Engineering Statement
University of Wyoming
11/4/2021
Alta, WY

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

Facility ID No: 762732

Geographic Coordinates: N. Lat. 43-43-53.0, W. Long. 111-20-59.3 (NAD 83)

Elevation at the site: 2596.5 m

Channel number: 210 (89.9 MHz)

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

Proposed Antenna COR: 2616.5 m AMSL, HAAT: 556.7 m

Tower height above ground: 20.0 m

Antenna Type: ERI MP-3E

ERP: 1.0 kW, circularly polarized

Page #2: Coverage map showing the 60 dBu contour. As shown on the map, the principal city of Alta, 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 #24: 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 # 25 through #28: 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 1.0 kW and COR of 20 m A.G. would produce 0.019291646189 $\mu W.cm^2$ at 9m from the tower base.

Page #29: Description of how the contour-to-contour channel study should be read and the abbreviations used therein.

Page #30: Site map showing the proposed Alta, WY site at the proposed coordinates.

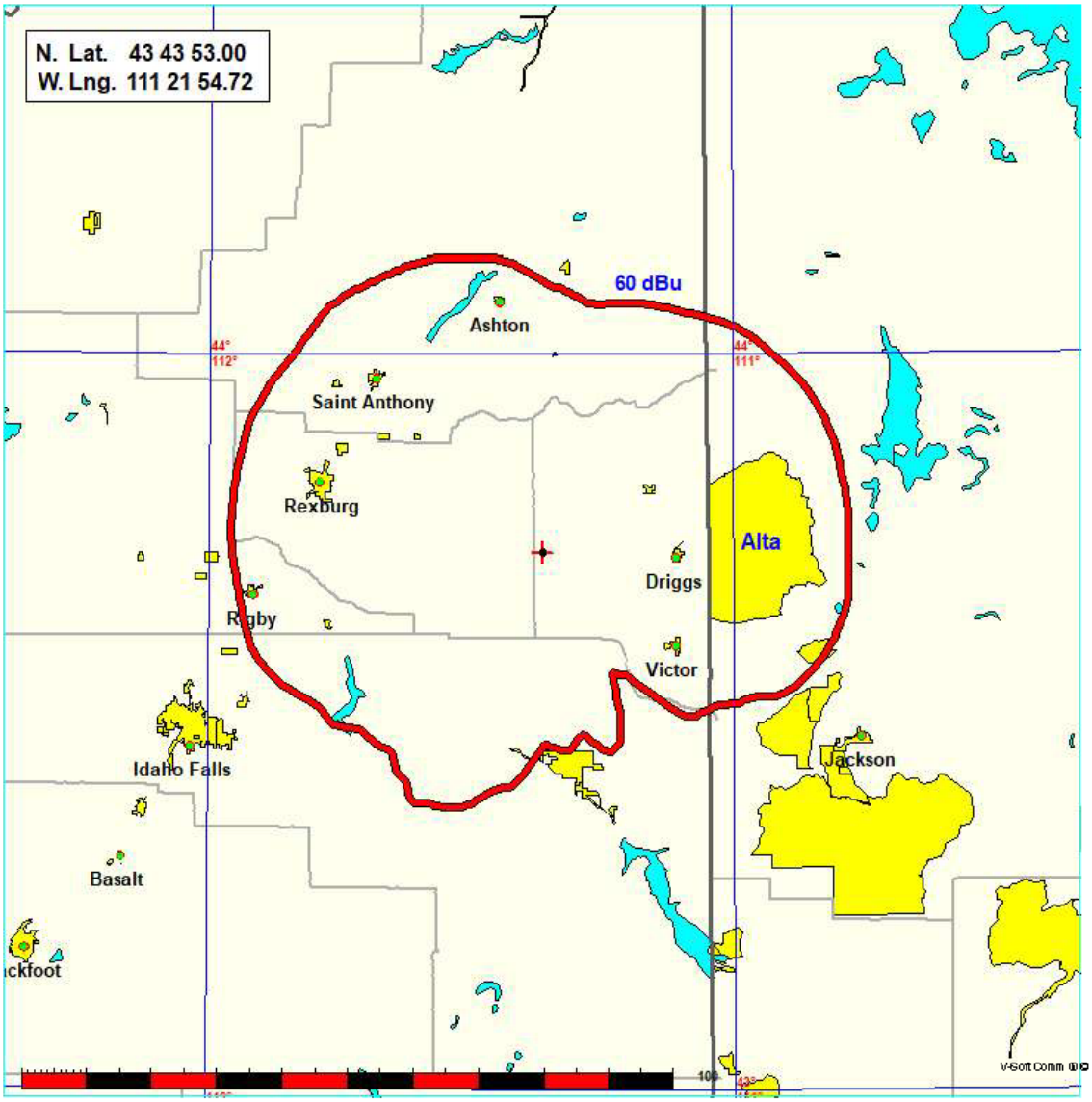
Page #31: Service Count Population report.

Page #32: Exhibit stating the qualifications of the preparer.

Alta, WY
University Of Wyoming

Coverage Study - GLOBE 30 Sec
11-04-2021

Alta CH210 C2, 1.0 kW, 556.7m HAAT, 2616.5m COR AMSL
Service Contour = 60 dBu.



Total Area within 60dBu Contour: 4954 km

Alta, WY
University Of Wyoming

REFERENCE CH# 209C2 - 89.7 MHz, Pwr= 6 kW, HAAT= 392.7 M, COR= 3031.4 M
43 29 59.00 N. Average Protected F(50-50)= 51.03 km
109 41 20.00 W. Omni-directional

DISPLAY DATES
DATA 10-25-21
SEARCH 11-04-21

CH CITY	CALL STATE	TYPE ANT <--	AZI DIST FILE #	LAT LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
210C3 Alta Alta	 WY	___ 99.4	280.6 135.77	43 42 41.90 111 20 59.31	0.888 505	69.7 2594	44.9 User	20.8	26.6
210A KWCN Pinedale	LIC WY	_CN 14.6	194.7 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 KHOL Jackson	LIC WY	_CN 86.8	267.5 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 KUWJ Jackson	LIC WY	_CN 86.8	267.5 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.

KAIO LIC 213 A Dom 0.500 kW 161 m HAAT MVN
Idaho Falls ID 1708.0 m COR AMSL -
Lat = 43 32 36.60, Lng = 111 53 09.80 - NAD 83
Educational Media Foundation
Fac ID# 94211 BMLED20150826ABB
Dist = 46.83 km, Azi = 243.7°, Rev Azi =63.3°

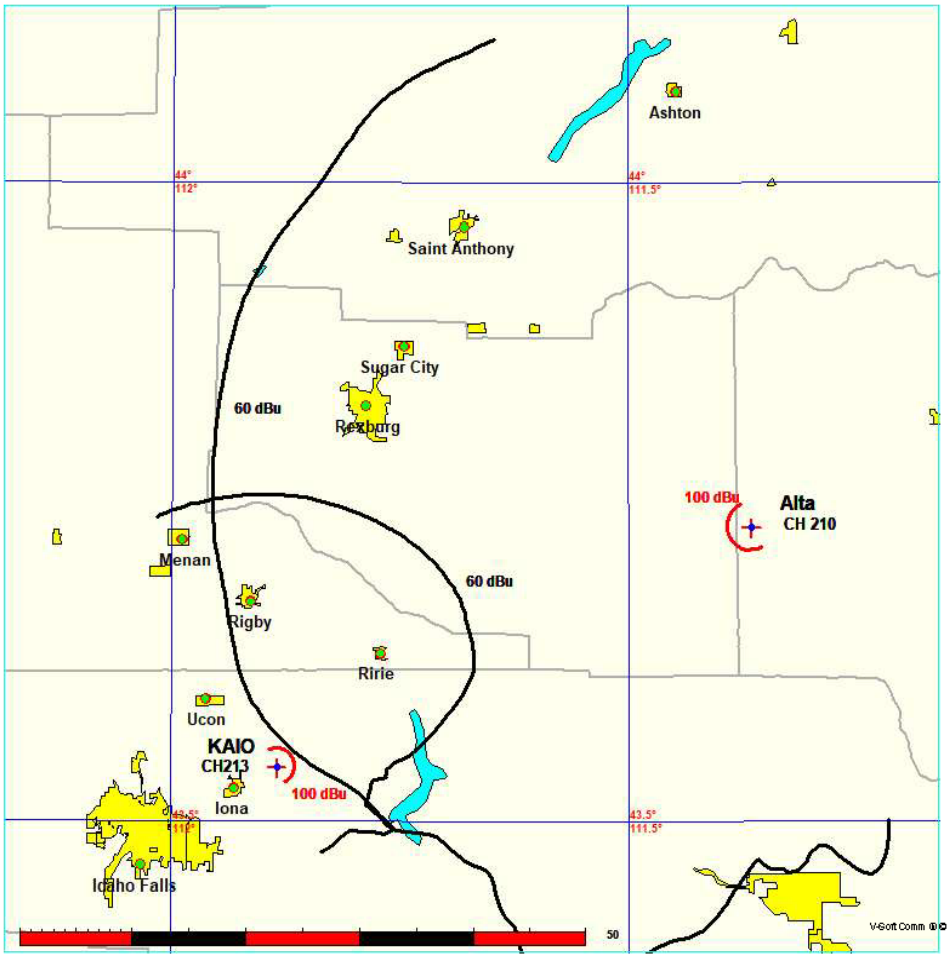
Reference's Greatest Overlaps: (In = 0.44, Out = 24.29)
Toward Ref: HAAT = 154.0m, 0.5 kW
Toward Ref: 60 dBu Protected = 19.4 km, Int = 1.57 km
Direct line Ref. Protected Contour = 44.7 km, Int = 2.15 km

Alta, WY
University Of Wyoming

FMCommander Single Allocation Study - 11-04-2021 - GLOBE 30 Sec
Alta's Overlaps (In= 0.58 km, Out= 25.27 km)

Alta CH 210 C2
Lat= 43 43 53.00, Lng= 111 21 54.72
1.0 kW 556.7 m HAAT, 2616.5 m COR
Prot.= 60 dBu, Intef.= 100 dBu

KAIO CH 213 A BMLED20150826ABB
Lat= 43 32 36.60, Lng= 111 53 09.80
0.5 kW 161 m HAAT, 1708 m COR
Prot.= 60 dBu, Intef.= 100 dBu



11-04-2021 Terrain Data: GLOBE 30 Sec FMOver Analysis

Alta	KAIO BMLED20150826ABB
Channel = 210C2	Channel = 213A
Max ERP = 1 kW	Max ERP = 0.5 kW
RCAMSL = 2616.5 m	RCAMSL = 1708 m
N. Lat. 43 43 53.00	N. Lat. 43 32 36.60
W. Lng. 111 21 54.72	W. Lng. 111 53 09.80
Protected	Interfering
60 dBu	100 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
184.0	001.0000	0331.4	032.9	106.5	000.5000	0018.4	041.5	35.07	
185.0	001.0000	0351.2	033.9	108.1	000.5000	0019.3	041.1	35.17	
186.0	001.0000	0368.3	034.7	109.4	000.5000	0024.9	040.7	35.29	
187.0	001.0000	0383.9	035.4	110.5	000.5000	0028.4	040.3	35.42	
188.0	001.0000	0396.2	035.9	111.4	000.5000	0029.5	039.8	35.58	
189.0	001.0000	0406.6	036.3	112.2	000.5000	0029.5	039.3	35.74	
190.0	001.0000	0410.7	036.4	112.6	000.5000	0029.5	038.7	35.93	
191.0	001.0000	0415.8	036.7	113.2	000.5000	0030.2	038.1	36.16	
192.0	001.0000	0426.5	037.1	114.0	000.5000	0032.8	037.6	36.90	
193.0	001.0000	0439.3	037.6	115.0	000.5000	0038.9	037.1	38.32	
194.0	001.0000	0453.3	038.2	116.2	000.5000	0048.3	036.6	40.26	
195.0	001.0000	0468.7	038.9	117.4	000.5000	0055.3	036.1	41.58	
196.0	001.0000	0484.7	039.6	118.8	000.5000	0055.7	035.6	41.84	
197.0	001.0000	0497.3	040.2	119.9	000.5000	0053.7	035.0	41.77	
198.0	001.0000	0509.0	040.7	121.1	000.5000	0052.9	034.4	41.88	
199.0	001.0000	0517.4	041.1	122.0	000.5000	0051.3	033.8	41.87	
200.0	001.0000	0521.7	041.3	122.6	000.5000	0049.6	033.2	41.85	
201.0	001.0000	0524.9	041.4	123.1	000.5000	0047.2	032.5	41.71	
202.0	001.0000	0529.9	041.7	123.8	000.5000	0044.4	031.9	41.46	
203.0	001.0000	0532.8	041.8	124.3	000.5000	0042.7	031.2	41.43	
204.0	001.0000	0532.9	041.8	124.6	000.5000	0042.1	030.5	41.65	
205.0	001.0000	0537.7	042.1	125.3	000.5000	0041.0	029.8	41.77	
206.0	001.0000	0547.9	042.5	126.5	000.5000	0039.3	029.1	41.76	
207.0	001.0000	0555.0	042.8	127.3	000.5000	0037.7	028.5	41.78	
208.0	001.0000	0552.4	042.7	127.4	000.5000	0037.6	027.7	42.21	
209.0	001.0000	0541.2	042.2	126.6	000.5000	0039.1	026.9	43.03	
210.0	001.0000	0523.8	041.4	125.0	000.5000	0041.4	026.1	44.05	
211.0	001.0000	0509.9	040.7	123.7	000.5000	0044.9	025.3	45.28	
212.0	001.0000	0503.3	040.4	123.0	000.5000	0047.6	024.6	46.32	
213.0	001.0000	0499.9	040.3	122.7	000.5000	0049.1	023.9	47.12	
214.0	001.0000	0492.9	040.0	121.9	000.5000	0051.5	023.2	48.07	
215.0	001.0000	0481.8	039.5	120.6	000.5000	0053.3	022.5	48.88	
216.0	001.0000	0467.3	038.8	118.8	000.5000	0055.7	021.9	49.77	
217.0	001.0000	0455.8	038.3	117.2	000.5000	0054.6	021.3	50.06	
218.0	001.0000	0451.0	038.1	116.3	000.5000	0049.4	020.7	49.65	
219.0	001.0000	0453.7	038.2	116.2	000.5000	0048.9	020.0	50.10	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
220.0	001.0000	0459.2	038.5	116.5	000.5000	0050.7	019.3	51.02
221.0	001.0000	0463.0	038.7	116.5	000.5000	0050.7	018.6	51.61
222.0	001.0000	0463.8	038.7	116.1	000.5000	0047.3	018.0	51.50
223.0	001.0000	0464.9	038.7	115.6	000.5000	0043.3	017.3	51.24
224.0	001.0000	0465.5	038.8	115.0	000.5000	0038.3	016.7	50.66
225.0	001.0000	0465.4	038.8	114.2	000.5000	0033.5	016.0	50.02
226.0	001.0000	0468.4	038.9	113.7	000.5000	0031.6	015.3	50.14
227.0	001.0000	0476.5	039.2	114.0	000.5000	0032.7	014.6	51.15
228.0	001.0000	0488.9	039.8	115.0	000.5000	0038.4	013.7	53.54
229.0	001.0000	0504.0	040.5	116.5	000.5000	0050.9	012.8	57.38
230.0	001.0000	0516.6	041.1	117.8	000.5000	0056.0	011.9	59.55
231.0	001.0000	0523.8	041.4	118.0	000.5000	0056.2	011.1	60.84
232.0	001.0000	0525.5	041.5	116.9	000.5000	0053.0	010.4	61.48
233.0	001.0000	0524.4	041.4	114.8	000.5000	0036.9	009.8	59.24
234.0	001.0000	0524.0	041.4	112.5	000.5000	0029.5	009.2	58.69
235.0	001.0000	0526.1	041.5	110.6	000.5000	0028.6	008.5	59.93
236.0	001.0000	0529.9	041.7	108.6	000.5000	0021.6	007.8	61.28
237.0	001.0000	0534.6	041.9	106.5	000.5000	0018.4	007.1	62.90
238.0	001.0000	0542.0	042.3	104.6	000.5000	0024.0	006.4	64.90
239.0	001.0000	0552.4	042.7	102.7	000.5000	0023.7	005.5	67.41
240.0	001.0000	0564.6	043.2	100.4	000.5000	0023.7	004.6	70.31
241.0	001.0000	0575.9	043.7	096.1	000.5000	0039.8	003.8	76.22
242.0	001.0000	0586.2	044.1	088.5	000.5000	0045.1	003.0	81.16
243.0	001.0000	0595.6	044.4	075.9	000.5000	0093.9	002.5	90.60
244.0	001.0000	0605.1	044.8	056.5	000.5000	0171.4	002.1	95.77
245.0	001.0000	0614.3	045.1	032.4	000.5000	0216.2	002.0	96.64
246.0	001.0000	0622.8	045.4	011.5	000.5000	0229.0	002.3	95.21
247.0	001.0000	0630.7	045.7	357.8	000.5000	0236.0	002.9	92.76
248.0	001.0000	0637.9	046.0	349.4	000.5000	0238.5	003.6	90.16
249.0	001.0000	0644.7	046.2	344.2	000.5000	0241.0	004.4	87.68
250.0	001.0000	0651.1	046.4	340.9	000.5000	0243.0	005.2	85.53
251.0	001.0000	0656.8	046.6	338.9	000.5000	0243.8	006.0	83.50
252.0	001.0000	0660.8	046.8	337.9	000.5000	0244.2	006.8	81.62
253.0	001.0000	0662.7	046.8	337.9	000.5000	0244.2	007.6	79.87
254.0	001.0000	0663.4	046.9	338.2	000.5000	0244.1	008.4	78.29
255.0	001.0000	0663.5	046.9	338.7	000.5000	0243.8	009.2	76.79
256.0	001.0000	0663.1	046.9	339.3	000.5000	0243.6	010.0	75.34
257.0	001.0000	0661.6	046.8	340.1	000.5000	0243.3	010.9	73.96
258.0	001.0000	0661.4	046.8	340.6	000.5000	0243.1	011.7	72.65
259.0	001.0000	0661.9	046.8	341.1	000.5000	0242.9	012.5	71.41
260.0	001.0000	0662.1	046.8	341.5	000.5000	0242.7	013.3	70.25
261.0	001.0000	0662.4	046.8	342.0	000.5000	0242.4	014.1	69.18
262.0	001.0000	0662.1	046.8	342.5	000.5000	0242.1	014.9	68.19
263.0	001.0000	0662.5	046.8	343.0	000.5000	0241.8	015.7	67.75
264.0	001.0000	0663.8	046.9	343.3	000.5000	0241.6	016.5	67.05
265.0	001.0000	0666.0	047.0	343.6	000.5000	0241.4	017.3	66.36
266.0	001.0000	0668.7	047.0	343.8	000.5000	0241.3	018.2	65.67
267.0	001.0000	0672.4	047.2	343.9	000.5000	0241.2	019.0	64.98
268.0	001.0000	0675.2	047.3	344.2	000.5000	0241.0	019.8	64.31
269.0	001.0000	0677.8	047.4	344.5	000.5000	0240.8	020.6	63.64
270.0	001.0000	0679.3	047.4	344.9	000.5000	0240.6	021.5	62.99

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
271.0	001.0000	0680.7	047.5	345.4	000.5000	0240.4	022.3	62.35
272.0	001.0000	0682.1	047.5	345.8	000.5000	0240.2	023.1	61.72
273.0	001.0000	0683.7	047.6	346.3	000.5000	0239.9	023.9	61.11
274.0	001.0000	0685.7	047.6	346.7	000.5000	0239.7	024.7	60.50
275.0	001.0000	0687.4	047.7	347.1	000.5000	0239.5	025.5	59.91
276.0	001.0000	0688.6	047.7	347.6	000.5000	0239.2	026.3	59.35
277.0	001.0000	0689.6	047.8	348.1	000.5000	0239.0	027.1	58.80
278.0	001.0000	0690.8	047.8	348.6	000.5000	0238.8	027.9	58.27
279.0	001.0000	0692.5	047.9	349.0	000.5000	0238.6	028.7	57.75
280.0	001.0000	0694.7	047.9	349.4	000.5000	0238.4	029.6	57.26
281.0	001.0000	0697.1	048.0	349.8	000.5000	0238.3	030.4	56.78
282.0	001.0000	0699.6	048.1	350.3	000.5000	0238.2	031.2	56.33
283.0	001.0000	0701.5	048.2	350.7	000.5000	0238.1	032.0	55.90
284.0	001.0000	0703.4	048.2	351.2	000.5000	0238.0	032.8	55.49
285.0	001.0000	0705.0	048.3	351.6	000.5000	0237.9	033.6	55.09
286.0	001.0000	0706.7	048.3	352.1	000.5000	0237.9	034.4	54.69
287.0	001.0000	0708.7	048.4	352.6	000.5000	0237.8	035.2	54.30
288.0	001.0000	0710.8	048.5	353.0	000.5000	0237.7	036.0	53.91
289.0	001.0000	0713.1	048.6	353.5	000.5000	0237.6	036.8	53.52
290.0	001.0000	0715.8	048.7	353.9	000.5000	0237.5	037.6	53.13
291.0	001.0000	0718.8	048.7	354.4	000.5000	0237.3	038.4	52.75
292.0	001.0000	0721.4	048.8	354.8	000.5000	0237.2	039.2	52.37
293.0	001.0000	0723.5	048.9	355.3	000.5000	0237.0	040.0	52.00
294.0	001.0000	0724.8	048.9	355.8	000.5000	0236.8	040.8	51.64
295.0	001.0000	0725.3	049.0	356.3	000.5000	0236.6	041.5	51.29
296.0	001.0000	0724.8	048.9	356.9	000.5000	0236.4	042.3	50.95
297.0	001.0000	0723.7	048.9	357.5	000.5000	0236.1	043.0	50.62
298.0	001.0000	0722.5	048.9	358.1	000.5000	0235.9	043.7	50.29
299.0	001.0000	0721.7	048.8	358.7	000.5000	0235.6	044.4	49.97
300.0	001.0000	0721.1	048.8	359.2	000.5000	0235.3	045.2	49.65
301.0	001.0000	0719.9	048.8	359.8	000.5000	0235.1	045.9	49.34
302.0	001.0000	0717.9	048.7	000.4	000.5000	0234.8	046.6	49.04
303.0	001.0000	0715.5	048.6	001.1	000.5000	0234.5	047.3	48.74

11-04-2021 Terrain Data: GLOBE 30 Sec FMOver Analysis

KAIO BMLED20150826ABB	Alta
Channel = 213A	Channel = 210C2
Max ERP = 0.5 kW	Max ERP = 1 kW
RCAMSL = 1708 m	RCAMSL = 2616.5 m
N. Lat. 43 32 36.60	N. Lat. 43 43 53.00
W. Lng. 111 53 09.80	W. Lng. 111 21 54.72
Protected	Interfering
60 dBu	100 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
003.0	000.5000	0233.7	023.6	274.0	001.0000	0685.6	040.7	64.96	
004.0	000.5000	0233.5	023.6	273.9	001.0000	0685.6	040.3	65.14	
005.0	000.5000	0233.1	023.6	273.9	001.0000	0685.5	039.9	65.32	
006.0	000.5000	0232.6	023.6	273.9	001.0000	0685.4	039.5	65.49	
007.0	000.5000	0232.0	023.5	273.8	001.0000	0685.3	039.0	65.67	
008.0	000.5000	0231.3	023.5	273.7	001.0000	0685.1	038.6	65.85	
009.0	000.5000	0230.5	023.5	273.6	001.0000	0684.9	038.2	66.03	
010.0	000.5000	0229.9	023.4	273.5	001.0000	0684.7	037.8	66.20	
011.0	000.5000	0229.3	023.4	273.3	001.0000	0684.4	037.4	66.38	
012.0	000.5000	0228.7	023.4	273.2	001.0000	0684.1	037.0	66.56	
013.0	000.5000	0228.0	023.3	273.0	001.0000	0683.8	036.6	66.73	
014.0	000.5000	0227.3	023.3	272.9	001.0000	0683.4	036.2	66.91	
015.0	000.5000	0226.7	023.3	272.7	001.0000	0683.1	035.9	67.08	
016.0	000.5000	0226.1	023.2	272.5	001.0000	0682.7	035.5	67.25	
017.0	000.5000	0225.5	023.2	272.3	001.0000	0682.4	035.1	67.42	
018.0	000.5000	0224.9	023.2	272.1	001.0000	0682.1	034.7	67.60	
019.0	000.5000	0224.4	023.2	271.8	001.0000	0681.8	034.3	67.77	
020.0	000.5000	0223.9	023.1	271.6	001.0000	0681.5	033.9	67.94	
021.0	000.5000	0223.5	023.1	271.3	001.0000	0681.1	033.6	68.10	
022.0	000.5000	0223.0	023.1	271.0	001.0000	0680.7	033.2	68.27	
023.0	000.5000	0222.4	023.1	270.7	001.0000	0680.3	032.8	68.43	
024.0	000.5000	0221.7	023.0	270.4	001.0000	0679.8	032.5	68.59	
025.0	000.5000	0221.0	023.0	270.0	001.0000	0679.4	032.1	68.75	
026.0	000.5000	0220.5	023.0	269.7	001.0000	0678.9	031.8	68.91	
027.0	000.5000	0220.0	022.9	269.3	001.0000	0678.3	031.4	69.07	
028.0	000.5000	0219.5	022.9	268.9	001.0000	0677.6	031.1	69.22	
029.0	000.5000	0218.8	022.9	268.5	001.0000	0676.5	030.8	69.38	
030.0	000.5000	0218.1	022.8	268.0	001.0000	0675.3	030.5	69.52	
031.0	000.5000	0217.3	022.8	267.5	001.0000	0674.0	030.1	69.67	
032.0	000.5000	0216.5	022.8	267.1	001.0000	0672.6	029.8	69.81	
033.0	000.5000	0215.7	022.7	266.5	001.0000	0670.7	029.5	69.94	
034.0	000.5000	0215.0	022.7	266.0	001.0000	0668.8	029.2	70.07	
035.0	000.5000	0214.3	022.6	265.5	001.0000	0667.2	029.0	70.20	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
036.0	000.5000	0213.5	022.6	264.9	001.0000	0665.8	028.7	70.34
037.0	000.5000	0212.5	022.6	264.3	001.0000	0664.4	028.4	70.46
038.0	000.5000	0211.5	022.5	263.7	001.0000	0663.3	028.2	70.59
039.0	000.5000	0210.4	022.5	263.0	001.0000	0662.5	027.9	70.71
040.0	000.5000	0209.0	022.4	262.3	001.0000	0662.0	027.7	70.83
041.0	000.5000	0207.5	022.3	261.6	001.0000	0662.2	027.5	70.95
042.0	000.5000	0206.0	022.2	260.9	001.0000	0662.4	027.3	71.07
043.0	000.5000	0204.5	022.2	260.1	001.0000	0662.2	027.2	71.17
044.0	000.5000	0203.0	022.1	259.4	001.0000	0662.0	027.0	71.27
045.0	000.5000	0201.4	022.0	258.6	001.0000	0661.7	026.8	71.35
046.0	000.5000	0199.6	021.9	257.8	001.0000	0661.4	026.7	71.43
047.0	000.5000	0197.5	021.8	257.0	001.0000	0661.6	026.6	71.49
048.0	000.5000	0195.1	021.7	256.2	001.0000	0662.8	026.5	71.56
049.0	000.5000	0192.6	021.6	255.3	001.0000	0663.5	026.5	71.60
050.0	000.5000	0189.7	021.4	254.4	001.0000	0663.5	026.5	71.62
051.0	000.5000	0186.5	021.3	253.6	001.0000	0663.1	026.5	71.62
052.0	000.5000	0183.1	021.1	252.7	001.0000	0662.3	026.5	71.59
053.0	000.5000	0179.8	020.9	251.8	001.0000	0660.3	026.5	71.54
054.0	000.5000	0176.8	020.8	251.0	001.0000	0656.6	026.6	71.46
055.0	000.5000	0174.4	020.6	250.1	001.0000	0651.9	026.6	71.37
056.0	000.5000	0172.4	020.5	249.3	001.0000	0646.9	026.6	71.28
057.0	000.5000	0170.3	020.4	248.5	001.0000	0641.5	026.6	71.17
058.0	000.5000	0168.1	020.3	247.7	001.0000	0636.0	026.7	71.05
059.0	000.5000	0165.8	020.1	246.9	001.0000	0630.2	026.8	70.90
060.0	000.5000	0163.3	020.0	246.2	001.0000	0624.1	026.9	70.74
061.0	000.5000	0160.8	019.8	245.4	001.0000	0617.7	027.0	70.55
062.0	000.5000	0158.0	019.7	244.6	001.0000	0611.2	027.2	70.35
063.0	000.5000	0155.0	019.5	243.9	001.0000	0604.4	027.3	70.11
064.0	000.5000	0151.6	019.3	243.2	001.0000	0597.7	027.6	69.86
065.0	000.5000	0147.6	019.0	242.5	001.0000	0591.3	027.9	69.57
066.0	000.5000	0142.9	018.7	241.9	001.0000	0585.4	028.2	69.26
067.0	000.5000	0137.8	018.3	241.3	001.0000	0579.4	028.6	68.93
068.0	000.5000	0132.5	017.9	240.8	001.0000	0573.7	029.0	68.59
069.0	000.5000	0127.2	017.6	240.3	001.0000	0568.2	029.4	68.25
070.0	000.5000	0122.2	017.2	239.8	001.0000	0562.8	029.8	67.93
071.0	000.5000	0117.1	016.8	239.4	001.0000	0557.7	030.2	67.60
072.0	000.5000	0111.6	016.4	239.1	001.0000	0553.4	030.7	67.26
073.0	000.5000	0106.5	015.9	238.8	001.0000	0549.8	031.2	66.95
074.0	000.5000	0101.9	015.5	238.5	001.0000	0546.7	031.7	66.67
075.0	000.5000	0097.3	015.1	238.2	001.0000	0544.2	032.2	66.41
076.0	000.5000	0093.5	014.8	238.0	001.0000	0541.8	032.6	66.18
077.0	000.5000	0089.6	014.5	237.7	001.0000	0539.8	033.0	65.96
078.0	000.5000	0085.4	014.1	237.5	001.0000	0538.4	033.4	65.75
079.0	000.5000	0081.2	013.8	237.4	001.0000	0537.1	033.8	65.54
080.0	000.5000	0077.1	013.4	237.2	001.0000	0536.0	034.2	65.34
081.0	000.5000	0073.3	013.1	237.1	001.0000	0535.1	034.6	65.15
082.0	000.5000	0069.8	012.8	236.9	001.0000	0534.3	034.9	64.97
083.0	000.5000	0066.2	012.5	236.8	001.0000	0533.6	035.3	64.80
084.0	000.5000	0062.8	012.2	236.7	001.0000	0533.1	035.6	64.64
085.0	000.5000	0059.2	011.9	236.7	001.0000	0532.8	036.0	64.47
086.0	000.5000	0055.2	011.6	236.7	001.0000	0532.8	036.4	64.28

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
087.0	000.5000	0051.2	011.1	236.7	001.0000	0533.1	036.9	64.09
088.0	000.5000	0047.0	010.7	236.9	001.0000	0533.8	037.4	63.88
089.0	000.5000	0043.6	010.3	236.9	001.0000	0534.3	037.9	63.70
090.0	000.5000	0042.1	010.1	236.9	001.0000	0533.9	038.1	63.58
091.0	000.5000	0040.7	009.9	236.8	001.0000	0533.6	038.3	63.47
092.0	000.5000	0039.3	009.7	236.8	001.0000	0533.3	038.6	63.36
093.0	000.5000	0039.2	009.7	236.6	001.0000	0532.3	038.7	63.30
094.0	000.5000	0038.9	009.7	236.4	001.0000	0531.6	038.8	63.23
095.0	000.5000	0038.9	009.7	236.2	001.0000	0530.8	038.9	63.17
096.0	000.5000	0039.8	009.8	235.9	001.0000	0529.5	039.0	63.13
097.0	000.5000	0036.6	009.4	236.1	001.0000	0530.4	039.4	62.97
098.0	000.5000	0031.9	008.8	236.5	001.0000	0532.1	039.9	62.78
099.0	000.5000	0027.8	008.5	236.6	001.0000	0532.6	040.2	62.66
100.0	000.5000	0024.4	008.5	236.5	001.0000	0531.8	040.3	62.61
101.0	000.5000	0022.8	008.5	236.3	001.0000	0531.2	040.4	62.55
102.0	000.5000	0023.0	008.5	236.2	001.0000	0530.6	040.5	62.50
103.0	000.5000	0023.9	008.5	236.0	001.0000	0530.0	040.6	62.44
104.0	000.5000	0024.5	008.5	235.9	001.0000	0529.3	040.8	62.38
105.0	000.5000	0022.9	008.5	235.7	001.0000	0528.8	040.9	62.33
106.0	000.5000	0019.3	008.5	235.6	001.0000	0528.3	041.0	62.27
107.0	000.5000	0018.0	008.5	235.5	001.0000	0527.8	041.1	62.21
108.0	000.5000	0019.0	008.5	235.3	001.0000	0527.3	041.2	62.15
109.0	000.5000	0023.3	008.5	235.2	001.0000	0526.9	041.3	62.10
110.0	000.5000	0027.2	008.5	235.1	001.0000	0526.5	041.5	62.04
111.0	000.5000	0029.3	008.5	235.0	001.0000	0526.1	041.6	61.98
112.0	000.5000	0029.5	008.5	234.9	001.0000	0525.9	041.7	61.93
113.0	000.5000	0029.9	008.5	234.8	001.0000	0525.6	041.8	61.87
114.0	000.5000	0032.8	008.9	234.2	001.0000	0524.5	041.8	61.87
115.0	000.5000	0038.6	009.6	233.2	001.0000	0524.2	041.6	61.96
116.0	000.5000	0046.8	010.6	231.9	001.0000	0525.6	041.3	62.11
117.0	000.5000	0053.7	011.4	230.8	001.0000	0522.6	041.1	62.11
118.0	000.5000	0056.2	011.7	230.3	001.0000	0519.7	041.2	62.01
119.0	000.5000	0055.3	011.6	230.3	001.0000	0519.8	041.4	61.93
120.0	000.5000	0053.6	011.4	230.5	001.0000	0520.7	041.7	61.84
121.0	000.5000	0052.9	011.3	230.5	001.0000	0520.7	041.9	61.76
122.0	000.5000	0051.2	011.1	230.6	001.0000	0521.8	042.1	61.68

KBYA LIC 210 A Dom 0.680 kW 80 m HAAT MCN
Afton WY 2276.0 m COR AMSL -
Lat = 42 37 57.70, Lng = 110 59 30.70 - NAD 83
Brigham Young University - Idaho
Fac ID# 173939 BLED20111006ACE
Dist = 125.85 km, Azi = 166.0°, Rev Azi =346.2°

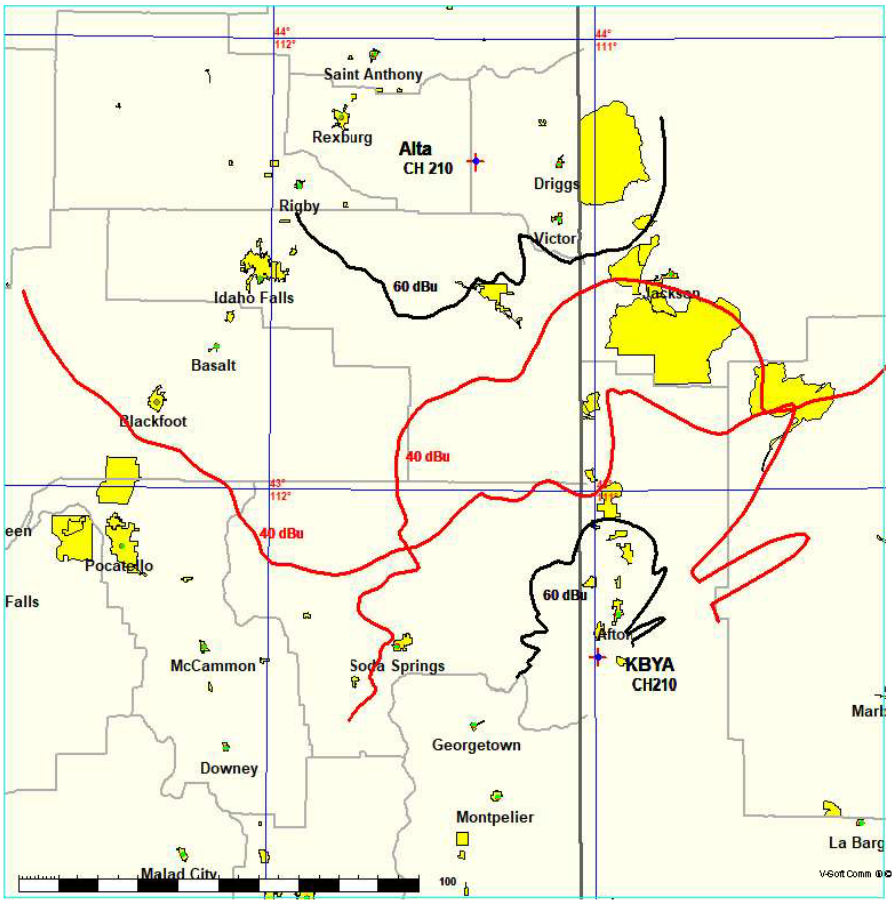
Reference's Greatest Overlaps: (In = 7.29, Out = 6.25)
Toward Ref: HAAT = 234.2m, 0.68 kW
Toward Ref: 60 dBu Protected = 25.4 km, Int = 74.36 km
Direct line Ref. Protected Contour = 29.1 km, Int = 81.98 km
Direct line Ref. HAAT = 259.4 meters, 1.0 kW

Alta, WY
University Of Wyoming

FMCommander Single Allocation Study - 11-07-2021 - GLOBE 30 Sec
Alta's Overlaps (In= 7.29 km, Out= 6.25 km)

Alta CH 210 C2
Lat= 43 43 53.00, Lng= 111 21 54.72
1.0 kW 556.7 m HAAT, 2616.5 m COR
Prot.= 60 dBu, Intef.= 40 dBu

KBYA CH 210 A BLED20111006ACE
Lat= 42 37 57.70, Lng= 110 59 30.70
0.68 kW 80 m HAAT, 2276 m COR
Prot.= 60 dBu, Intef.= 40 dBu



11-07-2021 Terrain Data: GLOBE 30 Sec FMOver Analysis

Alta	KBYA BLED20111006ACE
Channel = 210C2	Channel = 210A
Max ERP = 1 kW	Max ERP = 0.68 kW
RCAMSL = 2616.5 m	RCAMSL = 2276 m
N. Lat. 43 43 53.00	N. Lat. 42 37 57.70
W. Lng. 111 21 54.72	W. Lng. 110 59 30.70
Protected	Interfering
60 dBu	40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
106.0	001.0000	0654.6	046.6	007.7	000.6800	0424.4	110.2	35.14	
107.0	001.0000	0651.2	046.4	007.5	000.6800	0424.4	109.4	35.34	
108.0	001.0000	0646.6	046.3	007.4	000.6800	0424.5	108.6	35.55	
109.0	001.0000	0640.7	046.1	007.2	000.6800	0424.6	107.9	35.75	
110.0	001.0000	0634.5	045.8	007.0	000.6800	0424.6	107.1	35.94	
111.0	001.0000	0628.5	045.6	006.8	000.6800	0424.8	106.4	36.14	
112.0	001.0000	0621.9	045.4	006.5	000.6800	0424.9	105.7	36.33	
113.0	001.0000	0614.9	045.1	006.3	000.6800	0425.2	105.0	36.53	
114.0	001.0000	0607.5	044.9	006.0	000.6800	0425.5	104.4	36.72	
115.0	001.0000	0599.5	044.6	005.7	000.6800	0425.7	103.7	36.90	
116.0	001.0000	0591.3	044.3	005.4	000.6800	0425.9	103.1	37.08	
117.0	001.0000	0582.9	044.0	005.1	000.6800	0426.1	102.5	37.25	
118.0	001.0000	0574.1	043.6	004.7	000.6800	0426.1	101.9	37.41	
119.0	001.0000	0564.2	043.2	004.4	000.6800	0426.1	101.4	37.56	
120.0	001.0000	0553.1	042.8	003.9	000.6800	0426.0	100.9	37.69	
121.0	001.0000	0539.5	042.1	003.4	000.6800	0425.7	100.5	37.78	
122.0	001.0000	0522.4	041.3	002.8	000.6800	0425.0	100.3	37.83	
123.0	001.0000	0502.3	040.4	002.2	000.6800	0423.6	100.1	37.83	
124.0	001.0000	0482.2	039.5	001.5	000.6800	0420.9	100.0	37.78	
125.0	001.0000	0465.5	038.8	001.0	000.6800	0417.4	099.9	37.72	
126.0	001.0000	0453.0	038.2	000.5	000.6800	0414.4	099.6	37.70	
127.0	001.0000	0444.0	037.8	000.1	000.6800	0411.8	099.3	37.71	
128.0	001.0000	0433.2	037.4	359.6	000.6800	0409.0	099.1	37.69	
129.0	001.0000	0418.3	036.8	359.1	000.6800	0405.8	099.0	37.62	
130.0	001.0000	0402.3	036.1	358.6	000.6800	0402.4	098.9	37.53	
131.0	001.0000	0389.6	035.6	358.1	000.6800	0399.4	098.8	37.47	
132.0	001.0000	0380.8	035.2	357.7	000.6800	0396.5	098.6	37.44	
133.0	001.0000	0374.0	035.0	357.4	000.6800	0393.9	098.4	37.42	
134.0	001.0000	0368.2	034.7	357.0	000.6800	0391.4	098.1	37.41	
135.0	001.0000	0364.2	034.5	356.7	000.6800	0388.8	097.9	37.41	
136.0	001.0000	0361.8	034.4	356.4	000.6800	0386.4	097.5	37.42	
137.0	001.0000	0357.2	034.2	356.0	000.6800	0383.5	097.3	37.38	
138.0	001.0000	0345.5	033.6	355.5	000.6800	0379.4	097.4	37.23	
139.0	001.0000	0324.2	032.5	354.9	000.6800	0373.1	098.0	36.87	
140.0	001.0000	0295.4	031.0	354.1	000.6800	0365.4	098.9	36.36	
141.0	001.0000	0262.1	029.2	353.3	000.6800	0356.8	100.1	35.73	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
142.0	001.0000	0229.5	027.5	352.5	000.6800	0346.4	101.4	35.01
143.0	001.0000	0201.9	025.8	351.8	000.6800	0335.7	102.6	34.27
144.0	001.0000	0178.2	024.4	351.3	000.6800	0325.8	103.6	33.61
145.0	001.0000	0158.6	023.2	350.8	000.6800	0315.6	104.5	32.97
146.0	001.0000	0147.4	022.4	350.4	000.6800	0307.2	105.1	32.54
147.0	001.0000	0145.4	022.3	350.2	000.6800	0302.0	105.0	32.40
148.0	001.0000	0141.8	022.0	349.9	000.6800	0296.5	105.1	32.21
149.0	001.0000	0133.3	021.4	349.6	000.6800	0289.7	105.6	31.88
150.0	001.0000	0130.2	021.2	349.4	000.6800	0284.9	105.7	31.71
151.0	001.0000	0141.3	022.0	349.3	000.6800	0283.8	104.8	31.95
152.0	001.0000	0164.2	023.5	349.4	000.6800	0284.9	103.2	32.46
153.0	001.0000	0190.4	025.1	349.4	000.6800	0285.4	101.5	32.98
154.0	001.0000	0217.0	026.7	349.4	000.6800	0285.3	099.9	33.48
155.0	001.0000	0242.8	028.2	349.3	000.6800	0284.2	098.3	33.94
156.0	001.0000	0265.6	029.4	349.2	000.6800	0281.8	097.0	34.27
157.0	001.0000	0283.8	030.4	349.0	000.6800	0278.2	095.9	34.49
158.0	001.0000	0297.5	031.1	348.8	000.6800	0273.9	095.1	34.60
159.0	001.0000	0308.2	031.7	348.5	000.6800	0269.3	094.5	34.66
160.0	001.0000	0314.7	032.0	348.2	000.6800	0264.5	094.1	34.64
161.0	001.0000	0315.4	032.0	347.9	000.6800	0259.8	094.0	34.53
162.0	001.0000	0310.0	031.8	347.5	000.6800	0255.0	094.2	34.31
163.0	001.0000	0300.3	031.2	347.2	000.6800	0250.0	094.7	34.01
164.0	001.0000	0288.0	030.6	346.8	000.6800	0244.5	095.3	33.65
165.0	001.0000	0273.7	029.8	346.5	000.6800	0239.0	096.0	33.24
166.0	001.0000	0258.7	029.1	346.2	000.6800	0234.0	096.8	32.84
167.0	001.0000	0249.2	028.5	345.9	000.6800	0229.3	097.3	32.52
168.0	001.0000	0247.0	028.4	345.6	000.6800	0224.9	097.4	32.34
169.0	001.0000	0251.8	028.7	345.3	000.6800	0220.7	097.2	32.26
170.0	001.0000	0259.2	029.1	345.0	000.6800	0216.7	096.9	32.24
171.0	001.0000	0272.1	029.8	344.7	000.6800	0213.2	096.2	32.30
172.0	001.0000	0280.5	030.2	344.3	000.6800	0210.6	095.9	32.32
173.0	001.0000	0283.6	030.4	344.0	000.6800	0209.1	095.8	32.29
174.0	001.0000	0282.8	030.3	343.7	000.6800	0208.3	095.9	32.23
175.0	001.0000	0277.5	030.0	343.4	000.6800	0208.0	096.3	32.10
176.0	001.0000	0275.0	029.9	343.1	000.6800	0207.9	096.5	32.03
177.0	001.0000	0274.4	029.9	342.8	000.6800	0208.0	096.7	31.99
178.0	001.0000	0269.2	029.6	342.6	000.6800	0208.1	097.1	31.87
179.0	001.0000	0258.5	029.0	342.4	000.6800	0208.3	097.8	31.67
180.0	001.0000	0268.3	029.6	342.0	000.6800	0208.9	097.4	31.80
181.0	001.0000	0281.6	030.3	341.6	000.6800	0209.8	096.9	31.97
182.0	001.0000	0296.3	031.0	341.1	000.6800	0211.2	096.4	32.18
183.0	001.0000	0311.8	031.8	340.6	000.6800	0213.2	095.9	32.42
184.0	001.0000	0331.4	032.9	340.1	000.6800	0216.4	095.1	32.75
185.0	001.0000	0351.2	033.9	339.5	000.6800	0220.2	094.4	33.09
186.0	001.0000	0368.3	034.7	338.9	000.6800	0224.0	094.0	33.36
187.0	001.0000	0383.9	035.4	338.4	000.6800	0227.2	093.7	33.56
188.0	001.0000	0396.2	035.9	337.9	000.6800	0229.8	093.6	33.69
189.0	001.0000	0406.6	036.3	337.5	000.6800	0232.2	093.5	33.78
190.0	001.0000	0410.7	036.4	337.1	000.6800	0234.0	093.7	33.78
191.0	001.0000	0415.8	036.7	336.7	000.6800	0235.5	093.9	33.77
192.0	001.0000	0426.5	037.1	336.2	000.6800	0237.1	093.9	33.82

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
193.0	001.0000	0439.3	037.6	335.7	000.6800	0238.3	093.9	33.87
194.0	001.0000	0453.3	038.2	335.2	000.6800	0239.1	093.8	33.92
195.0	001.0000	0468.7	038.9	334.6	000.6800	0239.2	093.8	33.94
196.0	001.0000	0484.7	039.6	334.0	000.6800	0238.5	093.7	33.95
197.0	001.0000	0497.3	040.2	333.4	000.6800	0237.5	093.7	33.89
198.0	001.0000	0509.0	040.7	332.9	000.6800	0236.3	093.9	33.82
199.0	001.0000	0517.4	041.1	332.4	000.6800	0235.7	094.1	33.72
200.0	001.0000	0521.7	041.3	332.0	000.6800	0235.6	094.5	33.60
201.0	001.0000	0524.9	041.4	331.7	000.6800	0235.7	094.9	33.46
202.0	001.0000	0529.9	041.7	331.3	000.6800	0236.3	095.3	33.36
203.0	001.0000	0532.8	041.8	331.0	000.6800	0236.9	095.8	33.23
204.0	001.0000	0532.9	041.8	330.7	000.6800	0237.3	096.4	33.06
205.0	001.0000	0537.7	042.1	330.3	000.6800	0238.0	096.9	32.94
206.0	001.0000	0547.9	042.5	329.9	000.6800	0238.9	097.2	32.86
207.0	001.0000	0555.0	042.8	329.5	000.6800	0239.5	097.7	32.75
208.0	001.0000	0552.4	042.7	329.3	000.6800	0239.8	098.4	32.54
209.0	001.0000	0541.2	042.2	329.3	000.6800	0239.8	099.3	32.27
210.0	001.0000	0523.8	041.4	329.5	000.6800	0239.4	100.3	31.95
211.0	001.0000	0509.9	040.7	329.7	000.6800	0239.3	101.2	31.66
212.0	001.0000	0503.3	040.4	329.6	000.6800	0239.3	102.0	31.44
213.0	001.0000	0499.9	040.3	329.5	000.6800	0239.5	102.7	31.24
214.0	001.0000	0492.9	040.0	329.5	000.6800	0239.5	103.5	31.02
215.0	001.0000	0481.8	039.5	329.6	000.6800	0239.4	104.3	30.77
216.0	001.0000	0467.3	038.8	329.8	000.6800	0239.1	105.2	30.52
217.0	001.0000	0455.8	038.3	329.9	000.6800	0238.9	106.0	30.29
218.0	001.0000	0451.0	038.1	329.8	000.6800	0238.9	106.7	30.10
219.0	001.0000	0453.7	038.2	329.7	000.6800	0239.3	107.3	29.95
220.0	001.0000	0459.2	038.5	329.4	000.6800	0239.6	107.8	29.81
221.0	001.0000	0463.0	038.7	329.2	000.6800	0240.0	108.4	29.67
222.0	001.0000	0463.8	038.7	329.1	000.6800	0240.2	109.1	29.51
223.0	001.0000	0464.9	038.7	329.0	000.6800	0240.5	109.7	29.36
224.0	001.0000	0465.5	038.8	328.9	000.6800	0240.8	110.3	29.20
225.0	001.0000	0465.4	038.8	328.8	000.6800	0241.0	111.0	29.05

11-07-2021 Terrain Data: GLOBE 30 Sec FMOver Analysis

KBYA BLED20111006ACE	Alta
Channel = 210A	Channel = 210C2
Max ERP = 0.68 kW	Max ERP = 1 kW
RCAMSL = 2276 m	RCAMSL = 2616.5 m
N. Lat. 42 37 57.70	N. Lat. 43 43 53.00
W. Lng. 110 59 30.70	W. Lng. 111 21 54.72
Protected	Interfering
60 dBu	40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
286.0	000.6800	0120.0	018.5	173.8	001.0000	0283.0	117.8	30.23	
287.0	000.6800	0111.5	017.8	173.4	001.0000	0283.6	117.7	30.25	
288.0	000.6800	0105.1	017.2	173.1	001.0000	0283.8	117.7	30.27	
289.0	000.6800	0102.6	017.0	172.9	001.0000	0283.6	117.5	30.30	
290.0	000.6800	0101.1	016.9	172.8	001.0000	0283.3	117.3	30.34	
291.0	000.6800	0098.9	016.6	172.7	001.0000	0282.8	117.2	30.36	
292.0	000.6800	0094.5	016.2	172.4	001.0000	0281.9	117.1	30.34	
293.0	000.6800	0087.6	015.5	172.0	001.0000	0280.6	117.2	30.29	
294.0	000.6800	0080.2	014.8	171.7	001.0000	0278.3	117.4	30.19	
295.0	000.6800	0075.3	014.3	171.4	001.0000	0276.3	117.4	30.14	
296.0	000.6800	0073.1	014.1	171.3	001.0000	0274.9	117.3	30.12	
297.0	000.6800	0075.3	014.3	171.3	001.0000	0275.0	117.0	30.20	
298.0	000.6800	0080.8	014.8	171.4	001.0000	0276.2	116.5	30.34	
299.0	000.6800	0089.3	015.7	171.7	001.0000	0278.2	115.8	30.56	
300.0	000.6800	0099.4	016.7	172.0	001.0000	0280.3	114.9	30.81	
301.0	000.6800	0108.4	017.5	172.2	001.0000	0281.2	114.2	31.02	
302.0	000.6800	0114.4	018.1	172.3	001.0000	0281.6	113.6	31.16	
303.0	000.6800	0115.4	018.2	172.3	001.0000	0281.4	113.3	31.23	
304.0	000.6800	0113.6	018.0	172.1	001.0000	0280.8	113.2	31.25	
305.0	000.6800	0115.2	018.1	172.0	001.0000	0280.6	112.8	31.32	
306.0	000.6800	0122.5	018.7	172.1	001.0000	0280.9	112.2	31.48	
307.0	000.6800	0134.2	019.5	172.3	001.0000	0281.6	111.4	31.71	
308.0	000.6800	0145.3	020.3	172.5	001.0000	0282.2	110.6	31.93	
309.0	000.6800	0153.6	020.9	172.6	001.0000	0282.4	109.9	32.11	
310.0	000.6800	0159.8	021.3	172.6	001.0000	0282.5	109.4	32.26	
311.0	000.6800	0166.4	021.7	172.6	001.0000	0282.5	108.8	32.41	
312.0	000.6800	0175.7	022.2	172.6	001.0000	0282.6	108.2	32.60	
313.0	000.6800	0185.7	022.8	172.6	001.0000	0282.7	107.5	32.79	
314.0	000.6800	0194.4	023.2	172.6	001.0000	0282.6	106.9	32.96	
315.0	000.6800	0201.4	023.6	172.6	001.0000	0282.5	106.4	33.11	
316.0	000.6800	0209.2	024.0	172.5	001.0000	0282.3	105.8	33.28	
317.0	000.6800	0218.0	024.5	172.5	001.0000	0282.2	105.1	33.46	
318.0	000.6800	0225.2	024.9	172.4	001.0000	0282.0	104.6	33.62	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
319.0	000.6800	0229.0	025.1	172.3	001.0000	0281.5	104.2	33.73
320.0	000.6800	0232.0	025.3	172.1	001.0000	0280.9	103.8	33.83
321.0	000.6800	0236.4	025.5	172.0	001.0000	0280.4	103.4	33.94
322.0	000.6800	0240.7	025.7	171.8	001.0000	0279.5	102.9	34.04
323.0	000.6800	0244.0	025.9	171.7	001.0000	0278.3	102.6	34.11
324.0	000.6800	0246.3	026.0	171.5	001.0000	0276.8	102.3	34.16
325.0	000.6800	0248.1	026.1	171.3	001.0000	0275.0	102.0	34.20
326.0	000.6800	0248.4	026.1	171.0	001.0000	0272.5	101.8	34.19
327.0	000.6800	0246.6	026.0	170.8	001.0000	0269.0	101.7	34.11
328.0	000.6800	0243.4	025.8	170.5	001.0000	0265.0	101.6	34.00
329.0	000.6800	0240.4	025.7	170.2	001.0000	0261.6	101.6	33.91
330.0	000.6800	0238.6	025.6	170.0	001.0000	0259.2	101.5	33.86
331.0	000.6800	0236.8	025.5	169.7	001.0000	0257.1	101.5	33.82
332.0	000.6800	0235.6	025.4	169.5	001.0000	0255.3	101.4	33.79
333.0	000.6800	0236.5	025.5	169.3	001.0000	0253.7	101.2	33.79
334.0	000.6800	0238.5	025.6	169.0	001.0000	0252.0	101.0	33.81
335.0	000.6800	0239.1	025.6	168.8	001.0000	0250.0	100.8	33.79
336.0	000.6800	0237.7	025.6	168.5	001.0000	0248.1	100.8	33.74
337.0	000.6800	0234.4	025.4	168.3	001.0000	0247.1	100.9	33.69
338.0	000.6800	0229.5	025.1	168.0	001.0000	0247.0	101.0	33.63
339.0	000.6800	0223.5	024.8	167.7	001.0000	0247.5	101.3	33.58
340.0	000.6800	0216.8	024.4	167.4	001.0000	0248.1	101.6	33.51
341.0	000.6800	0211.6	024.2	167.2	001.0000	0248.6	101.8	33.46
342.0	000.6800	0208.9	024.0	166.9	001.0000	0249.4	101.9	33.45
343.0	000.6800	0207.9	024.0	166.7	001.0000	0250.7	101.9	33.48
344.0	000.6800	0209.1	024.0	166.5	001.0000	0252.7	101.8	33.57
345.0	000.6800	0216.7	024.4	166.2	001.0000	0255.4	101.4	33.78
346.0	000.6800	0230.8	025.2	166.0	001.0000	0258.6	100.7	34.11
347.0	000.6800	0247.1	026.0	165.8	001.0000	0262.4	099.8	34.47
348.0	000.6800	0261.2	026.7	165.5	001.0000	0266.5	099.2	34.80
349.0	000.6800	0277.5	027.5	165.2	001.0000	0271.0	098.4	35.17
350.0	000.6800	0298.4	028.4	164.9	001.0000	0276.0	097.5	35.61
351.0	000.6800	0320.6	029.5	164.5	001.0000	0281.2	096.5	36.08
352.0	000.6800	0338.3	030.3	164.1	001.0000	0286.3	095.7	36.48
353.0	000.6800	0353.1	031.0	163.7	001.0000	0291.3	095.1	36.83
354.0	000.6800	0364.5	031.5	163.4	001.0000	0296.0	094.7	37.11
355.0	000.6800	0374.4	032.0	163.0	001.0000	0300.4	094.4	37.34
356.0	000.6800	0383.4	032.3	162.6	001.0000	0304.3	094.2	37.54
357.0	000.6800	0391.3	032.6	162.2	001.0000	0307.9	094.0	37.70
358.0	000.6800	0398.4	032.9	161.8	001.0000	0311.2	093.9	37.84
359.0	000.6800	0405.1	033.2	161.5	001.0000	0313.6	093.8	37.94
000.0	000.6800	0411.4	033.4	161.1	001.0000	0315.2	093.7	38.00
001.0	000.6800	0417.7	033.6	160.7	001.0000	0315.8	093.7	38.03
002.0	000.6800	0423.0	033.9	160.3	001.0000	0315.5	093.7	38.02
003.0	000.6800	0425.3	033.9	160.0	001.0000	0314.5	093.9	37.95
004.0	000.6800	0426.0	034.0	159.6	001.0000	0312.9	094.1	37.83
005.0	000.6800	0426.1	034.0	159.3	001.0000	0310.7	094.3	37.68
006.0	000.6800	0425.5	034.0	159.0	001.0000	0308.0	094.6	37.51
007.0	000.6800	0424.6	033.9	158.7	001.0000	0305.1	094.9	37.33
008.0	000.6800	0424.3	033.9	158.4	001.0000	0301.8	095.2	37.13
009.0	000.6800	0424.0	033.9	158.1	001.0000	0298.2	095.5	36.92

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
010.0	000.6800	0423.2	033.9	157.8	001.0000	0294.5	095.8	36.70
011.0	000.6800	0422.1	033.8	157.5	001.0000	0290.8	096.2	36.48
012.0	000.6800	0420.7	033.8	157.2	001.0000	0287.0	096.6	36.24
013.0	000.6800	0418.9	033.7	156.9	001.0000	0283.0	097.0	35.99
014.0	000.6800	0416.9	033.6	156.7	001.0000	0278.8	097.4	35.73
015.0	000.6800	0414.8	033.5	156.5	001.0000	0274.5	097.8	35.47
016.0	000.6800	0413.3	033.5	156.2	001.0000	0269.8	098.2	35.20
017.0	000.6800	0412.1	033.4	156.0	001.0000	0264.9	098.6	34.92
018.0	000.6800	0410.9	033.4	155.7	001.0000	0259.8	099.0	34.63
019.0	000.6800	0409.5	033.3	155.5	001.0000	0254.8	099.5	34.34
020.0	000.6800	0407.7	033.3	155.3	001.0000	0249.8	099.9	34.05
021.0	000.6800	0405.7	033.2	155.1	001.0000	0244.9	100.4	33.76
022.0	000.6800	0401.8	033.0	154.9	001.0000	0240.8	100.9	33.48
023.0	000.6800	0395.3	032.8	154.8	001.0000	0237.9	101.5	33.22
024.0	000.6800	0387.8	032.5	154.7	001.0000	0235.5	102.1	32.96
025.0	000.6800	0380.5	032.2	154.6	001.0000	0233.3	102.7	32.72
026.0	000.6800	0371.7	031.9	154.6	001.0000	0232.2	103.4	32.49
027.0	000.6800	0359.5	031.3	154.6	001.0000	0233.2	104.2	32.31
028.0	000.6800	0345.4	030.7	154.7	001.0000	0236.0	105.0	32.16
029.0	000.6800	0332.9	030.1	154.8	001.0000	0238.3	105.8	32.01
030.0	000.6800	0318.8	029.4	155.0	001.0000	0241.7	106.6	31.89
031.0	000.6800	0296.4	028.3	155.3	001.0000	0249.1	107.6	31.82
032.0	000.6800	0267.6	027.0	155.7	001.0000	0259.4	108.8	31.80
033.0	000.6800	0241.6	025.7	156.1	001.0000	0268.0	109.8	31.75
034.0	000.6800	0225.4	024.9	156.4	001.0000	0272.8	110.7	31.66
035.0	000.6800	0224.3	024.9	156.3	001.0000	0271.0	111.1	31.51
036.0	000.6800	0238.3	025.6	155.8	001.0000	0261.9	111.1	31.27
037.0	000.6800	0262.5	026.8	155.2	001.0000	0247.2	110.9	30.91
038.0	000.6800	0281.3	027.6	154.7	001.0000	0234.2	110.9	30.56
039.0	000.6800	0274.9	027.3	154.7	001.0000	0234.9	111.5	30.45
040.0	000.6800	0244.2	025.9	155.3	001.0000	0249.1	112.5	30.57
041.0	000.6800	0204.1	023.8	156.1	001.0000	0268.4	113.8	30.77
042.0	000.6800	0165.5	021.6	157.0	001.0000	0283.9	115.1	30.87
043.0	000.6800	0133.3	019.5	157.9	001.0000	0296.3	116.3	30.89
044.0	000.6800	0109.2	017.6	158.7	001.0000	0305.0	117.4	30.86
045.0	000.6800	0092.3	016.0	159.3	001.0000	0311.0	118.4	30.81

KUWJ LIC 212 C2 Dom 3.000 kW 337 m HAAT MCN
Jackson WY 2489.0 m COR AMSL -
Lat = 43 27 39.70, Lng = 110 45 11.70 - NAD 83
University Of Wyoming
Fac ID# 69061 BLED19921207KC
Dist = 57.72 km, Azi = 121.2°, Rev Azi =301.6°

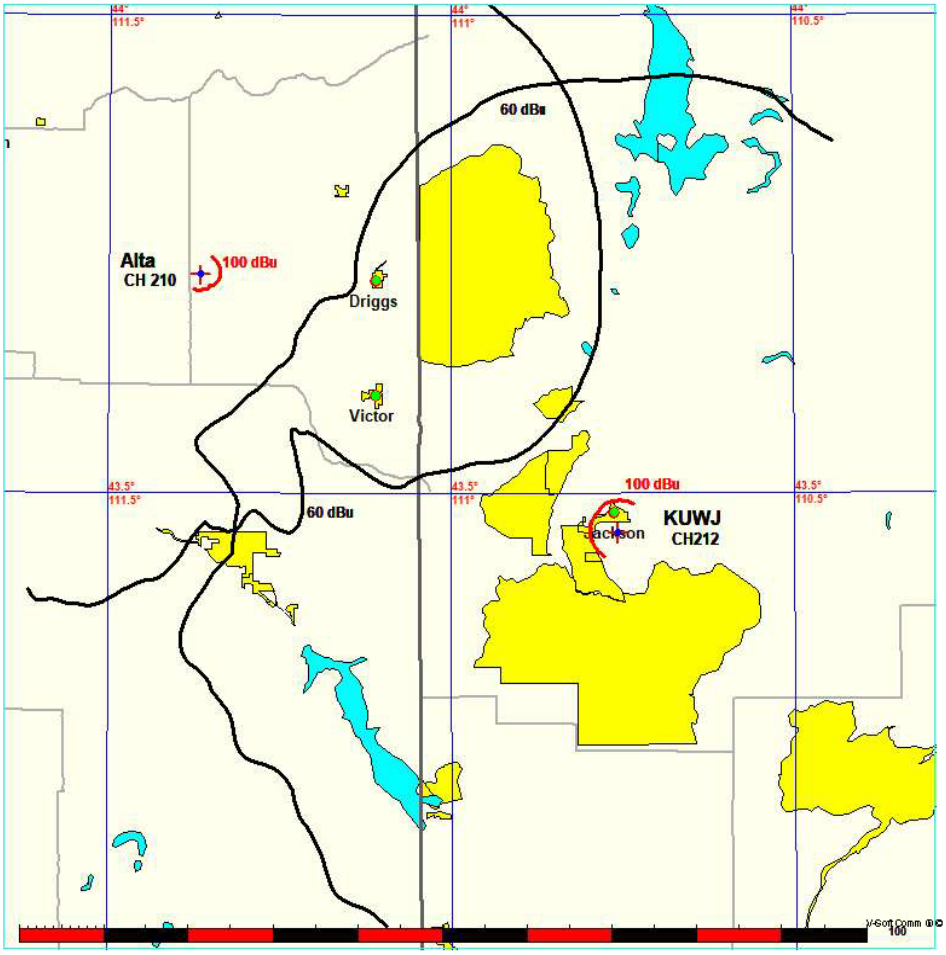
Reference's Greatest Overlaps: (In = 10.78, Out = 11.17)
Toward Ref: HAAT = 387.2m, 3.0 kW
Toward Ref: 60 dBu Protected = 44.4 km, Int = 3.36 km
Direct line Ref. Protected Contour = 42.0 km, Int = 2.13 km
Direct line Ref. HAAT = 536.7 meters, 1.0 kW

Alta, WY
University Of Wyoming

FMCommander Single Allocation Study - 11-04-2021 - GLOBE 30 Sec
Alta's Overlaps (In= 12.35 km, Out= 11.17 km)

Alta CH 210 C2
Lat= 43 43 53.00, Lng= 111 21 54.72
1.0 kW 556.7 m HAAT, 2616.5 m COR
Prot.= 60 dBu, Intef.= 100 dBu

KUWJ CH 212 C2 BLED19921207KC
Lat= 43 27 39.70, Lng= 110 45 11.70
3.0 kW 337 m HAAT, 2489 m COR
Prot.= 60 dBu, Intef.= 100 dBu



11-04-2021 Terrain Data: GLOBE 30 Sec FMOver Analysis

Alta KUWJ BLED19921207KC

Channel = 210C2
Max ERP = 1 kW
RCAMSL = 2616.5 m
N. Lat. 43 43 53.00
W. Lng. 111 21 54.72
Protected
60 dBu

Channel = 212C2
Max ERP = 3 kW
RCAMSL = 2489 m
N. Lat. 43 27 39.70
W. Lng. 110 45 11.70
Interfering
100 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
061.0	001.0000	0685.3	047.6	352.1	003.0000	0537.8	053.5	62.63	
062.0	001.0000	0686.7	047.7	352.5	003.0000	0537.8	052.8	62.90	
063.0	001.0000	0687.7	047.7	352.8	003.0000	0537.8	052.0	63.17	
064.0	001.0000	0688.3	047.7	353.1	003.0000	0537.9	051.2	63.44	
065.0	001.0000	0688.6	047.7	353.5	003.0000	0538.0	050.4	63.72	
066.0	001.0000	0688.5	047.7	353.7	003.0000	0538.2	049.6	64.00	
067.0	001.0000	0688.0	047.7	354.0	003.0000	0538.4	048.8	64.28	
068.0	001.0000	0687.2	047.7	354.2	003.0000	0538.6	048.0	64.57	
069.0	001.0000	0686.0	047.6	354.5	003.0000	0538.7	047.2	64.86	
070.0	001.0000	0684.6	047.6	354.7	003.0000	0538.6	046.4	65.15	
071.0	001.0000	0683.1	047.5	354.8	003.0000	0538.5	045.6	65.45	
072.0	001.0000	0681.3	047.5	355.0	003.0000	0538.4	044.7	65.76	
073.0	001.0000	0679.6	047.4	355.2	003.0000	0538.2	043.9	66.07	
074.0	001.0000	0678.4	047.4	355.3	003.0000	0538.0	043.1	66.38	
075.0	001.0000	0677.6	047.4	355.5	003.0000	0537.9	042.3	66.70	
076.0	001.0000	0677.2	047.3	355.7	003.0000	0537.7	041.5	67.02	
077.0	001.0000	0677.1	047.3	355.8	003.0000	0537.5	040.7	67.35	
078.0	001.0000	0676.5	047.3	356.0	003.0000	0537.3	039.8	67.69	
079.0	001.0000	0675.8	047.3	356.1	003.0000	0537.2	039.0	68.03	
080.0	001.0000	0675.1	047.3	356.2	003.0000	0537.1	038.2	68.38	
081.0	001.0000	0674.5	047.3	356.3	003.0000	0537.0	037.4	68.73	
082.0	001.0000	0674.4	047.2	356.3	003.0000	0536.9	036.5	69.08	
083.0	001.0000	0674.1	047.2	356.4	003.0000	0536.8	035.7	69.44	
084.0	001.0000	0672.9	047.2	356.4	003.0000	0536.8	034.9	69.81	
085.0	001.0000	0671.5	047.1	356.4	003.0000	0536.8	034.1	70.18	
086.0	001.0000	0670.7	047.1	356.3	003.0000	0536.9	033.2	70.55	
087.0	001.0000	0669.9	047.1	356.3	003.0000	0537.0	032.4	70.93	
088.0	001.0000	0669.1	047.1	356.2	003.0000	0537.1	031.6	71.31	
089.0	001.0000	0668.4	047.0	356.0	003.0000	0537.2	030.8	71.72	
090.0	001.0000	0667.5	047.0	355.9	003.0000	0537.4	030.0	72.15	
091.0	001.0000	0666.6	047.0	355.7	003.0000	0537.6	029.2	72.60	
092.0	001.0000	0665.6	046.9	355.4	003.0000	0537.9	028.3	73.07	
093.0	001.0000	0667.0	047.0	355.3	003.0000	0538.1	027.5	73.56	
094.0	001.0000	0669.3	047.1	355.2	003.0000	0538.2	026.7	74.07	
095.0	001.0000	0671.6	047.1	355.1	003.0000	0538.3	025.9	74.60	
096.0	001.0000	0673.7	047.2	354.9	003.0000	0538.5	025.1	75.15	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
097.0	001.0000	0675.5	047.3	354.6	003.0000	0538.6	024.2	75.71
098.0	001.0000	0676.9	047.3	354.3	003.0000	0538.6	023.4	76.27
099.0	001.0000	0676.5	047.3	353.7	003.0000	0538.2	022.6	76.83
100.0	001.0000	0674.5	047.2	352.9	003.0000	0537.8	021.9	77.39
101.0	001.0000	0671.4	047.1	352.0	003.0000	0537.7	021.1	77.94
102.0	001.0000	0667.4	047.0	350.8	003.0000	0538.4	020.4	78.49
103.0	001.0000	0663.7	046.9	349.6	003.0000	0539.9	019.7	79.05
104.0	001.0000	0660.6	046.8	348.2	003.0000	0541.0	019.0	79.61
105.0	001.0000	0657.7	046.7	346.8	003.0000	0541.9	018.3	80.15
106.0	001.0000	0654.6	046.6	345.2	003.0000	0541.8	017.7	80.65
107.0	001.0000	0651.2	046.4	343.4	003.0000	0538.5	017.0	81.09
108.0	001.0000	0646.6	046.3	341.4	003.0000	0528.5	016.5	81.39
109.0	001.0000	0640.7	046.1	339.0	003.0000	0518.8	016.0	81.65
110.0	001.0000	0634.5	045.8	336.5	003.0000	0514.2	015.5	81.95
111.0	001.0000	0628.5	045.6	333.8	003.0000	0511.3	015.1	82.24
112.0	001.0000	0621.9	045.4	330.9	003.0000	0498.2	014.8	82.18
113.0	001.0000	0614.9	045.1	327.8	003.0000	0482.9	014.5	82.26
114.0	001.0000	0607.5	044.9	324.6	003.0000	0468.0	014.3	82.26
115.0	001.0000	0599.5	044.6	321.3	003.0000	0440.2	014.2	81.95
116.0	001.0000	0591.3	044.3	317.9	003.0000	0411.1	014.2	81.44
117.0	001.0000	0582.9	044.0	314.6	003.0000	0369.4	014.2	80.55
118.0	001.0000	0574.1	043.6	311.3	003.0000	0343.6	014.4	79.76
119.0	001.0000	0564.2	043.2	308.0	003.0000	0377.7	014.6	80.25
120.0	001.0000	0553.1	042.8	304.9	003.0000	0386.7	015.0	79.99
121.0	001.0000	0539.5	042.1	302.1	003.0000	0387.1	015.6	79.55
122.0	001.0000	0522.4	041.3	299.5	003.0000	0379.0	016.4	78.66
123.0	001.0000	0502.3	040.4	297.3	003.0000	0374.7	017.4	77.76
124.0	001.0000	0482.2	039.5	295.5	003.0000	0388.0	018.4	77.28
125.0	001.0000	0465.5	038.8	293.9	003.0000	0399.0	019.2	76.87
126.0	001.0000	0453.0	038.2	292.3	003.0000	0406.3	019.9	76.51
127.0	001.0000	0444.0	037.8	290.8	003.0000	0419.5	020.4	76.40
128.0	001.0000	0433.2	037.4	289.4	003.0000	0433.0	021.1	76.21
129.0	001.0000	0418.3	036.8	288.4	003.0000	0441.3	021.9	75.78
130.0	001.0000	0402.3	036.1	287.5	003.0000	0447.9	022.7	75.28
131.0	001.0000	0389.6	035.6	286.6	003.0000	0458.2	023.4	74.95
132.0	001.0000	0380.8	035.2	285.6	003.0000	0472.5	024.0	74.77
133.0	001.0000	0374.0	035.0	284.6	003.0000	0486.5	024.6	74.63
134.0	001.0000	0368.2	034.7	283.7	003.0000	0499.2	025.1	74.48
135.0	001.0000	0364.2	034.5	282.7	003.0000	0508.6	025.6	74.31
136.0	001.0000	0361.8	034.4	281.8	003.0000	0511.3	026.0	74.08
137.0	001.0000	0357.2	034.2	281.0	003.0000	0505.6	026.5	73.64
138.0	001.0000	0345.5	033.6	280.7	003.0000	0501.7	027.3	73.06
139.0	001.0000	0324.2	032.5	281.2	003.0000	0508.1	028.6	72.42
140.0	001.0000	0295.4	031.0	282.2	003.0000	0511.3	030.1	71.61
141.0	001.0000	0262.1	029.2	283.4	003.0000	0502.3	031.8	70.58
142.0	001.0000	0229.5	027.5	284.7	003.0000	0486.1	033.5	69.48
143.0	001.0000	0201.9	025.8	285.7	003.0000	0470.5	035.1	68.45
144.0	001.0000	0178.2	024.4	286.5	003.0000	0458.8	036.5	67.61
145.0	001.0000	0158.6	023.2	287.2	003.0000	0450.7	037.7	66.89
146.0	001.0000	0147.4	022.4	287.5	003.0000	0448.1	038.5	66.45
147.0	001.0000	0145.4	022.3	287.2	003.0000	0451.3	038.9	66.37

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
148.0	001.0000	0141.8	022.0	287.0	003.0000	0453.4	039.3	66.22
149.0	001.0000	0133.3	021.4	287.2	003.0000	0451.3	040.1	65.86
150.0	001.0000	0130.2	021.2	287.0	003.0000	0453.2	040.5	65.72
151.0	001.0000	0141.3	022.0	285.8	003.0000	0469.6	040.2	66.20
152.0	001.0000	0164.2	023.5	283.8	003.0000	0498.5	039.4	67.11
153.0	001.0000	0190.4	025.1	281.6	003.0000	0510.7	038.7	67.64
154.0	001.0000	0217.0	026.7	279.3	003.0000	0473.8	038.1	67.16
155.0	001.0000	0242.8	028.2	277.0	003.0000	0432.7	037.7	66.48
156.0	001.0000	0265.6	029.4	275.0	003.0000	0408.2	037.5	65.96
157.0	001.0000	0283.8	030.4	273.3	003.0000	0402.4	037.6	65.81
158.0	001.0000	0297.5	031.1	272.0	003.0000	0404.2	037.7	65.77
159.0	001.0000	0308.2	031.7	270.9	003.0000	0406.8	038.0	65.70
160.0	001.0000	0314.7	032.0	270.1	003.0000	0408.0	038.4	65.55
161.0	001.0000	0315.4	032.0	269.8	003.0000	0408.7	039.0	65.34
162.0	001.0000	0310.0	031.8	270.0	003.0000	0408.4	039.6	65.06
163.0	001.0000	0300.3	031.2	270.4	003.0000	0407.5	040.2	64.74
164.0	001.0000	0288.0	030.6	271.1	003.0000	0406.3	041.0	64.41
165.0	001.0000	0273.7	029.8	271.9	003.0000	0404.4	041.7	64.05
166.0	001.0000	0258.7	029.1	272.7	003.0000	0402.9	042.4	63.71
167.0	001.0000	0249.2	028.5	273.2	003.0000	0402.5	043.0	63.44
168.0	001.0000	0247.0	028.4	273.2	003.0000	0402.5	043.5	63.22
169.0	001.0000	0251.8	028.7	272.7	003.0000	0403.0	043.9	63.06
170.0	001.0000	0259.2	029.1	272.0	003.0000	0404.1	044.4	62.92
171.0	001.0000	0272.1	029.8	271.0	003.0000	0406.4	044.7	62.83
172.0	001.0000	0280.5	030.2	270.4	003.0000	0407.6	045.2	62.68
173.0	001.0000	0283.6	030.4	270.1	003.0000	0408.2	045.7	62.49
174.0	001.0000	0282.8	030.3	270.1	003.0000	0408.2	046.2	62.28
175.0	001.0000	0277.5	030.0	270.4	003.0000	0407.6	046.8	62.05
176.0	001.0000	0275.0	029.9	270.5	003.0000	0407.4	047.3	61.84
177.0	001.0000	0274.4	029.9	270.5	003.0000	0407.4	047.8	61.64
178.0	001.0000	0269.2	029.6	270.8	003.0000	0407.0	048.4	61.43
179.0	001.0000	0258.5	029.0	271.4	003.0000	0405.4	048.9	61.19
180.0	001.0000	0268.3	029.6	270.8	003.0000	0407.0	049.4	61.04

11-04-2021 Terrain Data: GLOBE 30 Sec FMOver Analysis

KUWJ BLED19921207KC	Alta
Channel = 212C2	Channel = 210C2
Max ERP = 3 kW	Max ERP = 1 kW
RCAMSL = 2489 m	RCAMSL = 2616.5 m
N. Lat. 43 27 39.70	N. Lat. 43 43 53.00
W. Lng. 110 45 11.70	W. Lng. 111 21 54.72
Protected	Interfering
60 dBu	100 dBu

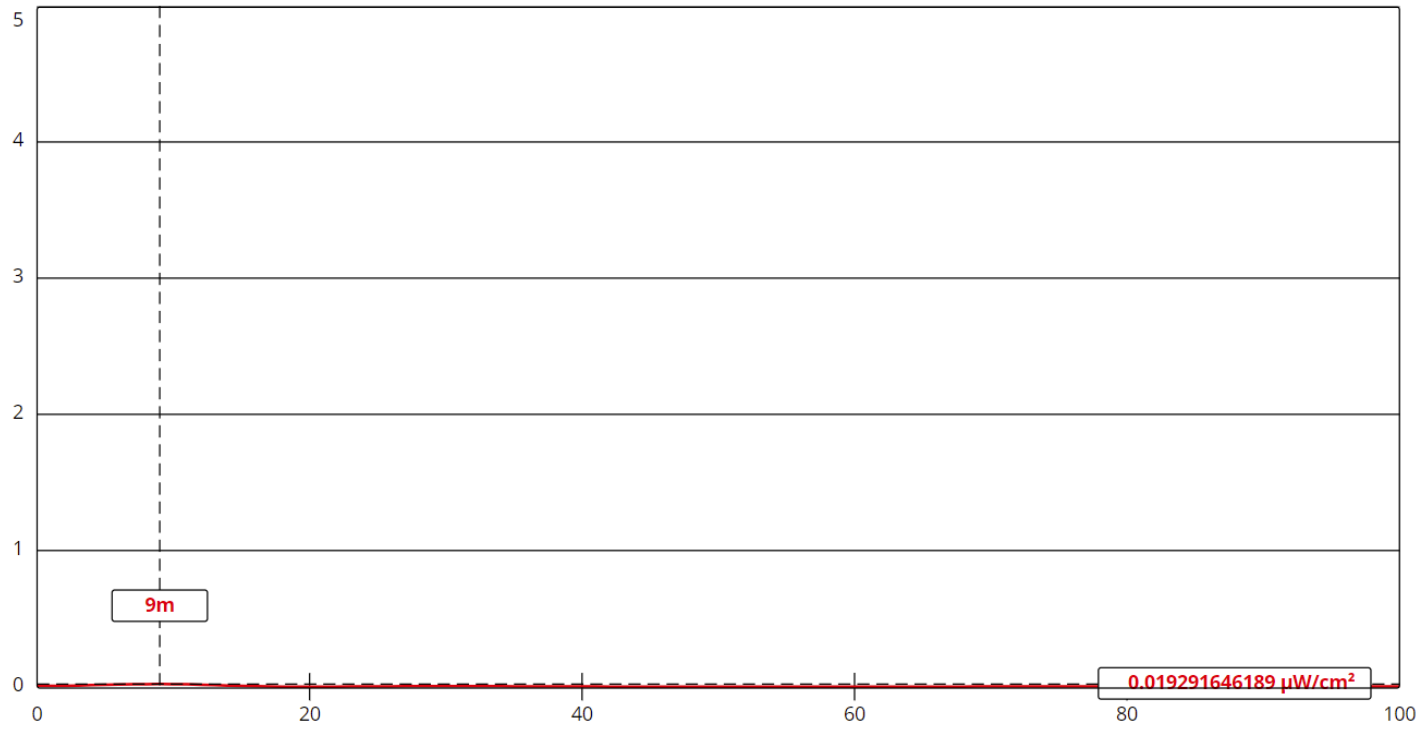
Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
242.0	003.0000	0519.6	051.5	175.7	001.0000	0274.6	054.5	50.24	
243.0	003.0000	0513.9	051.2	175.7	001.0000	0274.6	053.6	50.62	
244.0	003.0000	0509.6	050.9	175.9	001.0000	0274.6	052.7	50.99	
245.0	003.0000	0507.7	050.8	176.1	001.0000	0275.6	051.8	51.37	
246.0	003.0000	0509.4	050.9	176.6	001.0000	0276.0	051.0	51.70	
247.0	003.0000	0513.2	051.1	177.2	001.0000	0273.5	050.3	51.92	
248.0	003.0000	0518.1	051.4	177.8	001.0000	0270.1	049.5	52.11	
249.0	003.0000	0520.8	051.6	178.4	001.0000	0266.8	048.7	52.31	
250.0	003.0000	0522.3	051.6	178.8	001.0000	0261.0	047.9	52.45	
251.0	003.0000	0526.2	051.9	179.4	001.0000	0260.8	047.1	52.76	
252.0	003.0000	0533.2	052.3	180.3	001.0000	0271.8	046.4	53.42	
253.0	003.0000	0544.4	052.9	181.4	001.0000	0286.3	045.7	54.16	
254.0	003.0000	0554.8	053.4	182.4	001.0000	0301.5	045.0	54.92	
255.0	003.0000	0558.7	053.6	183.0	001.0000	0311.3	044.2	55.56	
256.0	003.0000	0557.0	053.5	183.2	001.0000	0316.0	043.3	56.10	
257.0	003.0000	0549.5	053.1	183.1	001.0000	0314.1	042.3	56.47	
258.0	003.0000	0541.0	052.7	182.9	001.0000	0310.2	041.3	56.79	
259.0	003.0000	0531.3	052.2	182.5	001.0000	0303.5	040.2	57.05	
260.0	003.0000	0519.9	051.5	181.9	001.0000	0293.9	039.2	57.22	
261.0	003.0000	0504.0	050.6	180.8	001.0000	0278.8	038.2	57.24	
262.0	003.0000	0488.4	049.7	179.7	001.0000	0264.2	037.2	57.25	
263.0	003.0000	0476.2	049.0	178.8	001.0000	0261.1	036.2	57.59	
264.0	003.0000	0463.6	048.3	177.8	001.0000	0270.2	035.3	58.32	
265.0	003.0000	0446.8	047.4	176.4	001.0000	0276.3	034.4	58.94	
266.0	003.0000	0429.6	046.5	174.9	001.0000	0278.1	033.6	59.40	
267.0	003.0000	0415.5	045.8	173.6	001.0000	0283.2	032.8	59.95	
268.0	003.0000	0412.7	045.7	173.3	001.0000	0283.8	032.0	60.36	
269.0	003.0000	0410.5	045.6	172.9	001.0000	0283.6	031.2	60.76	
270.0	003.0000	0408.3	045.5	172.6	001.0000	0282.6	030.5	61.15	
271.0	003.0000	0406.5	045.4	172.2	001.0000	0281.2	029.7	61.55	
272.0	003.0000	0404.1	045.2	171.7	001.0000	0278.9	028.9	61.94	
273.0	003.0000	0402.6	045.2	171.3	001.0000	0275.4	028.2	62.30	
274.0	003.0000	0401.9	045.1	170.9	001.0000	0270.7	027.4	62.65	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
275.0	003.0000	0408.1	045.4	171.2	001.0000	0274.0	026.6	63.31
276.0	003.0000	0419.5	046.0	172.0	001.0000	0280.3	025.7	64.13
277.0	003.0000	0432.7	046.7	173.1	001.0000	0283.7	024.7	64.90
278.0	003.0000	0446.8	047.4	174.3	001.0000	0281.7	023.7	65.55
279.0	003.0000	0467.5	048.6	176.5	001.0000	0276.1	022.7	66.18
280.0	003.0000	0488.1	049.7	179.0	001.0000	0258.6	021.6	66.45
281.0	003.0000	0505.8	050.7	181.3	001.0000	0285.0	020.6	68.08
282.0	003.0000	0511.6	051.0	181.8	001.0000	0292.1	019.6	69.03
283.0	003.0000	0506.6	050.7	180.4	001.0000	0273.9	018.8	69.16
284.0	003.0000	0495.5	050.1	177.9	001.0000	0269.9	018.1	69.62
285.0	003.0000	0481.4	049.3	174.6	001.0000	0279.9	017.5	70.40
286.0	003.0000	0466.6	048.5	171.0	001.0000	0272.6	017.1	70.58
287.0	003.0000	0453.1	047.8	167.5	001.0000	0247.9	016.6	70.17
288.0	003.0000	0443.9	047.3	164.6	001.0000	0280.0	016.2	71.54
289.0	003.0000	0436.5	046.9	161.7	001.0000	0312.0	015.7	72.79
290.0	003.0000	0427.5	046.4	158.5	001.0000	0303.5	015.4	72.86
291.0	003.0000	0417.2	045.9	155.0	001.0000	0242.5	015.2	71.25
292.0	003.0000	0408.3	045.5	151.6	001.0000	0154.4	015.0	67.26
293.0	003.0000	0402.7	045.2	148.5	001.0000	0137.3	014.7	66.45
294.0	003.0000	0398.4	045.0	145.5	001.0000	0151.7	014.4	67.68
295.0	003.0000	0392.1	044.7	142.2	001.0000	0224.4	014.3	71.25
296.0	003.0000	0383.9	044.3	138.7	001.0000	0331.5	014.3	74.71
297.0	003.0000	0376.5	043.9	135.3	001.0000	0363.4	014.4	75.44
298.0	003.0000	0373.2	043.7	132.2	001.0000	0379.1	014.3	75.87
299.0	003.0000	0375.8	043.9	129.3	001.0000	0413.1	014.0	76.91
300.0	003.0000	0382.1	044.2	126.4	001.0000	0449.6	013.6	78.09
301.0	003.0000	0386.3	044.4	123.2	001.0000	0499.2	013.4	79.05
302.0	003.0000	0387.3	044.4	119.8	001.0000	0555.2	013.3	79.82
303.0	003.0000	0385.1	044.3	116.5	001.0000	0586.8	013.5	80.08
304.0	003.0000	0384.9	044.3	113.3	001.0000	0612.6	013.6	80.26
305.0	003.0000	0386.8	044.4	110.0	001.0000	0634.3	013.7	80.42
306.0	003.0000	0388.3	044.5	106.9	001.0000	0651.7	013.8	80.45
307.0	003.0000	0386.4	044.4	104.0	001.0000	0660.5	014.2	80.20
308.0	003.0000	0378.0	044.0	101.9	001.0000	0667.9	014.9	79.66
309.0	003.0000	0364.7	043.3	100.5	001.0000	0673.1	015.8	79.25
310.0	003.0000	0352.5	042.7	099.3	001.0000	0676.1	016.7	78.58
311.0	003.0000	0344.8	042.3	097.9	001.0000	0676.8	017.5	78.03
312.0	003.0000	0344.6	042.2	095.9	001.0000	0673.5	017.9	77.67
313.0	003.0000	0351.0	042.6	093.4	001.0000	0667.9	018.1	77.47
314.0	003.0000	0361.9	043.2	090.4	001.0000	0667.2	018.1	77.42
315.0	003.0000	0375.5	043.9	087.2	001.0000	0669.8	018.2	77.41
316.0	003.0000	0389.4	044.5	084.0	001.0000	0672.9	018.3	77.33
317.0	003.0000	0401.5	045.1	081.1	001.0000	0674.5	018.6	77.15
318.0	003.0000	0411.7	045.6	078.4	001.0000	0676.1	019.0	76.88
319.0	003.0000	0420.8	046.1	076.1	001.0000	0677.2	019.5	76.54
320.0	003.0000	0429.2	046.5	073.9	001.0000	0678.4	020.0	76.17
321.0	003.0000	0437.7	047.0	071.9	001.0000	0681.5	020.6	75.79
322.0	003.0000	0446.3	047.4	069.9	001.0000	0684.6	021.2	75.39
323.0	003.0000	0454.5	047.9	068.2	001.0000	0687.0	021.9	74.95
324.0	003.0000	0463.0	048.3	066.5	001.0000	0688.3	022.6	74.48
325.0	003.0000	0471.0	048.8	065.0	001.0000	0688.6	023.3	73.99

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
326.0	003.0000	0477.2	049.1	063.8	001.0000	0688.2	024.1	73.46
327.0	003.0000	0480.7	049.3	063.1	001.0000	0687.8	024.9	72.92
328.0	003.0000	0483.5	049.4	062.6	001.0000	0687.4	025.8	72.38
329.0	003.0000	0488.0	049.7	061.9	001.0000	0686.6	026.6	71.85
330.0	003.0000	0493.9	050.0	061.1	001.0000	0685.5	027.5	71.32
331.0	003.0000	0498.9	050.3	060.5	001.0000	0684.4	028.3	70.80
332.0	003.0000	0503.3	050.6	060.1	001.0000	0683.5	029.2	70.29
333.0	003.0000	0508.1	050.8	059.6	001.0000	0682.6	030.1	69.80
334.0	003.0000	0512.1	051.1	059.3	001.0000	0681.9	031.0	69.33
335.0	003.0000	0513.6	051.1	059.3	001.0000	0681.9	031.9	68.89
336.0	003.0000	0513.8	051.2	059.4	001.0000	0682.2	032.8	68.48
337.0	003.0000	0514.9	051.2	059.5	001.0000	0682.3	033.7	68.06
338.0	003.0000	0516.9	051.3	059.5	001.0000	0682.3	034.6	67.64
339.0	003.0000	0518.8	051.4	059.5	001.0000	0682.4	035.5	67.23
340.0	003.0000	0520.7	051.6	059.6	001.0000	0682.6	036.4	66.82
341.0	003.0000	0526.0	051.9	059.4	001.0000	0682.1	037.3	66.39
342.0	003.0000	0532.9	052.3	059.1	001.0000	0681.4	038.3	65.94
343.0	003.0000	0537.4	052.5	059.0	001.0000	0681.3	039.3	65.52
344.0	003.0000	0539.8	052.6	059.1	001.0000	0681.6	040.2	65.12
345.0	003.0000	0541.5	052.7	059.3	001.0000	0682.1	041.1	64.73
346.0	003.0000	0542.1	052.8	059.6	001.0000	0682.7	042.0	64.36
347.0	003.0000	0541.8	052.7	060.0	001.0000	0683.5	042.9	64.00
348.0	003.0000	0541.2	052.7	060.4	001.0000	0684.2	043.8	63.66
349.0	003.0000	0540.4	052.7	060.8	001.0000	0685.0	044.6	63.32
350.0	003.0000	0539.4	052.6	061.2	001.0000	0685.7	045.5	62.99
351.0	003.0000	0538.2	052.5	061.7	001.0000	0686.3	046.3	62.67
352.0	003.0000	0537.7	052.5	062.1	001.0000	0686.8	047.2	62.35
353.0	003.0000	0537.9	052.5	062.5	001.0000	0687.2	048.0	62.04
354.0	003.0000	0538.4	052.6	062.8	001.0000	0687.6	048.9	61.73
355.0	003.0000	0538.4	052.6	063.2	001.0000	0687.9	049.8	61.42
356.0	003.0000	0537.3	052.5	063.6	001.0000	0688.1	050.6	61.12
357.0	003.0000	0536.1	052.4	064.1	001.0000	0688.4	051.4	60.82
358.0	003.0000	0535.2	052.4	064.5	001.0000	0688.5	052.2	60.52
359.0	003.0000	0533.9	052.3	065.0	001.0000	0688.6	053.1	60.22
000.0	003.0000	0534.2	052.3	065.4	001.0000	0688.6	053.9	59.91
001.0	003.0000	0536.0	052.4	065.7	001.0000	0688.5	054.8	59.59

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 1.0 kW and COR of 20 m A.G. would produce 0.019291646189 µW.cm² 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 µW.cm²). 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 (μW/cm²)
0	0.0
1	0.0
2	0.0
3	0.0
4	0.0
5	0.0
6	0.0
7	0.0
8	0.0
9	0.0
10	0.0
11	0.0
12	0.0
13	0.0
14	0.0
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 thestation 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 ofthe 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 ofoverlap 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 rowindicate the reverse bearings from the database stations to the reference station.

The columns labeled "INT" and "PRO" contain the distance in kilometers of the ap-propriate 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 whendisplayed 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/MexicanWorking 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. Thefifth 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 protectedand the F(50-10) interference contour, as defined in section 74.1205 of the Rules.

Proposed Alta Tower Site

N. Lat. 43-43-53.00

W. Long. 111-20-59.30

Base Elevation 2595.5 m

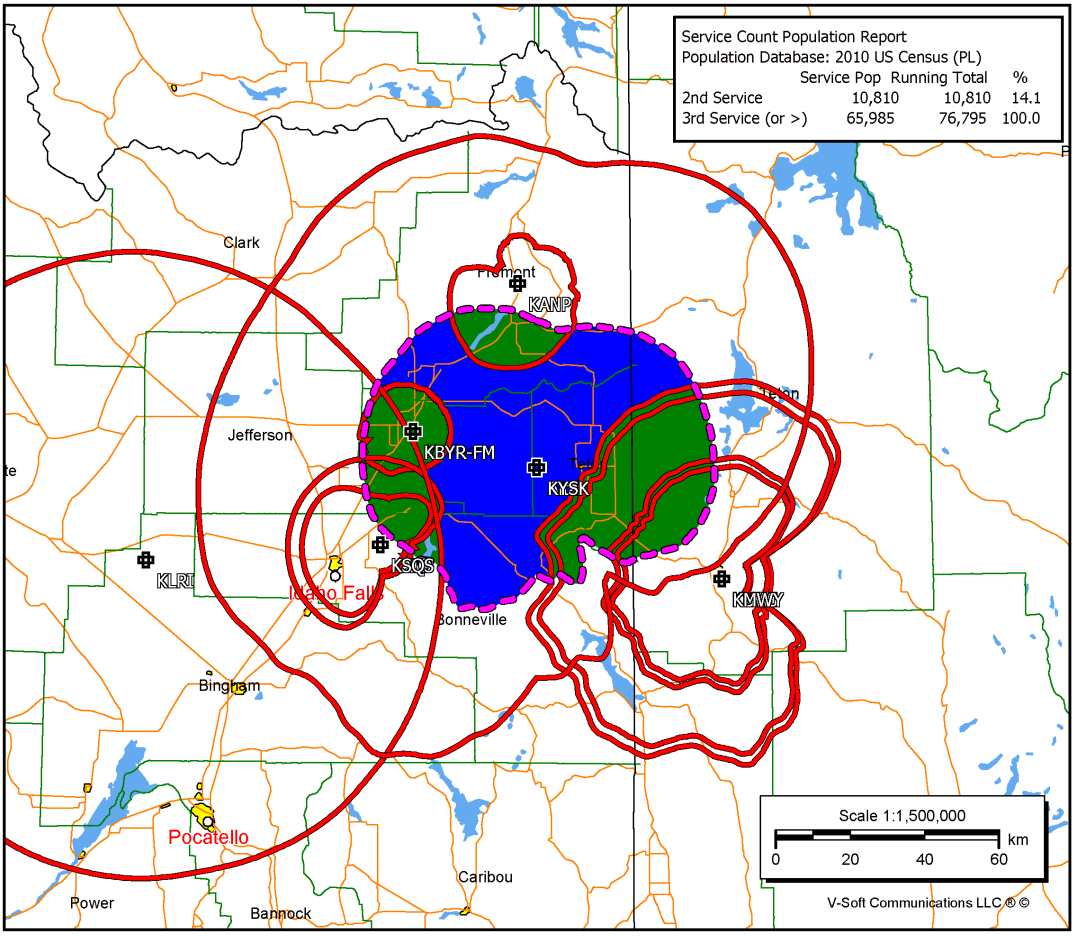


Site availability confirmation: Teton Communications, Tony Hafla, Owner, (208)522-0750 (11/04/2021)

Service Count Population Count

Alta

Latitude: 43-43-53 N
Longitude: 111-21-54.72 W
ERP: 1.00 kW
Channel: 210
Frequency: 89.9 MHz
AMSL Height: 2616.5 m
Horiz. Pattern: Omni



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 alifetime 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 theengineering showings appended hereto.

That, I have prepared these broadcast engineering showings, the technical informationcontained 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 of November 1, 2021