.0000	0306.7	099.4	43.73	
069.0	000.8880	0673.0	046.0	294.2	006.0000	0305.8	098.9	43.90	
070.0	000.8880	0674.4	046.1	293.9	006.0000	0305.2	098.3	44.06	
071.0	000.8880	0676.0	046.2	293.6	006.0000	0304.5	097.7	44.22	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
072.0	000.8880	0677.6	046.2	293.2	006.0000	0303.4	097.1	44.37
073.0	000.8880	0679.4	046.3	292.9	006.0000	0302.0	096.6	44.50
074.0	000.8880	0681.5	046.3	292.5	006.0000	0300.2	096.0	44.61
075.0	000.8880	0683.9	046.4	292.2	006.0000	0298.4	095.5	44.73
076.0	000.8880	0686.7	046.5	291.8	006.0000	0296.6	094.9	44.84
077.0	000.8880	0689.7	046.6	291.4	006.0000	0294.6	094.4	44.95
078.0	000.8880	0692.2	046.7	291.0	006.0000	0292.2	093.9	45.03
079.0	000.8880	0694.6	046.8	290.6	006.0000	0289.5	093.4	45.10
080.0	000.8880	0696.2	046.8	290.2	006.0000	0286.5	092.9	45.15
081.0	000.8880	0696.8	046.9	289.8	006.0000	0283.2	092.5	45.17
082.0	000.8880	0696.1	046.8	289.3	006.0000	0279.5	092.2	45.17
083.0	000.8880	0694.1	046.8	288.8	006.0000	0274.9	091.9	45.11
084.0	000.8880	0691.9	046.7	288.4	006.0000	0269.3	091.6	45.02
085.0	000.8880	0689.5	046.6	287.9	006.0000	0263.5	091.4	44.92
086.0	000.8880	0686.9	046.5	287.4	006.0000	0257.3	091.2	44.79
087.0	000.8880	0684.6	046.4	286.9	006.0000	0250.8	091.0	44.65
088.0	000.8880	0682.2	046.4	286.4	006.0000	0244.6	090.8	44.51
089.0	000.8880	0679.4	046.3	285.9	006.0000	0238.3	090.7	44.34
090.0	000.8880	0675.8	046.1	285.3	006.0000	0232.2	090.6	44.17
091.0	000.8880	0672.5	046.0	284.8	006.0000	0226.8	090.5	44.00
092.0	000.8880	0669.1	045.9	284.3	006.0000	0221.3	090.4	43.82
093.0	000.8880	0665.6	045.8	283.8	006.0000	0215.3	090.4	43.62
094.0	000.8880	0662.1	045.7	283.3	006.0000	0208.6	090.4	43.37
095.0	000.8880	0658.3	045.5	282.8	006.0000	0201.5	090.4	43.09
096.0	000.8880	0653.9	045.4	282.3	006.0000	0194.4	090.5	42.80
097.0	000.8880	0649.0	045.2	281.8	006.0000	0187.1	090.6	42.49
098.0	000.8880	0644.5	045.1	281.3	006.0000	0179.8	090.7	42.17
099.0	000.8880	0640.3	044.9	280.8	006.0000	0172.6	090.9	41.86
100.0	000.8880	0636.7	044.8	280.3	006.0000	0165.6	091.0	41.55
101.0	000.8880	0634.1	044.7	279.8	006.0000	0159.3	091.1	41.27
102.0	000.8880	0632.0	044.6	279.3	006.0000	0154.3	091.2	41.04
103.0	000.8880	0630.4	044.6	278.8	006.0000	0150.5	091.3	40.86
104.0	000.8880	0628.6	044.5	278.3	006.0000	0147.4	091.5	40.69
105.0	000.8880	0625.4	044.4	277.9	006.0000	0144.6	091.7	40.51
106.0	000.8880	0620.6	044.2	277.4	006.0000	0141.5	092.0	40.31
107.0	000.8880	0614.5	044.0	277.0	006.0000	0138.4	092.3	40.09
108.0	000.8880	0608.0	043.8	276.5	006.0000	0135.7	092.7	39.87
109.0	000.8880	0602.0	043.6	276.1	006.0000	0132.8	093.1	39.65
110.0	000.8880	0596.3	043.4	275.7	006.0000	0129.8	093.5	39.42
111.0	000.8880	0591.1	043.2	275.3	006.0000	0127.4	093.9	39.21
112.0	000.8880	0586.3	043.0	274.9	006.0000	0125.2	094.3	39.02
113.0	000.8880	0581.2	042.8	274.5	006.0000	0123.1	094.7	38.82
114.0	000.8880	0574.4	042.5	274.1	006.0000	0121.1	095.2	38.60
115.0	000.8880	0565.4	042.2	273.8	006.0000	0119.1	095.8	38.37
116.0	000.8880	0553.2	041.7	273.5	006.0000	0117.5	096.6	38.11
117.0	000.8880	0538.5	041.0	273.3	006.0000	0116.3	097.4	37.83
118.0	000.8880	0521.9	040.3	273.1	006.0000	0115.4	098.4	37.55
119.0	000.8880	0505.3	039.5	272.9	006.0000	0114.6	099.4	37.28
120.0	000.8880	0490.7	038.9	272.7	006.0000	0113.9	100.3	37.03
121.0	000.8880	0479.3	038.4	272.5	006.0000	0113.2	101.1	36.83
122.0	000.8880	0470.4	038.0	272.3	006.0000	0112.7	101.8	36.66

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
123.0	000.8880	0462.9	037.7	272.1	006.0000	0112.4	102.4	36.50
124.0	000.8880	0454.3	037.3	271.9	006.0000	0111.9	103.0	36.34
125.0	000.8880	0444.7	036.9	271.7	006.0000	0111.4	103.7	36.16
126.0	000.8880	0435.1	036.5	271.6	006.0000	0111.0	104.4	35.99
127.0	000.8880	0426.8	036.1	271.4	006.0000	0110.5	105.1	35.84
128.0	000.8880	0420.2	035.9	271.2	006.0000	0110.0	105.7	35.69
129.0	000.8880	0414.3	035.6	271.0	006.0000	0109.4	106.2	35.55
130.0	000.8880	0408.8	035.4	270.9	006.0000	0108.9	106.8	35.41
131.0	000.8880	0405.3	035.3	270.7	006.0000	0108.4	107.3	35.29
132.0	000.8880	0401.7	035.1	270.5	006.0000	0107.8	107.8	35.17
133.0	000.8880	0395.9	034.9	270.3	006.0000	0107.4	108.4	35.03
134.0	000.8880	0385.2	034.5	270.2	006.0000	0107.2	109.1	34.88
135.0	000.8880	0368.4	033.8	270.3	006.0000	0107.3	110.1	34.71
136.0	000.8880	0345.5	032.7	270.5	006.0000	0107.8	111.2	34.50
137.0	000.8880	0316.7	031.2	270.8	006.0000	0108.9	112.7	34.27
138.0	000.8880	0286.2	029.7	271.2	006.0000	0110.0	114.1	34.04
139.0	000.8880	0258.1	028.2	271.6	006.0000	0111.0	115.4	33.83
140.0	000.8880	0234.8	027.0	271.9	006.0000	0111.9	116.6	33.65
141.0	000.8880	0217.8	026.0	272.1	006.0000	0112.4	117.6	33.49
142.0	000.8880	0205.7	025.3	272.2	006.0000	0112.6	118.4	33.36
143.0	000.8880	0196.3	024.8	272.3	006.0000	0112.7	119.0	33.25
144.0	000.8880	0190.3	024.5	272.3	006.0000	0112.7	119.6	33.15
145.0	000.8880	0188.9	024.4	272.2	006.0000	0112.5	120.0	33.08
146.0	000.8880	0192.2	024.6	272.0	006.0000	0112.3	120.2	33.03
147.0	000.8880	0196.4	024.8	271.8	006.0000	0111.7	120.4	32.97
148.0	000.8880	0197.8	024.9	271.7	006.0000	0111.3	120.8	32.90
149.0	000.8880	0196.5	024.8	271.6	006.0000	0111.0	121.2	32.83
150.0	000.8880	0199.5	025.0	271.4	006.0000	0110.5	121.5	32.76
151.0	000.8880	0212.4	025.7	271.0	006.0000	0109.4	121.5	32.72
152.0	000.8880	0234.2	027.0	270.4	006.0000	0107.6	121.3	32.70
153.0	000.8880	0259.6	028.3	269.7	006.0000	0105.7	121.1	32.67
154.0	000.8880	0285.3	029.6	269.1	006.0000	0103.8	121.0	32.63
155.0	000.8880	0308.2	030.8	268.5	006.0000	0102.1	121.1	32.57
156.0	000.8880	0327.2	031.8	267.9	006.0000	0103.4	121.2	32.58
157.0	000.8880	0341.0	032.5	267.5	006.0000	0105.3	121.5	32.59
158.0	000.8880	0349.4	032.9	267.2	006.0000	0106.4	121.9	32.56

KWCN LIC 210 A Dom 0.075 kW 131 m HAAT MCN
Pinedale WY 2353.0 m COR AMSL -
Lat = 42 50 38.70, Lng = 109 55 25.50 - NAD 83
Wcn, Inc.
Fac ID# 176230 BLED20120928ANQ
Dist = 75.34 km, Azi = 194.7°, Rev Azi =14.6°

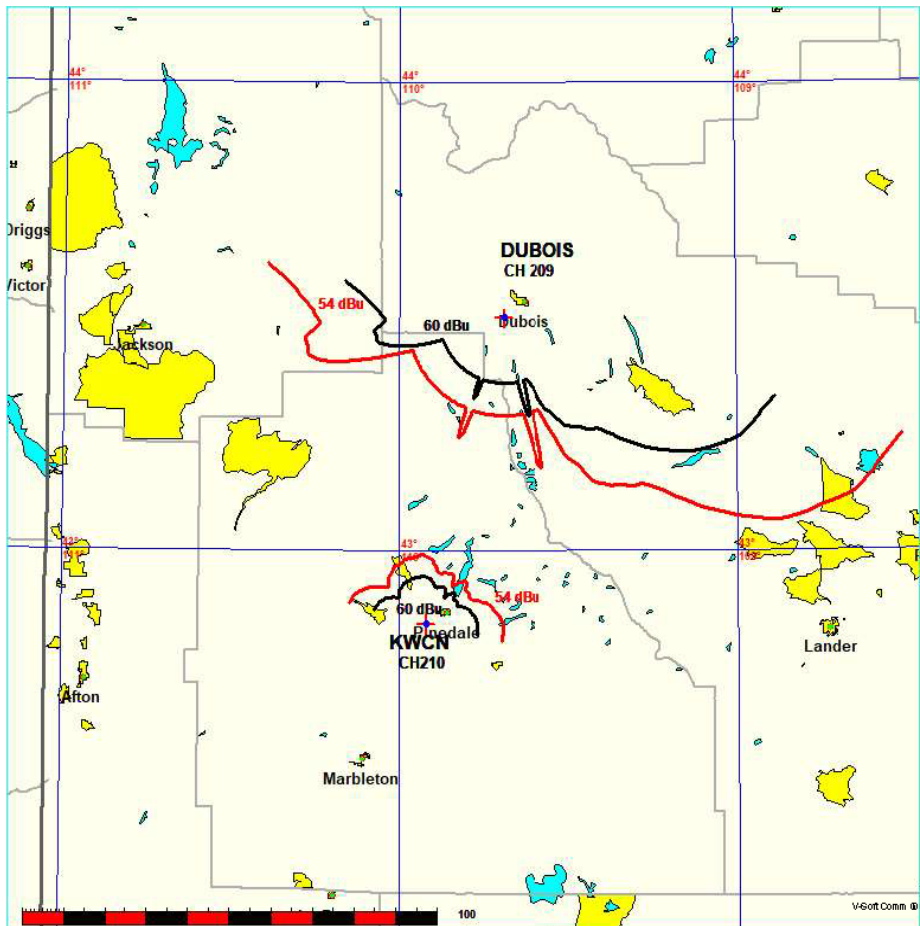
Reference's Greatest Overlaps: (In = 41.42, Out = 36.67)
Toward Ref: HAAT = 88.0m, 0.075 kW
Toward Ref: 60 dBu Protected = 9.0 km, Int = 12.62 km
Direct line Ref. Protected Contour = 15.8 km, Int = 23.48 km
Direct line Ref. HAAT = -136.1 meters, 6.0 kW

Dubois, WY
University Of Wyoming

FMCommander Single Allocation Study - 11-04-2021 - GLOBE 30 Sec
DUBOIS's Overlaps (In= 46.97 km, Out= 42.85 km)

DUBOIS CH 209 C2
Lat= 43 29 59.00, Lng= 109 41 20.00
6.0 kW 392.7 m HAAT, 3031.4 m COR
Prot= 60 dBu, Intef= 54 dBu

KWCN CH 210 A BLED20120928ANQ
Lat=42 50 38.70, Lng= 109 55 25.50
0.075 kW 131 m HAAT, 2353 m COR
Prot= 60 dBu, Intef= 54 dBu



11-04-2021

Terrain Data: GLOBE 30 Sec

FMOver Analysis

DUBOIS

KWCN BLED20120928ANQ

Channel = 209C2

Channel = 210A

Max ERP = 6 kW

Max ERP = 0.075 kW

RCAMSL = 3031.4 m

RCAMSL = 2353 m

N. Lat. 43 29 59.00

N. Lat. 42 50 38.70

W. Lng. 109 41 20.00

W. Lng. 109 55 25.50

Protected

Interfering

60 dBu

54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
135.0	006.0000	0237.4	041.5	047.9	000.0750	0096.4	065.2	26.92	
136.0	006.0000	0213.1	039.8	046.5	000.0750	0103.6	064.4	27.60	
137.0	006.0000	0191.0	038.1	044.9	000.0750	0107.7	063.7	28.05	
138.0	006.0000	0173.1	036.6	043.5	000.0750	0104.3	063.2	28.03	
139.0	006.0000	0160.8	035.3	042.3	000.0750	0099.0	062.7	27.86	
140.0	006.0000	0154.0	034.5	041.5	000.0750	0096.0	062.2	27.84	
141.0	006.0000	0151.3	034.2	041.2	000.0750	0094.6	061.6	27.93	
142.0	006.0000	0148.0	033.9	040.7	000.0750	0092.9	061.1	27.99	
143.0	006.0000	0142.9	033.3	040.1	000.0750	0090.3	060.6	27.96	
144.0	006.0000	0136.3	032.5	039.3	000.0750	0085.9	060.3	27.78	
145.0	006.0000	0131.1	031.9	038.6	000.0750	0080.7	059.9	27.53	
146.0	006.0000	0127.8	031.6	038.1	000.0750	0075.9	059.5	27.31	
147.0	006.0000	0124.4	031.2	037.6	000.0750	0070.6	059.1	27.04	
148.0	006.0000	0119.8	030.7	036.9	000.0750	0065.3	058.7	26.71	
149.0	006.0000	0114.3	030.1	036.2	000.0750	0062.5	058.4	26.57	
150.0	006.0000	0110.6	029.6	035.6	000.0750	0063.4	058.1	26.73	
151.0	006.0000	0104.8	028.9	034.7	000.0750	0068.8	058.0	27.23	
152.0	006.0000	0093.9	027.5	033.2	000.0750	0082.6	058.2	28.23	
153.0	006.0000	0082.2	025.8	031.6	000.0750	0093.7	058.7	28.88	
154.0	006.0000	0076.6	025.0	030.7	000.0750	0097.8	058.7	29.14	
155.0	006.0000	0072.5	024.4	029.9	000.0750	0099.8	058.7	29.28	
156.0	006.0000	0064.8	023.2	028.8	000.0750	0100.6	059.1	29.21	
157.0	006.0000	0053.5	021.3	027.1	000.0750	0098.6	059.9	28.76	
158.0	006.0000	0041.3	018.6	025.0	000.0750	0095.1	061.5	28.01	
159.0	006.0000	0031.5	016.1	023.2	000.0750	0093.9	063.0	27.44	
160.0	006.0000	0027.1	015.8	022.7	000.0750	0093.8	063.0	27.41	
161.0	006.0000	0022.9	015.8	022.6	000.0750	0093.8	062.8	27.47	
162.0	006.0000	0018.4	015.8	022.4	000.0750	0093.7	062.7	27.52	
163.0	006.0000	0023.0	015.8	022.2	000.0750	0093.7	062.5	27.58	
164.0	006.0000	0039.3	018.1	023.4	000.0750	0094.0	060.5	28.26	
165.0	006.0000	0060.6	022.5	025.9	000.0750	0096.5	056.9	29.72	
166.0	006.0000	0071.6	024.2	026.7	000.0750	0097.8	055.3	30.39	
167.0	006.0000	0068.4	023.7	026.1	000.0750	0096.7	055.4	30.27	
168.0	006.0000	0042.5	018.9	022.8	000.0750	0093.8	059.1	28.74	
169.0	006.0000	0003.8	015.8	020.9	000.0750	0092.9	061.5	27.84	
170.0	006.0000	-0034.6	015.8	020.7	000.0750	0092.5	061.4	27.86	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
171.0	006.0000	-0067.7	015.8	020.5	000.0750	0092.0	061.2	27.87
172.0	006.0000	-0101.4	015.8	020.3	000.0750	0091.5	061.1	27.88
173.0	006.0000	-0138.6	015.8	020.0	000.0750	0090.8	061.0	27.88
174.0	006.0000	-0179.1	015.8	019.8	000.0750	0090.2	060.9	27.88
175.0	006.0000	-0207.3	015.8	019.6	000.0750	0089.5	060.7	27.87
176.0	006.0000	-0227.1	015.8	019.3	000.0750	0088.8	060.6	27.86
177.0	006.0000	-0238.8	015.8	019.1	000.0750	0088.1	060.5	27.85
178.0	006.0000	-0245.7	015.8	018.9	000.0750	0087.4	060.4	27.84
179.0	006.0000	-0250.7	015.8	018.6	000.0750	0086.8	060.3	27.82
180.0	006.0000	-0251.0	015.8	018.4	000.0750	0086.2	060.2	27.81
181.0	006.0000	-0251.2	015.8	018.1	000.0750	0085.8	060.2	27.81
182.0	006.0000	-0251.1	015.8	017.9	000.0750	0085.6	060.1	27.82
183.0	006.0000	-0247.4	015.8	017.6	000.0750	0085.4	060.0	27.83
184.0	006.0000	-0244.2	015.8	017.4	000.0750	0085.3	059.9	27.85
185.0	006.0000	-0242.8	015.8	017.1	000.0750	0085.3	059.9	27.87
186.0	006.0000	-0237.0	015.8	016.8	000.0750	0085.3	059.8	27.89
187.0	006.0000	-0231.2	015.8	016.6	000.0750	0085.4	059.8	27.91
188.0	006.0000	-0222.5	015.8	016.3	000.0750	0085.5	059.7	27.93
189.0	006.0000	-0210.4	015.8	016.1	000.0750	0085.7	059.7	27.96
190.0	006.0000	-0200.6	015.8	015.8	000.0750	0085.9	059.7	27.99
191.0	006.0000	-0194.0	015.8	015.5	000.0750	0086.2	059.6	28.02
192.0	006.0000	-0186.2	015.8	015.3	000.0750	0086.6	059.6	28.05
193.0	006.0000	-0171.8	015.8	015.0	000.0750	0087.1	059.6	28.09
194.0	006.0000	-0152.7	015.8	014.8	000.0750	0087.6	059.6	28.13
195.0	006.0000	-0128.6	015.8	014.5	000.0750	0088.1	059.6	28.17
196.0	006.0000	-0092.3	015.8	014.2	000.0750	0088.7	059.6	28.20
197.0	006.0000	-0045.9	015.8	014.0	000.0750	0089.3	059.6	28.25
198.0	006.0000	-0001.2	015.8	013.7	000.0750	0090.1	059.6	28.30
199.0	006.0000	0029.2	015.8	013.4	000.0750	0091.1	059.6	28.36
200.0	006.0000	0047.3	020.0	012.7	000.0750	0094.7	055.5	30.12
201.0	006.0000	0051.2	020.8	012.2	000.0750	0097.5	054.7	30.61
202.0	006.0000	0043.4	019.1	012.1	000.0750	0097.9	056.5	29.97
203.0	006.0000	0032.5	016.4	012.3	000.0750	0096.8	059.2	28.91
204.0	006.0000	0022.1	015.8	012.1	000.0750	0097.8	059.8	28.74
205.0	006.0000	0010.0	015.8	011.9	000.0750	0099.4	059.9	28.83
206.0	006.0000	-0005.1	015.8	011.6	000.0750	0101.2	060.0	28.92
207.0	006.0000	-0025.2	015.8	011.4	000.0750	0103.0	060.0	29.01
208.0	006.0000	-0047.5	015.8	011.1	000.0750	0104.6	060.1	29.09
209.0	006.0000	-0067.2	015.8	010.9	000.0750	0106.1	060.2	29.15
210.0	006.0000	-0083.3	015.8	010.6	000.0750	0107.4	060.3	29.20
211.0	006.0000	-0099.2	015.8	010.4	000.0750	0108.6	060.4	29.24
212.0	006.0000	-0116.8	015.8	010.1	000.0750	0109.7	060.5	29.27
213.0	006.0000	-0132.4	015.8	009.9	000.0750	0110.7	060.6	29.30
214.0	006.0000	-0142.2	015.8	009.6	000.0750	0111.6	060.7	29.31
215.0	006.0000	-0146.5	015.8	009.4	000.0750	0112.5	060.8	29.32
216.0	006.0000	-0147.3	015.8	009.2	000.0750	0113.3	060.9	29.33
217.0	006.0000	-0145.0	015.8	008.9	000.0750	0114.1	061.1	29.33
218.0	006.0000	-0138.5	015.8	008.7	000.0750	0114.9	061.2	29.33
219.0	006.0000	-0132.1	015.8	008.5	000.0750	0115.8	061.3	29.33
220.0	006.0000	-0129.1	015.8	008.3	000.0750	0116.7	061.5	29.34
221.0	006.0000	-0126.3	015.8	008.1	000.0750	0117.7	061.6	29.34

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)		Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
222.0	006.0000	-0119.3	015.8		007.8	000.0750	0118.7	061.8	29.35
223.0	006.0000	-0108.9	015.8		007.6	000.0750	0119.7	061.9	29.35
224.0	006.0000	-0099.2	015.8		007.4	000.0750	0120.7	062.1	29.35
225.0	006.0000	-0094.2	015.8		007.2	000.0750	0121.7	062.2	29.35
226.0	006.0000	-0094.1	015.8		007.0	000.0750	0122.5	062.4	29.33
227.0	006.0000	-0093.4	015.8		006.8	000.0750	0123.3	062.6	29.32
228.0	006.0000	-0090.2	015.8		006.6	000.0750	0124.0	062.8	29.29
229.0	006.0000	-0085.4	015.8		006.5	000.0750	0124.5	063.0	29.26
230.0	006.0000	-0080.1	015.8		006.3	000.0750	0125.0	063.1	29.23
231.0	006.0000	-0074.4	015.8		006.1	000.0750	0125.4	063.3	29.18
232.0	006.0000	-0067.8	015.8		005.9	000.0750	0125.6	063.5	29.13
233.0	006.0000	-0062.3	015.8		005.8	000.0750	0125.9	063.7	29.08
234.0	006.0000	-0059.0	015.8		005.6	000.0750	0126.1	063.9	29.02
235.0	006.0000	-0057.2	015.8		005.4	000.0750	0126.3	064.1	28.97
236.0	006.0000	-0055.6	015.8		005.3	000.0750	0126.5	064.3	28.91
237.0	006.0000	-0053.4	015.8		005.1	000.0750	0126.8	064.6	28.85
238.0	006.0000	-0050.5	015.8		005.0	000.0750	0126.9	064.8	28.79
239.0	006.0000	-0047.5	015.8		004.8	000.0750	0127.1	065.0	28.73
240.0	006.0000	-0045.7	015.8		004.7	000.0750	0127.2	065.2	28.66
241.0	006.0000	-0044.1	015.8		004.5	000.0750	0127.3	065.5	28.59
242.0	006.0000	-0041.2	015.8		004.4	000.0750	0127.3	065.7	28.52
243.0	006.0000	-0036.9	015.8		004.3	000.0750	0127.4	065.9	28.45
244.0	006.0000	-0032.0	015.8		004.2	000.0750	0127.5	066.1	28.38
245.0	006.0000	-0026.5	015.8		004.0	000.0750	0127.5	066.4	28.31
246.0	006.0000	-0018.3	015.8		003.9	000.0750	0127.7	066.6	28.24
247.0	006.0000	-0007.5	015.8		003.8	000.0750	0127.8	066.9	28.16
248.0	006.0000	0004.4	015.8		003.7	000.0750	0127.9	067.1	28.09
249.0	006.0000	0016.5	015.8		003.6	000.0750	0128.0	067.4	28.02
250.0	006.0000	0028.0	015.8		003.5	000.0750	0128.2	067.6	27.95
251.0	006.0000	0038.7	018.0		001.7	000.0750	0132.6	067.1	28.36
252.0	006.0000	0050.6	020.7		359.4	000.0750	0137.3	066.5	28.80
253.0	006.0000	0061.6	022.7		357.6	000.0750	0138.8	066.3	28.95
254.0	006.0000	0072.8	024.4		356.1	000.0750	0137.9	066.3	28.90

11-04-2021

Terrain Data: GLOBE 30 Sec

FMOver Analysis

KWCN BLED20120928ANQ

DUBOIS

Channel = 210A
 Max ERP = 0.075 kW
 RCAMSL = 2353 m
 N. Lat. 42 50 38.70
 W. Lng. 109 55 25.50
 Protected
 60 dBu

Channel = 209C2
 Max ERP = 6 kW
 RCAMSL = 3031.4 m
 N. Lat. 43 29 59.00
 W. Lng. 109 41 20.00
 Interfering
 54 dBu

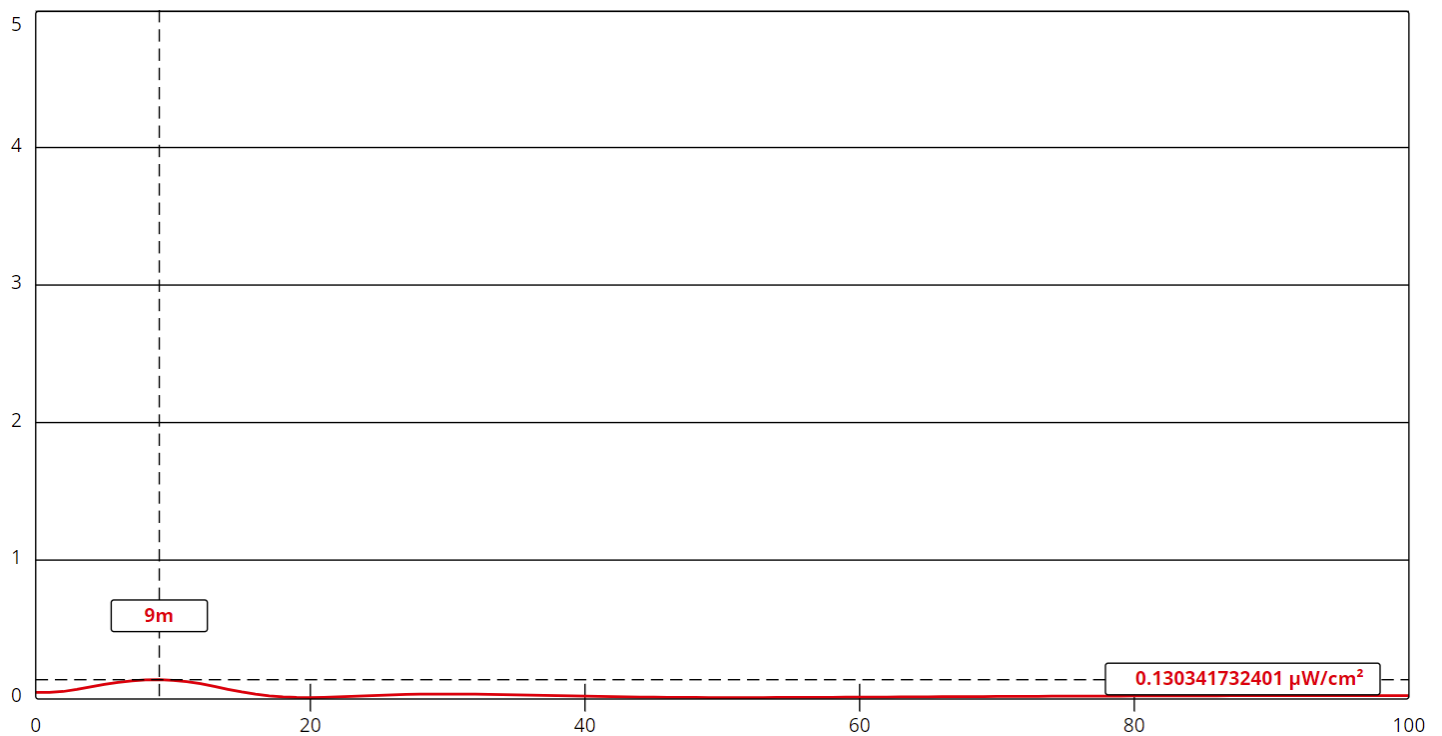
Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
315.0	000.0750	0085.6	008.9	200.9	006.0000	0051.4	071.3	41.32	
316.0	000.0750	0087.9	009.0	200.9	006.0000	0051.4	071.1	41.37	
317.0	000.0750	0091.3	009.2	201.0	006.0000	0051.2	070.8	41.40	
318.0	000.0750	0095.8	009.4	201.1	006.0000	0050.8	070.6	41.43	
319.0	000.0750	0100.5	009.6	201.2	006.0000	0050.4	070.3	41.46	
320.0	000.0750	0104.7	009.8	201.3	006.0000	0050.0	070.1	41.48	
321.0	000.0750	0108.2	010.0	201.3	006.0000	0049.7	069.9	41.51	
322.0	000.0750	0110.9	010.1	201.3	006.0000	0049.6	069.7	41.56	
323.0	000.0750	0112.7	010.2	201.3	006.0000	0049.8	069.5	41.62	
324.0	000.0750	0113.6	010.2	201.3	006.0000	0050.1	069.3	41.68	
325.0	000.0750	0114.4	010.3	201.2	006.0000	0050.4	069.1	41.75	
326.0	000.0750	0115.6	010.3	201.2	006.0000	0050.6	069.0	41.81	
327.0	000.0750	0117.6	010.4	201.1	006.0000	0050.8	068.8	41.87	
328.0	000.0750	0120.3	010.5	201.1	006.0000	0050.9	068.5	41.93	
329.0	000.0750	0123.0	010.6	201.1	006.0000	0050.9	068.3	41.98	
330.0	000.0750	0125.0	010.7	201.0	006.0000	0051.1	068.1	42.04	
331.0	000.0750	0126.0	010.7	201.0	006.0000	0051.3	068.0	42.10	
332.0	000.0750	0126.4	010.7	200.9	006.0000	0051.5	067.8	42.15	
333.0	000.0750	0126.5	010.7	200.8	006.0000	0051.5	067.7	42.19	
334.0	000.0750	0126.4	010.7	200.7	006.0000	0051.5	067.5	42.22	
335.0	000.0750	0125.9	010.7	200.5	006.0000	0051.2	067.4	42.23	
336.0	000.0750	0125.6	010.7	200.4	006.0000	0050.6	067.3	42.20	
337.0	000.0750	0125.8	010.7	200.3	006.0000	0049.9	067.2	42.18	
338.0	000.0750	0126.8	010.8	200.2	006.0000	0049.3	067.0	42.16	
339.0	000.0750	0128.4	010.8	200.1	006.0000	0048.6	066.8	42.14	
340.0	000.0750	0130.4	010.9	200.0	006.0000	0047.8	066.6	42.11	
341.0	000.0750	0132.5	011.0	200.0	006.0000	0047.0	066.5	42.08	
342.0	000.0750	0133.9	011.0	199.9	006.0000	0045.8	066.3	42.01	
343.0	000.0750	0134.6	011.1	199.7	006.0000	0044.1	066.2	41.88	
344.0	000.0750	0134.7	011.1	199.6	006.0000	0042.1	066.0	41.70	
345.0	000.0750	0134.8	011.1	199.5	006.0000	0039.7	065.9	41.48	
346.0	000.0750	0134.8	011.1	199.3	006.0000	0037.0	065.8	41.22	
347.0	000.0750	0134.5	011.1	199.2	006.0000	0033.9	065.7	40.91	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
348.0	000.0750	0134.1	011.1	199.0	006.0000	0030.2	065.6	40.51
349.0	000.0750	0133.9	011.0	198.9	006.0000	0026.4	065.5	40.51
350.0	000.0750	0133.8	011.0	198.7	006.0000	0022.5	065.5	40.52
351.0	000.0750	0133.9	011.0	198.6	006.0000	0018.3	065.4	40.54
352.0	000.0750	0133.6	011.0	198.4	006.0000	0013.7	065.3	40.55
353.0	000.0750	0133.5	011.0	198.3	006.0000	0008.8	065.2	40.57
354.0	000.0750	0134.3	011.1	198.1	006.0000	0004.1	065.1	40.59
355.0	000.0750	0136.0	011.1	198.0	006.0000	-0000.8	065.0	40.62
356.0	000.0750	0137.8	011.2	197.9	006.0000	-0005.9	064.8	40.64
357.0	000.0750	0138.4	011.2	197.7	006.0000	-0012.2	064.7	40.66
358.0	000.0750	0139.2	011.3	197.6	006.0000	-0018.9	064.6	40.68
359.0	000.0750	0138.1	011.2	197.4	006.0000	-0027.2	064.6	40.68
000.0	000.0750	0136.0	011.1	197.2	006.0000	-0036.0	064.6	40.68
001.0	000.0750	0134.0	011.1	197.0	006.0000	-0045.0	064.6	40.67
002.0	000.0750	0131.8	011.0	196.8	006.0000	-0053.9	064.7	40.67
003.0	000.0750	0129.4	010.9	196.6	006.0000	-0062.7	064.7	40.66
004.0	000.0750	0127.6	010.8	196.5	006.0000	-0071.0	064.8	40.65
005.0	000.0750	0126.9	010.8	196.3	006.0000	-0078.8	064.8	40.65
006.0	000.0750	0125.5	010.7	196.1	006.0000	-0086.5	064.8	40.65
007.0	000.0750	0122.6	010.6	196.0	006.0000	-0094.4	064.9	40.63
008.0	000.0750	0118.0	010.4	195.8	006.0000	-0102.0	065.0	40.61
009.0	000.0750	0113.9	010.2	195.6	006.0000	-0108.9	065.2	40.58
010.0	000.0750	0110.2	010.1	195.4	006.0000	-0115.2	065.3	40.55
011.0	000.0750	0105.3	009.9	195.3	006.0000	-0120.8	065.5	40.51
012.0	000.0750	0098.6	009.5	195.1	006.0000	-0126.0	065.8	40.46
013.0	000.0750	0093.0	009.3	194.9	006.0000	-0130.3	066.1	40.41
014.0	000.0750	0089.2	009.1	194.8	006.0000	-0134.1	066.3	40.37
015.0	000.0750	0087.1	009.0	194.7	006.0000	-0137.6	066.4	40.35
016.0	000.0750	0085.7	008.9	194.5	006.0000	-0140.9	066.4	40.34
017.0	000.0750	0085.3	008.9	194.4	006.0000	-0143.9	066.5	40.33
018.0	000.0750	0085.7	008.9	194.3	006.0000	-0147.0	066.5	40.34
019.0	000.0750	0087.8	009.0	194.1	006.0000	-0150.2	066.4	40.35
020.0	000.0750	0090.7	009.2	194.0	006.0000	-0153.3	066.2	40.38
021.0	000.0750	0093.0	009.3	193.8	006.0000	-0156.4	066.1	40.40
022.0	000.0750	0093.6	009.3	193.7	006.0000	-0159.2	066.1	40.40
023.0	000.0750	0093.9	009.3	193.5	006.0000	-0161.9	066.1	40.40
024.0	000.0750	0094.3	009.3	193.4	006.0000	-0164.6	066.1	40.40
025.0	000.0750	0095.1	009.4	193.2	006.0000	-0167.3	066.1	40.40
026.0	000.0750	0096.6	009.5	193.1	006.0000	-0170.1	066.1	40.40
027.0	000.0750	0098.4	009.5	192.9	006.0000	-0172.8	066.1	40.41
028.0	000.0750	0099.9	009.6	192.8	006.0000	-0175.5	066.0	40.42
029.0	000.0750	0100.7	009.6	192.6	006.0000	-0177.9	066.0	40.41
030.0	000.0750	0099.7	009.6	192.5	006.0000	-0179.8	066.1	40.40
031.0	000.0750	0096.5	009.4	192.4	006.0000	-0181.2	066.3	40.36
032.0	000.0750	0091.5	009.2	192.4	006.0000	-0182.1	066.6	40.31
033.0	000.0750	0084.5	008.8	192.3	006.0000	-0182.3	067.0	40.23
034.0	000.0750	0075.5	008.3	192.4	006.0000	-0181.7	067.6	40.14
035.0	000.0750	0066.5	007.8	192.4	006.0000	-0180.9	068.1	40.04
036.0	000.0750	0062.5	007.5	192.4	006.0000	-0181.2	068.4	39.99
037.0	000.0750	0065.6	007.7	192.2	006.0000	-0183.5	068.3	40.01
038.0	000.0750	0075.1	008.3	191.9	006.0000	-0186.9	067.8	40.09

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)		Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
039.0	000.0750	0084.2	008.8		191.6	006.0000	-0189.5	067.4	40.16
040.0	000.0750	0089.9	009.1		191.4	006.0000	-0191.2	067.2	40.20
041.0	000.0750	0093.9	009.3		191.2	006.0000	-0192.7	067.1	40.22
042.0	000.0750	0097.8	009.5		191.0	006.0000	-0194.1	067.0	40.23
043.0	000.0750	0102.1	009.7		190.8	006.0000	-0195.6	067.0	40.25
044.0	000.0750	0106.1	009.9		190.6	006.0000	-0197.0	066.9	40.26
045.0	000.0750	0107.7	010.0		190.4	006.0000	-0198.1	066.9	40.25
046.0	000.0750	0105.6	009.9		190.3	006.0000	-0198.6	067.1	40.22
047.0	000.0750	0101.1	009.7		190.3	006.0000	-0198.7	067.4	40.17
048.0	000.0750	0096.1	009.4		190.3	006.0000	-0198.6	067.7	40.12
049.0	000.0750	0090.8	009.2		190.4	006.0000	-0198.4	068.0	40.06
050.0	000.0750	0086.5	008.9		190.4	006.0000	-0198.2	068.3	40.01
051.0	000.0750	0084.5	008.8		190.3	006.0000	-0198.5	068.4	39.98
052.0	000.0750	0085.3	008.9		190.2	006.0000	-0199.3	068.5	39.96
053.0	000.0750	0087.5	009.0		190.0	006.0000	-0200.3	068.5	39.96
054.0	000.0750	0089.4	009.1		189.9	006.0000	-0201.3	068.6	39.95
055.0	000.0750	0089.7	009.1		189.8	006.0000	-0202.1	068.7	39.94
056.0	000.0750	0089.0	009.1		189.7	006.0000	-0202.6	068.8	39.91
057.0	000.0750	0087.0	009.0		189.7	006.0000	-0202.8	069.0	39.88
058.0	000.0750	0085.4	008.9		189.7	006.0000	-0203.1	069.2	39.85
059.0	000.0750	0084.5	008.8		189.6	006.0000	-0203.6	069.3	39.82
060.0	000.0750	0083.7	008.8		189.6	006.0000	-0204.1	069.5	39.79
061.0	000.0750	0083.0	008.7		189.5	006.0000	-0204.6	069.6	39.77
062.0	000.0750	0083.9	008.8		189.4	006.0000	-0205.7	069.7	39.75
063.0	000.0750	0086.5	008.9		189.2	006.0000	-0207.7	069.7	39.74
064.0	000.0750	0089.8	009.1		189.0	006.0000	-0210.0	069.8	39.74
065.0	000.0750	0093.3	009.3		188.8	006.0000	-0212.5	069.8	39.73
066.0	000.0750	0099.3	009.6		188.6	006.0000	-0216.0	069.8	39.74
067.0	000.0750	0105.7	009.9		188.3	006.0000	-0219.4	069.8	39.74
068.0	000.0750	0110.8	010.1		188.0	006.0000	-0222.0	069.8	39.73
069.0	000.0750	0114.3	010.3		187.9	006.0000	-0223.9	069.9	39.72
070.0	000.0750	0118.2	010.4		187.7	006.0000	-0225.7	070.0	39.70
071.0	000.0750	0123.0	010.6		187.5	006.0000	-0227.6	070.0	39.69
072.0	000.0750	0128.5	010.8		187.2	006.0000	-0229.5	070.1	39.68
073.0	000.0750	0132.1	011.0		187.1	006.0000	-0230.7	070.2	39.66
074.0	000.0750	0135.0	011.1		186.9	006.0000	-0231.7	070.4	39.63

RF Hazard Study

The proposed facility would be the sole FM Broadcast facility at this site. Utilizing the FCC FM Model shows that the power density from the proposed 3-bay type #3 antenna with an effective radiated power of 6.0 kW and COR of 20 m A.G. would produce $0.130341732401 \mu\text{W}.\text{cm}^2$ at 9m from the tower base. Note that there is no point along the graph where the power density exceeds the maximum allowed under the rules ($1,000 \mu\text{W}.\text{cm}^2$). The applicant will reduce power or terminate transmissions when necessary to protect the public or workers on or near the tower.



Distance (m)	Power Density ($\mu\text{W}/\text{cm}^2$)
0	0.0
1	0.0
2	0.0
3	0.1
4	0.1
5	0.1
6	0.1
7	0.1
8	0.1
9	0.1
10	0.1
11	0.1
12	0.1
13	0.1
14	0.1
15	0.0
16	0.0
17	0.0
18	0.0
19	0.0
20	0.0
21	0.0
22	0.0
23	0.0
24	0.0
25	0.0
26	0.0
27	0.0
28	0.0
29	0.0
30	0.0
31	0.0
32	0.0
33	0.0
34	0.0

35	0.0
36	0.0
37	0.0
38	0.0
39	0.0
40	0.0
41	0.0
42	0.0
43	0.0
44	0.0
45	0.0
46	0.0
47	0.0
48	0.0
49	0.0
50	0.0
51	0.0
52	0.0
53	0.0
54	0.0
55	0.0
56	0.0
57	0.0
58	0.0
59	0.0
60	0.0
61	0.0
62	0.0
63	0.0
64	0.0
65	0.0
66	0.0
67	0.0
68	0.0
69	0.0
70	0.0

71	0.0
72	0.0
73	0.0
74	0.0
75	0.0
76	0.0
77	0.0
78	0.0
79	0.0
80	0.0
81	0.0
82	0.0
83	0.0
84	0.0
85	0.0
86	0.0
87	0.0
88	0.0
89	0.0
90	0.0
91	0.0
92	0.0
93	0.0
94	0.0
95	0.0
96	0.0
97	0.0
98	0.0
99	0.0
100	0.0

HOW TO READ THE FM COMPUTER PRINT-OUT

The computer printout should be self-explanatory for the most part. The parameters of the station being checked, (reference station) are printed in the heading. Contour distances are in kilometers and are predicted using the Commission's TVFMINT FORTRAN subroutine. When interference contour distances are less than 16 kilometers the F(50-50) tables are used. If signal contour distances are less than 1.6 km the free-space equation is used.

The column listed "IN " is the difference in kilometers between of the reference station's protected contour and the data file station's interference contour at the closest point between the contours. (All distances are derived by the method detailed in Sec. 73.208 of the Rules and Regulations as amended in Docket 80-90.) Therefore, "IN" column is a measure of incoming interference. Negative distances in this column indicate the presence of contour overlap. Listed antenna heights and power are those given in the FCC database. The column labeled "OUT " shows the greatest distance in kilometers of overlap or smallest of clearance between the reference station's interference contour and the database station's protected contour. Negative distance figures in this column indicate outgoing contour overlap.

Under the "AZI" column, the first row of numbers indicate the True North bearings from the reference station toward the database stations, while the numbers in the second row indicate the reverse bearings from the database stations to the reference station.

The columns labeled "INT" and "PRO" contain the distance in kilometers of the appropriate interference contour and the protected contour of a data base station.

For I.F. relationships, some channel-six TV relationships and relationships with commercial channel stations providing clearance the minimum spacings values the "IN" and "OUT" columns can change their significance. The letter "R" stands for the minimum **required** distance in kilometers, while the letter "M" in the next column follows the **available clear space** (or lack of it) in kilometers. Minimum separation distances when displayed are taken from Sec 73.207 of the rules as amended. Canadian and Mexican separation distances, U/D ratios and protected contour values are from the US/Mexican Working Agreement and the US/Canada Working Agreement".

The call letters of stations meeting the minimum separation distances under the rules will be flagged by the characters "<<" appended to the right-hand side of the call sign. The "^" character appended to the call sign means the station has been "max-classed" according to the provisions of section 73.525 of the Rules.

The first three letters of the "TYPE" column identify the current FCC status of the stations. The fourth letter will be a "D" if the facility is directional. "Z" indicates a 73.215 directional. An "N" indicates it is a 73.215 station that operates with an omni-directional antenna. The fifth letter will be an E, H or V depending on the type of antenna polarization. The sixth letter will be a "Y" if the antenna uses beam tilt or an "X" if the commission is not sure, otherwise it will be an "N" or left blank.

Translator relationships with LPTV/Translators are calculated using the 62 dBu protected and the F(50-10) interference contour, as defined in section 74.1205 of the Rules.

Proposed Dubois Tower Site

N. Lat. 43-29-59.00

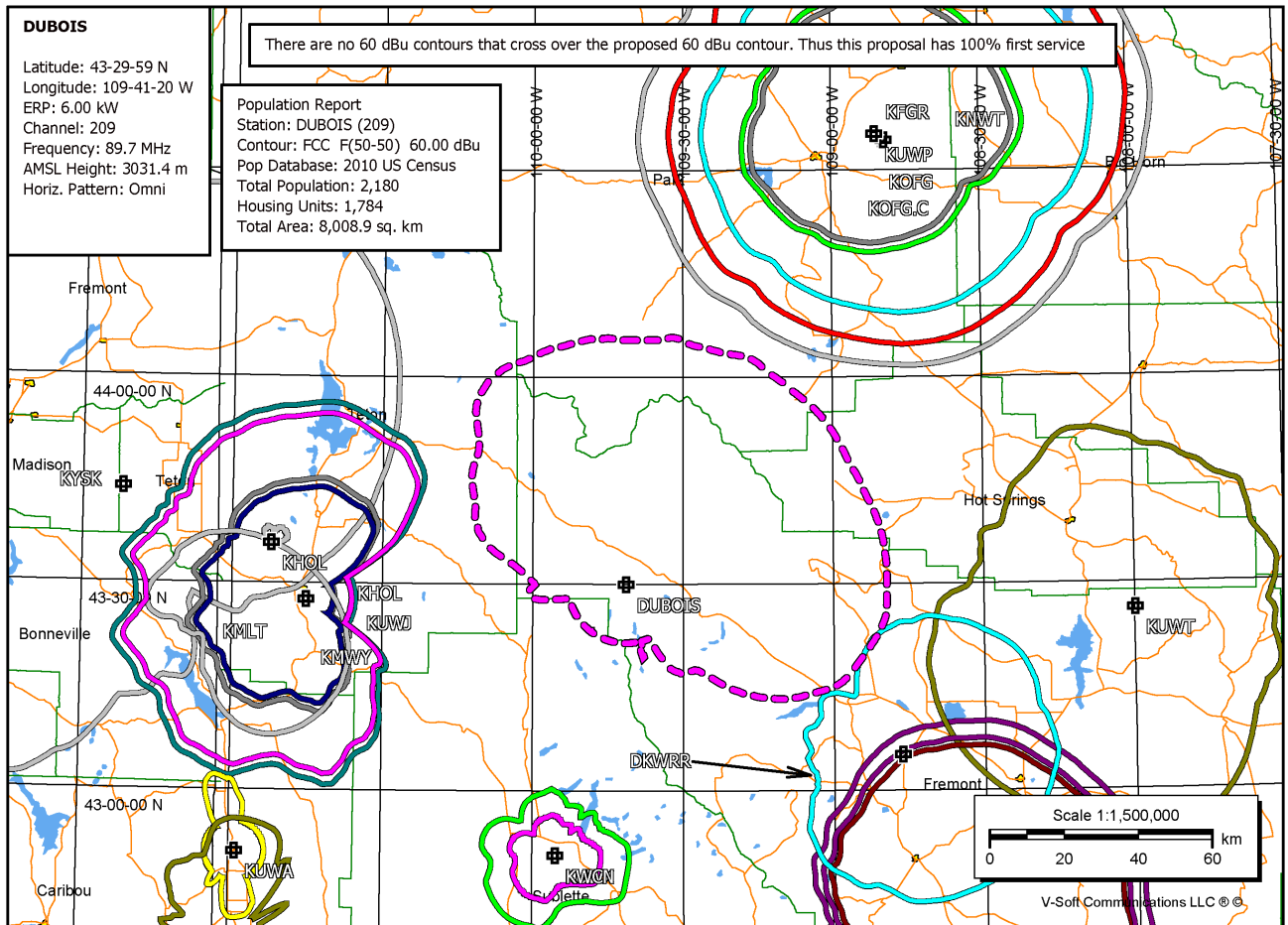
W. Long. 109-41-20.00

Base Elevation 3011.4 m



Site availability confirmation: DTE Communications, Paul Glenn, Agent,
(307)455-2341 (9/18/2021)

Service Count Population Count



Declaration:

I, Paul Montoya, declare that I have been active in broadcast engineering for over 45 years.

That, I have held a Federal Communications Commission First Class Radiotelephone License continually since 1977. In 1985, this license was reissued by the Commission as a lifetime General Radiotelephone license no. PG-15-10699.

That, I am certified as a Certified Senior Radio Engineer (#7040) by the Society of Broadcast Engineers, Indianapolis, Indiana.

That, my qualifications are a matter of record with the Federal Communications Commission.

That, I am employed by the University of Wyoming as Director of Engineering and have prepared the engineering showings appended hereto.

That, I have prepared these broadcast engineering showings, the technical information contained in same, and the facts stated within are true of my knowledge.

That, under penalty of perjury, I declare that the foregoing is correct.

Paul Montoya



Executed on November 1, 2021