

**KGTM(FM)**  
**Rexburg, ID**

Proposed Minor Modification  
Of Licensed Facility

**Application Overview:**

Lee Family Broadcasting, Inc., (“Lee Family”) licensee of Station KKMV(FM), Channel 291C0, Rupert, ID, FCC Facility ID No. 67744, and RJ Broadcasting, LS, LLC (“RJ Broadcasting”) licensee of Stations KGTM(FM), Channel 251C1 Rexburg, ID, FCC Facility ID No. 12665, and KQEZ(FM), Channel 292C1 Shelley, ID, FCC Facility ID No. 73616 (collectively, the “Parties”), hereby file simultaneously with the Federal Communications Commission (“FCC”), FCC Form 301 Applications for KKMV(FM), KGTM(FM), and KQEZ(FM) for Minor-Change Construction Permits.

In its 301 Application, KKMV(FM) proposes a one step upgrade from Channel 291C0 to 291C at its currently licensed site utilizing Section 73.215 Contour Protection Processing. In order to create a one-step upgrade allotment coordinate that is fully spaced under Section 73.207, KGTM, in the instant contingent 301 Application, proposes a Channel Substitution of Channel 292C1 for Channel 251C1 utilizing allocation coordinates at Rexburg, ID, that are fully spaced to the one-step upgrade allotment site for KKMV(FM). KGTM(FM) also requests Section 73.215 Contour Protection Processing to return to its current antenna site. In order to allow KGTM(FM) to change its channel to 292C1, KQEZ(FM), in its contingent 301 Application, proposes its own Channel Substitution of Channel 251C1 for Channel 292C1 at Shelley, ID, which becomes available when KGTM(FM) moves off of Channel 251C1.

KGTM(FM) (FCC Facility ID# 12665) proposes to modify its currently Licensed Facilities using the following parameters:

**Tech Box:**

Channel:	292
Class:	C1
Antenna Coordinates:	N43-32-34, W111-53-07 (NAD 27)
Allotment Ref. Coordinates:	N44-03-59, W111-18-56 (NAD 27)
ASRN:	N/A
Tower Height AGL:	60 m
COR AMSL:	1741 m
COR AGL:	49 m
COR HAAT:	194 m
ERP:	100 kW
Directional Antenna:	No

**Allotment Modifications:**

Exhibit 1 is an allotment reference site channel spacings study for KGTM(FM) on Channel 292C1 at Rexburg, ID, demonstrating that the proposed facility is fully spaced pursuant to Section 73.207 towards all other authorizations, allotments, and proposals from the following location:

Allotment Reference Coordinates: N44-03-59, W111-18-56 (NAD 27)

**Allotment Site City-Grade Coverage:**

In accordance with the city grade coverage requirements of Section 73.315, Exhibit 2 demonstrates that the proposed allotment site provides requisite coverage of KGTM(FM)'s community of license – Rexburg, ID. As can be seen in the Exhibit, 100% of Rexburg's community boundaries are encompassed by the theoretical 70 dBu, circle contour. Also, no terrain obstructions are located between the antenna site and the community.

**Suitable Allotment Reference Site:**

In accordance with Note 1 to Section 73.3573, Exhibit 3 is a site map showing that the allotment reference site is located at a suitable location and is not offshore, in a national or state park, on an airport or otherwise in an area which would necessarily present a hazard to air navigation.

**Antenna Site City-Grade Coverage:**

Exhibit 4 demonstrates that the proposed facility's antenna site provides city grade coverage of KGTM(FM)'s community of license – Rexburg, ID. As can be seen in the Exhibit, 100% of Rexburg's community boundaries are encompassed by the F(50,50) 70 dBu contour of the proposed facility. Also, no major terrain obstructions are located between the antenna site and the community.

**Interference Study (Requesting Section 73.215 Contour Protection):**

Exhibit 5 is a channel spacings study from the proposed KGTM(FM) antenna site. It notes that the proposed KGTM(FM) antenna site would otherwise be slightly shortspaced to:

-KKMV(FM) Rupert, ID 291C (see Contingently Proposed Application)

Therefore, the applicant requests Section 73.215 contour protection processing.

KGTM(FM) is eligible to request 73.215 Contour Protection towards KKMV(FM) as it complies with the minimum separation requirements on its first adjacent channel at its proposed antenna site. The channel spacings study in Exhibit 5 shows that the proposed KGTM(FM) 292C1 antenna location is spaced 194.13 kilometers from the KKMV(FM) site. In order to be eligible for 73.215 Contour Protection, the minimum “C1 to C” spacing for first adjacent channel stations must be at least 188 kilometers. The proposed KGTM(FM) 292C1 antenna site satisfies this requirement by 6.13 kilometers.

Using the facilities proposed herein, KGTM(FM) 292C1 complies with the contour protection requirements of Section 73.215 towards KKMV(FM). The attached overlap tabulation studies and overlap map in Exhibit 5A demonstrates that this application complies with the contour protection requirements of Section 73.215.

In reviewing the attached studies, it should be noted that since KKMV(FM) is requesting Section 73.215 Contour Protection Processing and shall be examined using its actual contingently proposed facilities.

Using the KGTM(FM) 292C1 technical parameters proposed in this application, Exhibit 5A demonstrates that the proposed KGTM(FM) F(50,50) 60 dBu Protected Contour does not overlap the F(50,10) 54 dBu Interfering Contour of KKMV(FM) operations on Channel 291C. Likewise, Exhibit 5A demonstrates that the F(50,50) 60 dBu Protected Contour for KKMV(FM) does not overlap the proposed F(50,10) 54 dBu Interfering Contour of the instant KGTM(FM) application on 292C1. Therefore, it appears as though the instant application meets the requirements of Section 73.215 towards KKMV(FM).

#### **Downward Radiation Study (Measure Upon Construction)**

Due to the fact that several existing and proposed emitters are located at or near the site, the applicant agrees to conduct a Radiofrequency Electromagnetic Field survey at the site upon construction of the proposed facility to ensure that any areas at ground level that exceed the Commission's exposure guideline values are appropriately marked and fenced. The results of the survey will be provided with the application for license.

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

**Existing Tower:**

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

# **Exhibit 1**

## **Allotment Reference Site Channel Spacings Study**

ADD 251C1 Shelley, ID  
Section 73.207 Allocation Site Channel Study

REFERENCE	CLASS = C1	DISPLAY DATES
44 03 59.0 N.		DATA 06-22-13
111 18 56.0 W.	Current Spacings to 3rd Adj.	SEARCH 06-23-13
----- Channel 292 - 106.3 MHz -----		

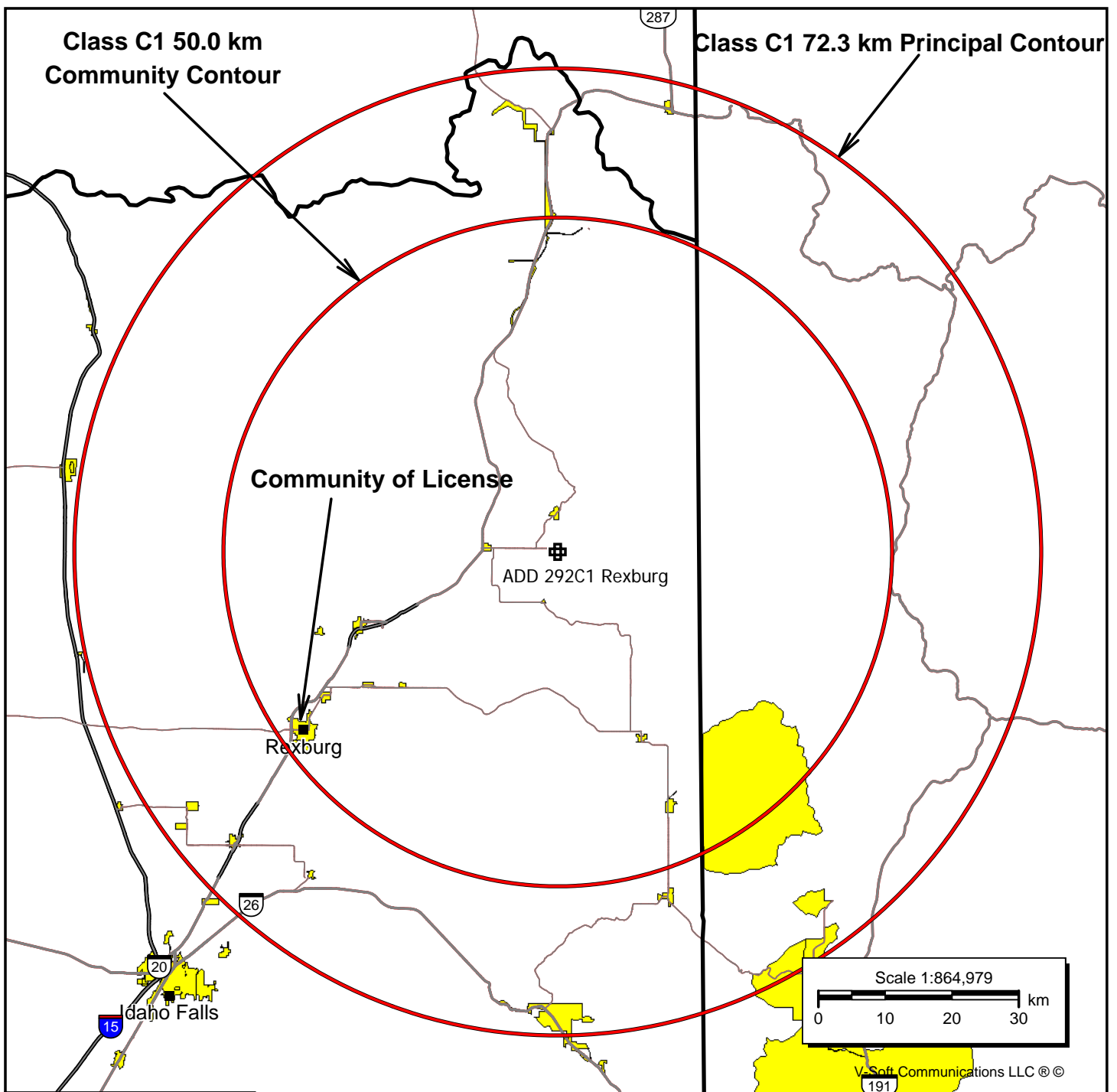
Call	Channel	Location	Azi	Dist	FCC	Margin
ALLO	ADD 292C1	Rexburg	ID	0.0	0.00	245.0 -245.0
Of Note: Instantly proposed Channel Substitution of Channel 292C1 for Channel 251C1 at Rexburg.						
KQEZ	LIC 292C1	Shelley	ID	218.3	74.07	245.0 -170.9
Of No Concern: Contingently proposed Channel Substitution of Channel 251C1 for Channel 292C1 at Shelley for KQEZ(FM)'s use eliminates conflict.						
AL9141	VAC 294C2	Jackson	WY	145.6	79.10	79.0 0.10
ALLO	ADD 291C	Rupert	ID	224.8	209.12	209.0 0.12

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## **Exhibit 2**

### **Allotment Reference Site City-Grade Coverage Map**



**ADD 292C1 Rexburg**

Channel: 292C1  
Frequency: 106.3 MHz  
Latitude: 44-03-59 N  
Longitude: 111-18-56 W  
COR AGL Height: 333.78 m  
COR AMSL Height: 2039.77 m  
Base Elevation: 1705.99 m  
COR HAAT: 312.03 m  
ERP: 100.00 kW  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: None

## **Exhibit 3**

### **Allotment Reference Site Topographic Map**

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY



WARM RIVER QUADRANGLE  
IDAHO-FREMONT CO.  
7.5 MINUTE SERIES (TOPOGRAPHIC)

ADD 292C1  
Rexburg, ID  
ALLOTMENT SITE



Maped, edited, and published by the Geological Survey  
Control by USGS and USC&GS

Topography by photogrammetric methods from aerial  
photographs taken 1963. Field checked 1965.  
Polyconic projection. 1927 North American datum.  
10,000-foot grid based on Idaho coordinate system;  
east zone.  
1000-meter Universal Transverse Mercator grid ticks;  
zone 12, shown in blue.  
To place on the predicted North American Datum 1983  
move the projection lines 11 meters north and  
63 meters east as shown by dashed corner ticks.  
Fine red dashed lines indicate selected fence lines.  
There may be private inholdings within the boundaries of  
the National or State reservations shown on this map.



SCALE 1:24,000  
CONTOUR INTERVAL 10 FEET  
NATIONAL GEODETIC VERTICAL DATUM OF 1929  
FOR SALE BY U.S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092  
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

ROAD CLASSIFICATION  
Medium-duty — Light-duty  
Unimproved dirt  
USGS  
National File  
Topographic Division  
WARM RIVER, IDAHO  
N4400-W11115-7.5  
1965  
DMA 5772 IS SE-SERIES V93

JAN 14 1980

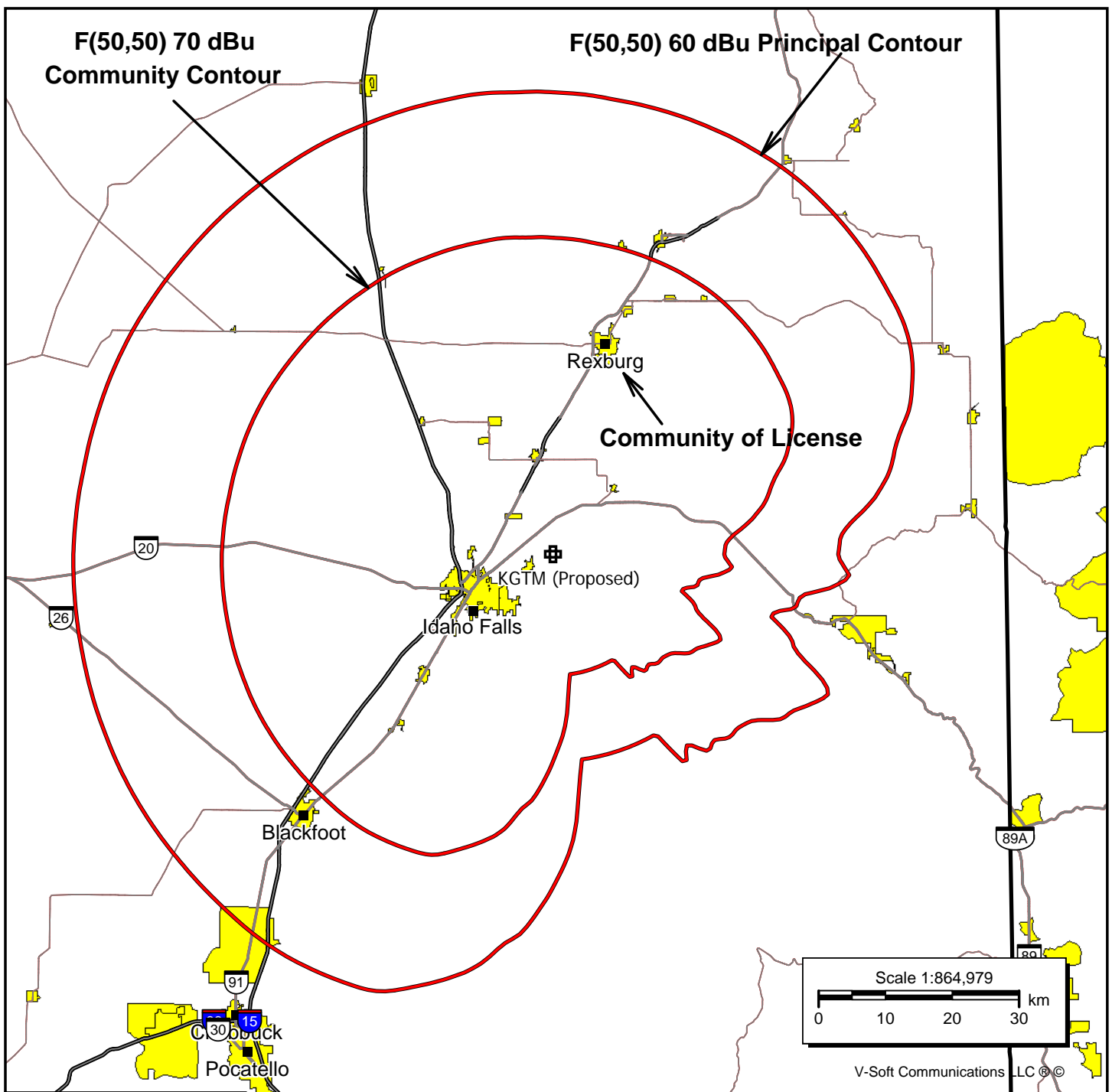
300

## **Exhibit 4**

### **Proposed Antenna Site Contour Map:**

**F(50,50) Protected Contour  
F(50,50) City-Grade Contour**





**KGTM (Proposed)**

Channel: 292C1  
Frequency: 106.3 MHz  
Latitude: 43-32-34 N  
Longitude: 111-53-07 W  
COR AGL Height: 49.0 m  
COR AMSL Height: 1741.0 m  
Base Elevation: 1692.0 m  
COR HAAT: 194.0 m  
ERP: 100.00 kW  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: None

## **Exhibit 5**

### **Proposed Antenna Site Channel Spacings Study**





# **Exhibit 5A**

## **Section 73.215 Contour Overlap Tabulations and Contour Overlap Map**

**KGTM(FM) 292C1  
vs:  
KKMV(FM) 291C (Contingently Proposed)**

KGTM(FM) 292C1 Rexburg, ID, vs KKMV(FM) 291C (APP) Rupert  
Section 73.215 Contour Overlap Study

FMCommander Single Allocation Study - 06-23-2013 - NGDC 30 SEC  
KGTM's Overlaps (In= 0.0 km, Out= 0.0 km)

KGTM CH 292 C1 73.215 N

Lat= 43 32 34.0, Lng= 111 53 07.0

100.0 kW 193.8 M HAAT, 1741 M COR

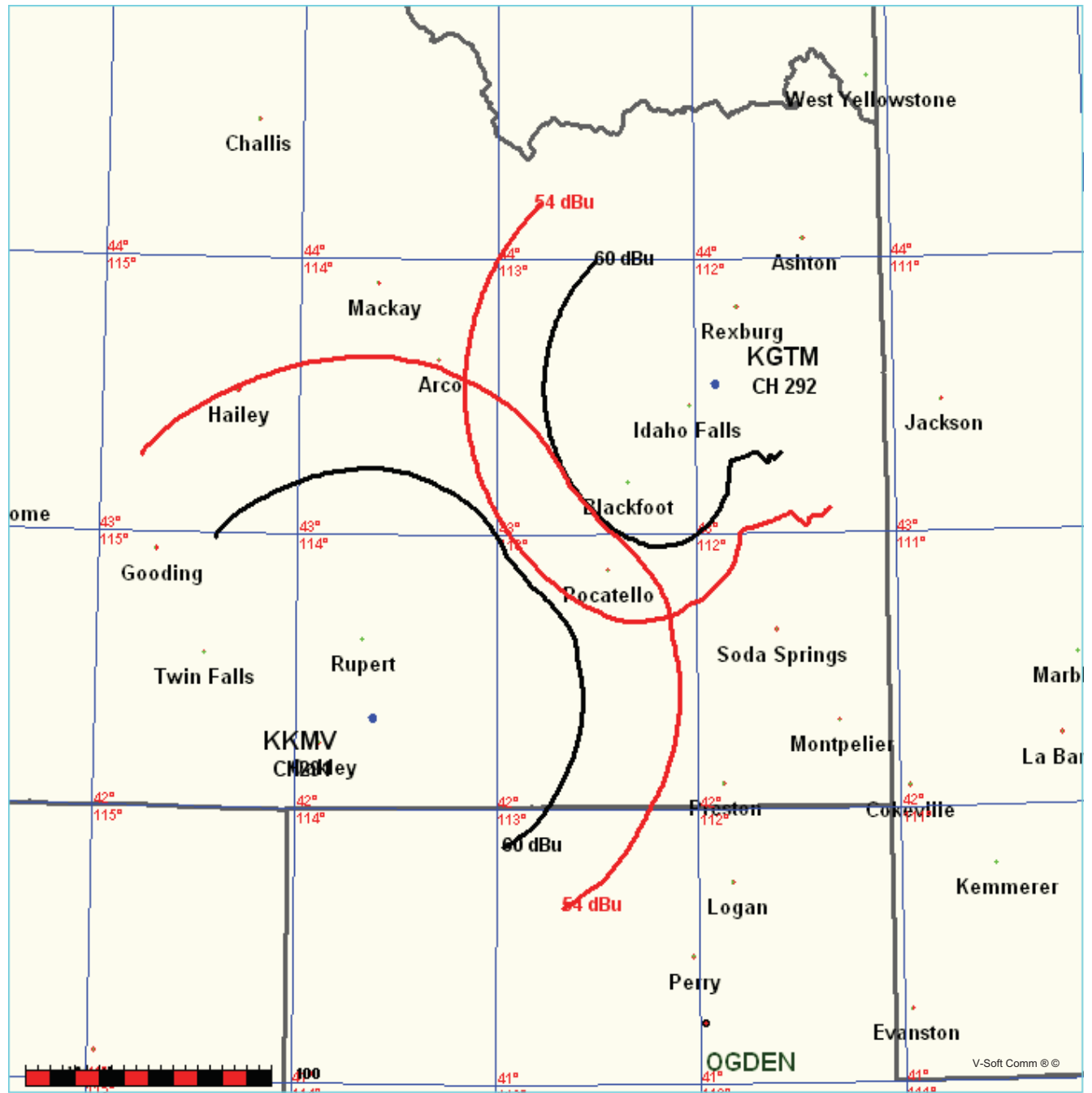
Prot.= 60 dBu, Intef.= 54 dBu

KKMV CH 291 C 73.215 Z

Lat= 42 20 06.0, Lng= 113 36 15.0

60.0 kW 761 M HAAT, 2550 M COR

Prot.= 60 dBu, Intef.= 54 dBu



06-23-2013

Terrain Data: NGDC 30 SEC

FMOver Analysis

KGTM

KKMV

Channel = 292C1

Max ERP = 100 kW

RCAMSL = 1741 M

N. Lat. 43 32 34.0

W. Lng. 111 53 07.0

Protected

60 dBu

Channel = 291C

Max ERP = 60 kW

RCAMSL = 2550 M

N. Lat. 42 20 06.0

W. Lng. 113 36 15.0

Interfering

54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
167.0	100.0000	0012.6	031.0	054.1	018.9060	0887.3	180.6	39.33	
168.0	100.0000	0015.4	031.0	054.1	018.8568	0887.5	180.0	39.43	
169.0	100.0000	0019.9	031.0	054.0	018.8071	0887.7	179.5	39.52	
170.0	100.0000	0024.0	031.0	053.9	018.7552	0887.9	179.1	39.62	
171.0	100.0000	0028.0	031.0	053.8	018.7011	0888.1	178.6	39.71	
172.0	100.0000	0033.0	032.2	054.1	018.9123	0887.2	177.5	39.97	
173.0	100.0000	0039.5	034.9	054.8	019.4348	0884.8	175.8	40.44	
174.0	100.0000	0047.1	037.9	055.6	020.0270	0881.5	173.9	40.96	
175.0	100.0000	0057.1	041.3	056.5	020.7157	0876.7	171.7	41.54	
176.0	100.0000	0066.8	043.7	057.1	021.1903	0873.2	169.9	42.01	
177.0	100.0000	0075.1	045.7	057.6	021.5491	0870.6	168.3	42.43	
178.0	100.0000	0082.6	047.3	057.9	021.8409	0868.6	166.8	42.83	
179.0	100.0000	0090.0	048.9	058.3	022.1085	0866.9	165.3	43.22	
180.0	100.0000	0097.7	050.4	058.6	022.3614	0865.4	163.8	43.62	
181.0	100.0000	0105.6	051.9	058.9	022.5917	0864.1	162.3	44.02	
182.0	100.0000	0113.4	053.2	059.1	022.7838	0863.0	160.9	44.41	
183.0	100.0000	0122.8	054.6	059.4	022.9890	0861.9	159.3	44.82	
184.0	100.0000	0132.8	056.1	059.6	023.1944	0860.9	157.7	45.24	
185.0	100.0000	0141.5	057.3	059.8	023.3387	0860.2	156.2	45.63	
186.0	100.0000	0147.1	058.1	059.8	023.3581	0860.1	155.0	45.95	
187.0	100.0000	0152.6	058.8	059.8	023.3605	0860.1	153.7	46.26	
188.0	100.0000	0161.4	059.9	059.9	023.4426	0859.7	152.2	46.65	
189.0	100.0000	0172.7	061.2	060.1	023.5512	0859.2	150.6	47.07	
190.0	100.0000	0184.3	062.3	060.1	023.6118	0858.9	149.1	47.48	
191.0	100.0000	0194.1	063.2	060.2	023.6201	0858.8	147.7	47.86	
192.0	100.0000	0203.1	064.1	060.1	023.6031	0858.9	146.3	48.23	
193.0	100.0000	0210.4	064.8	060.0	023.5441	0859.2	145.0	48.57	
194.0	100.0000	0218.2	065.5	060.0	023.4744	0859.6	143.7	48.92	
195.0	100.0000	0225.5	066.2	059.8	023.3722	0860.0	142.4	49.25	
196.0	100.0000	0233.1	066.8	059.7	023.2600	0860.6	141.1	49.59	
197.0	100.0000	0240.4	067.5	059.5	023.1252	0861.2	139.8	49.92	
198.0	100.0000	0248.3	068.1	059.4	022.9826	0862.0	138.6	50.25	
199.0	100.0000	0256.3	068.8	059.2	022.8335	0862.8	137.3	50.59	
200.0	100.0000	0264.2	069.4	059.0	022.6682	0863.7	136.0	50.92	
201.0	100.0000	0271.0	070.0	058.7	022.4729	0864.8	134.8	51.22	
202.0	100.0000	0276.3	070.5	058.4	022.2371	0866.2	133.7	51.49	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
203.0	100.0000	0279.9	070.7	058.1	021.9588	0867.9	132.7	51.72
204.0	100.0000	0282.1	070.9	057.7	021.6492	0869.9	131.8	51.92
205.0	100.0000	0283.8	071.1	057.3	021.3238	0872.2	131.0	52.10
206.0	100.0000	0285.5	071.2	056.9	020.9901	0874.6	130.2	52.26
207.0	100.0000	0287.2	071.4	056.4	020.6496	0877.2	129.5	52.42
208.0	100.0000	0288.8	071.5	056.0	020.3018	0879.7	128.8	52.57
209.0	100.0000	0290.3	071.6	055.5	019.9465	0882.0	128.1	52.71
210.0	100.0000	0291.7	071.7	055.0	019.5851	0884.0	127.4	52.83
211.0	100.0000	0293.1	071.8	054.5	019.2187	0885.9	126.8	52.93
212.0	100.0000	0294.5	072.0	054.0	018.8473	0887.5	126.2	53.03
213.0	100.0000	0295.8	072.1	053.5	018.4707	0889.0	125.6	53.11
214.0	100.0000	0296.8	072.1	053.0	018.0887	0890.6	125.1	53.17
215.0	100.0000	0297.6	072.2	052.5	017.7022	0892.6	124.6	53.22
216.0	100.0000	0298.2	072.2	051.9	017.3123	0895.1	124.2	53.26
217.0	100.0000	0298.5	072.3	051.4	016.9202	0898.0	123.8	53.29
218.0	100.0000	0298.7	072.3	050.8	016.5276	0901.3	123.5	53.31
219.0	100.0000	0298.8	072.3	050.2	016.1350	0904.6	123.2	53.31
220.0	100.0000	0298.7	072.3	049.7	015.9732	0908.0	123.0	53.36
221.0	100.0000	0298.4	072.3	049.1	015.9696	0911.2	122.8	53.44
222.0	100.0000	0298.1	072.2	048.5	015.9660	0914.4	122.6	53.51
223.0	100.0000	0298.0	072.2	047.9	015.9624	0917.8	122.5	53.57
224.0	100.0000	0297.9	072.2	047.3	015.9588	0921.3	122.4	53.63
225.0	100.0000	0297.9	072.2	046.7	015.9551	0924.9	122.3	53.67
226.0	100.0000	0297.9	072.2	046.1	015.9515	0928.1	122.3	53.71
227.0	100.0000	0298.0	072.2	045.6	015.9478	0930.9	122.3	53.74
228.0	100.0000	0298.1	072.2	045.0	015.9442	0933.3	122.3	53.75
229.0	100.0000	0298.0	072.2	044.4	015.9405	0935.8	122.4	53.75
230.0	100.0000	0298.0	072.2	043.8	015.9369	0938.7	122.5	53.74
231.0	100.0000	0298.0	072.2	043.2	015.9333	0942.1	122.6	53.73
232.0	100.0000	0298.2	072.2	042.6	015.9297	0946.0	122.8	53.72
233.0	100.0000	0298.4	072.3	042.0	015.9261	0950.4	123.0	53.70
234.0	100.0000	0298.6	072.3	041.5	015.9225	0955.2	123.2	53.68
235.0	100.0000	0298.7	072.3	040.9	015.9190	0960.0	123.5	53.64
236.0	100.0000	0298.7	072.3	040.3	015.9155	0965.0	123.8	53.59
237.0	100.0000	0298.7	072.3	039.8	016.1033	0970.0	124.1	53.59
238.0	100.0000	0298.6	072.3	039.2	016.5407	0975.0	124.5	53.64
239.0	100.0000	0298.7	072.3	038.7	016.9793	0980.0	124.9	53.68
240.0	100.0000	0298.7	072.3	038.1	017.4180	0985.0	125.3	53.71
241.0	100.0000	0298.6	072.3	037.6	017.8547	0989.7	125.8	53.72
242.0	100.0000	0298.5	072.3	037.1	018.2891	0994.3	126.3	53.72
243.0	100.0000	0298.3	072.3	036.5	018.7214	0998.8	126.9	53.70
244.0	100.0000	0298.0	072.2	036.0	019.1500	1003.4	127.4	53.67
245.0	100.0000	0297.8	072.2	035.5	019.5747	1008.0	128.0	53.63
246.0	100.0000	0297.4	072.2	035.1	019.9942	1012.7	128.7	53.58
247.0	100.0000	0296.9	072.1	034.6	020.4081	1017.3	129.4	53.51
248.0	100.0000	0296.6	072.1	034.1	020.8191	1021.7	130.1	53.44
249.0	100.0000	0296.4	072.1	033.7	021.2267	1026.0	130.8	53.36
250.0	100.0000	0296.3	072.1	033.2	021.6300	1030.0	131.5	53.27
251.0	100.0000	0296.2	072.1	032.8	022.0267	1033.8	132.3	53.17
252.0	100.0000	0295.9	072.1	032.4	022.4152	1037.4	133.1	53.06
253.0	100.0000	0295.7	072.0	032.0	022.7960	1041.0	133.9	52.93

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)		Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
254.0	100.0000	0295.3	072.0		031.6	023.1676	1044.6	134.7	52.80
255.0	100.0000	0294.9	072.0		031.2	023.5305	1048.1	135.6	52.67
256.0	100.0000	0294.5	072.0		030.8	023.8847	1051.5	136.5	52.52
257.0	100.0000	0294.2	071.9		030.4	024.2321	1054.8	137.4	52.37
258.0	100.0000	0293.9	071.9		030.1	024.5721	1058.0	138.3	52.21
259.0	100.0000	0293.7	071.9		029.7	024.9597	1060.9	139.3	52.06
260.0	100.0000	0293.6	071.9		029.4	025.3570	1063.6	140.2	51.90
261.0	100.0000	0293.4	071.9		029.1	025.7422	1066.0	141.2	51.73
262.0	100.0000	0293.2	071.8		028.8	026.1148	1068.1	142.2	51.55
263.0	100.0000	0293.0	071.8		028.5	026.4759	1070.0	143.2	51.36
264.0	100.0000	0292.8	071.8		028.2	026.8263	1071.5	144.2	51.16
265.0	100.0000	0292.6	071.8		027.9	027.1657	1072.8	145.3	50.95
266.0	100.0000	0292.4	071.8		027.7	027.4930	1073.7	146.3	50.74
267.0	100.0000	0292.3	071.8		027.4	027.8085	1074.4	147.4	50.52
268.0	100.0000	0292.1	071.8		027.2	028.1128	1074.7	148.5	50.29
269.0	100.0000	0291.9	071.7		026.9	028.4037	1074.9	149.6	50.05
270.0	100.0000	0291.6	071.7		026.7	028.6794	1074.8	150.7	49.81
271.0	100.0000	0291.1	071.7		026.5	028.9373	1074.6	151.8	49.57
272.0	100.0000	0290.7	071.6		026.3	029.1830	1074.4	153.0	49.31
273.0	100.0000	0290.2	071.6		026.1	029.4164	1074.1	154.1	49.06
274.0	100.0000	0289.8	071.6		026.0	029.6390	1073.7	155.3	48.80
275.0	100.0000	0289.4	071.5		025.8	029.8510	1073.4	156.4	48.54
276.0	100.0000	0289.0	071.5		025.6	030.0515	1073.0	157.6	48.28
277.0	100.0000	0288.6	071.5		025.5	030.2388	1072.7	158.8	48.01
278.0	100.0000	0288.1	071.4		025.4	030.4086	1072.4	160.0	47.74
279.0	100.0000	0287.5	071.4		025.2	030.5655	1072.0	161.2	47.46
280.0	100.0000	0287.0	071.3		025.1	030.7122	1071.7	162.4	47.19
281.0	100.0000	0286.7	071.3		025.0	030.8553	1071.5	163.6	46.91
282.0	100.0000	0286.7	071.3		024.9	030.9982	1071.1	164.8	46.64
283.0	100.0000	0286.6	071.3		024.8	031.1297	1070.9	166.0	46.37
284.0	100.0000	0286.6	071.3		024.7	031.2486	1070.6	167.2	46.09
285.0	100.0000	0286.5	071.3		024.6	031.3556	1070.4	168.4	45.82
286.0	100.0000	0286.4	071.3		024.6	031.4507	1070.2	169.7	45.55

06-23-2013

Terrain Data: NGDC 30 SEC

FMOver Analysis

KKMV

KGTM

Channel = 291C

Max ERP = 60 kW

RCAMSL = 2550 M

N. Lat. 42 20 06.0

W. Lng. 113 36 15.0

Protected

60 dBu

Channel = 292C1

Max ERP = 100 kW

RCAMSL = 1741 M

N. Lat. 43 32 34.0

W. Lng. 111 53 07.0

Interfering

54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
346.0	060.0000	1031.7	100.2	257.9	100.0000	0293.9	167.5	40.66	
347.0	060.0000	1033.6	100.3	257.9	100.0000	0293.9	165.9	40.93	
348.0	060.0000	1035.8	100.3	258.0	100.0000	0293.9	164.2	41.23	
349.0	060.0000	1037.2	100.4	257.9	100.0000	0293.9	162.4	41.54	
350.0	060.0000	1036.5	100.4	257.9	100.0000	0293.9	160.7	41.85	
351.0	060.0000	1035.0	100.3	257.9	100.0000	0293.9	158.9	42.16	
352.0	060.0000	1035.1	100.3	257.8	100.0000	0293.9	157.2	42.47	
353.0	060.0000	1036.6	100.4	257.7	100.0000	0294.0	155.4	42.78	
354.0	060.0000	1037.6	100.4	257.7	100.0000	0294.0	153.7	43.10	
355.0	060.0000	1038.6	100.4	257.6	100.0000	0294.0	151.9	43.41	
356.0	060.0000	1040.2	100.4	257.5	100.0000	0294.0	150.2	43.73	
357.0	060.0000	1038.2	100.4	257.4	100.0000	0294.1	148.5	44.06	
358.0	060.0000	1036.2	100.3	257.2	100.0000	0294.1	146.7	44.38	
359.0	060.0000	1035.4	100.3	257.0	100.0000	0294.2	145.0	44.72	
000.0	060.0000	1036.4	100.4	256.9	100.0000	0294.2	143.3	45.06	
001.0	059.4134	1037.2	100.3	256.7	100.0000	0294.3	141.7	45.40	
002.0	058.8298	1036.5	100.1	256.4	100.0000	0294.4	140.0	45.75	
003.0	058.2490	1033.3	099.9	256.1	100.0000	0294.5	138.4	46.09	
004.0	057.6710	1029.2	099.7	255.8	100.0000	0294.6	136.8	46.43	
005.0	057.0960	1027.1	099.5	255.5	100.0000	0294.7	135.2	46.78	
006.0	056.5239	1025.7	099.4	255.2	100.0000	0294.9	133.7	47.12	
007.0	055.9546	1024.4	099.2	254.8	100.0000	0295.0	132.1	47.46	
008.0	055.3882	1021.0	099.0	254.4	100.0000	0295.2	130.6	47.78	
009.0	054.8247	1017.4	098.8	254.0	100.0000	0295.3	129.1	48.10	
010.0	054.2641	1014.1	098.6	253.6	100.0000	0295.5	127.7	48.41	
011.0	052.4872	1011.9	098.2	253.0	100.0000	0295.7	126.4	48.69	
012.0	050.7399	1010.5	097.8	252.5	100.0000	0295.8	125.1	48.96	
013.0	049.0221	1009.9	097.3	251.9	100.0000	0296.0	123.8	49.23	
014.0	047.3340	1012.1	097.0	251.3	100.0000	0296.1	122.6	49.50	
015.0	045.6754	1017.5	096.7	250.8	100.0000	0296.2	121.4	49.76	
016.0	044.0464	1025.3	096.5	250.2	100.0000	0296.3	120.1	50.03	
017.0	042.4470	1034.0	096.2	249.6	100.0000	0296.4	118.9	50.30	
018.0	040.8771	1041.5	096.0	249.0	100.0000	0296.4	117.8	50.55	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
019.0	039.3368	1047.6	095.6	248.4	100.0000	0296.5	116.7	50.80
020.0	037.8262	1053.0	095.3	247.7	100.0000	0296.7	115.7	51.04
021.0	036.3824	1057.6	095.0	247.0	100.0000	0296.9	114.8	51.27
022.0	034.9668	1061.5	094.6	246.3	100.0000	0297.3	113.9	51.50
023.0	033.5792	1065.1	094.2	245.5	100.0000	0297.6	113.1	51.71
024.0	032.2198	1068.4	093.8	244.8	100.0000	0297.8	112.3	51.91
025.0	030.8884	1071.4	093.4	244.0	100.0000	0298.1	111.6	52.10
026.0	029.5851	1073.8	092.9	243.2	100.0000	0298.3	110.9	52.27
027.0	028.3099	1074.9	092.5	242.3	100.0000	0298.4	110.4	52.42
028.0	027.0628	1072.4	091.9	241.5	100.0000	0298.6	110.0	52.55
029.0	025.8438	1066.6	091.3	240.6	100.0000	0298.7	109.7	52.63
030.0	024.6529	1058.7	090.6	239.7	100.0000	0298.7	109.5	52.69
031.0	023.6932	1049.7	090.0	238.8	100.0000	0298.7	109.3	52.74
032.0	022.7526	1040.6	089.3	237.9	100.0000	0298.6	109.1	52.77
033.0	021.8310	1031.9	088.7	237.0	100.0000	0298.7	109.1	52.79
034.0	020.9285	1022.9	088.0	236.2	100.0000	0298.7	109.1	52.79
035.0	020.0450	1013.2	087.4	235.3	100.0000	0298.7	109.2	52.76
036.0	019.1806	1003.7	086.7	234.4	100.0000	0298.6	109.4	52.72
037.0	018.3353	0994.8	086.0	233.6	100.0000	0298.5	109.6	52.65
038.0	017.5090	0986.0	085.3	232.7	100.0000	0298.3	109.8	52.57
039.0	016.7017	0976.9	084.6	231.9	100.0000	0298.2	110.2	52.47
040.0	015.9135	0967.8	083.9	231.1	100.0000	0298.1	110.6	52.35
041.0	015.9197	0959.0	083.7	230.3	100.0000	0298.0	110.6	52.37
042.0	015.9259	0950.7	083.5	229.5	100.0000	0298.0	110.5	52.38
043.0	015.9320	0943.4	083.4	228.8	100.0000	0298.0	110.5	52.38
044.0	015.9382	0937.5	083.3	228.0	100.0000	0298.1	110.5	52.38
045.0	015.9444	0933.2	083.2	227.3	100.0000	0298.1	110.6	52.37
046.0	015.9506	0928.8	083.1	226.5	100.0000	0298.0	110.6	52.35
047.0	015.9568	0923.3	083.0	225.8	100.0000	0297.9	110.8	52.31
048.0	015.9630	0917.2	082.8	225.0	100.0000	0297.9	111.0	52.26
049.0	015.9692	0911.6	082.7	224.3	100.0000	0297.9	111.2	52.20
050.0	015.9754	0906.0	082.6	223.5	100.0000	0298.0	111.5	52.13
051.0	016.6637	0900.1	082.9	222.8	100.0000	0298.0	111.3	52.16
052.0	017.3666	0894.7	083.3	222.0	100.0000	0298.1	111.3	52.19
053.0	018.0841	0890.7	083.6	221.3	100.0000	0298.3	111.2	52.20
054.0	018.8160	0887.6	083.9	220.5	100.0000	0298.5	111.2	52.21
055.0	019.5625	0884.2	084.3	219.7	100.0000	0298.7	111.2	52.21
056.0	020.3234	0879.5	084.6	218.9	100.0000	0298.8	111.4	52.17
057.0	021.0989	0873.8	084.8	218.2	100.0000	0298.7	111.6	52.11
058.0	021.8890	0868.3	085.1	217.4	100.0000	0298.6	111.9	52.04
059.0	022.6935	0863.5	085.3	216.7	100.0000	0298.4	112.2	51.95
060.0	023.5126	0859.4	085.6	215.9	100.0000	0298.1	112.5	51.85
061.0	024.2011	0856.4	085.8	215.2	100.0000	0297.7	113.0	51.73
062.0	024.8996	0854.5	086.1	214.4	100.0000	0297.2	113.4	51.60
063.0	025.6081	0853.4	086.4	213.7	100.0000	0296.5	113.9	51.47
064.0	026.3264	0851.3	086.6	213.0	100.0000	0295.8	114.5	51.31
065.0	027.0547	0847.6	086.8	212.3	100.0000	0294.9	115.2	51.13
066.0	027.7930	0841.7	086.9	211.7	100.0000	0294.0	115.9	50.93
067.0	028.5412	0833.8	087.0	211.0	100.0000	0293.2	116.7	50.72
068.0	029.2993	0824.0	087.0	210.4	100.0000	0292.3	117.7	50.49
069.0	030.0673	0813.6	086.9	209.9	100.0000	0291.5	118.6	50.25

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)		Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
070.0	030.8453	0801.7	086.8		209.4	100.0000	0290.8	119.7	49.99
071.0	031.1991	0786.8	086.5		208.9	100.0000	0290.2	121.0	49.70
072.0	031.5549	0771.4	086.1		208.5	100.0000	0289.6	122.3	49.41
073.0	031.9127	0757.9	085.8		208.1	100.0000	0289.0	123.5	49.13
074.0	032.2725	0748.4	085.6		207.7	100.0000	0288.4	124.8	48.86
075.0	032.6344	0741.8	085.5		207.3	100.0000	0287.7	125.9	48.59
076.0	032.9982	0735.1	085.4		206.9	100.0000	0287.0	127.1	48.33
077.0	033.3641	0728.8	085.3		206.5	100.0000	0286.4	128.3	48.06
078.0	033.7320	0723.3	085.2		206.1	100.0000	0285.7	129.5	47.80
079.0	034.1019	0720.2	085.2		205.7	100.0000	0285.1	130.7	47.53
080.0	034.4738	0718.9	085.3		205.3	100.0000	0284.4	131.9	47.27
081.0	034.3557	0718.6	085.3		205.0	100.0000	0283.8	133.2	46.99
082.0	034.2377	0718.9	085.2		204.7	100.0000	0283.3	134.4	46.71
083.0	034.1200	0718.8	085.2		204.4	100.0000	0282.7	135.7	46.42
084.0	034.0025	0715.2	085.0		204.1	100.0000	0282.3	137.1	46.12
085.0	033.8851	0710.6	084.8		203.9	100.0000	0281.9	138.5	45.82
086.0	033.7680	0707.3	084.7		203.6	100.0000	0281.4	139.9	45.52
087.0	033.6511	0704.8	084.6		203.4	100.0000	0280.9	141.2	45.23
088.0	033.5343	0702.4	084.5		203.2	100.0000	0280.4	142.6	44.94
089.0	033.4178	0700.0	084.3		203.0	100.0000	0279.9	144.0	44.66
090.0	033.3015	0697.5	084.2		202.8	100.0000	0279.4	145.4	44.38
091.0	032.9538	0695.8	084.0		202.7	100.0000	0279.0	146.8	44.10
092.0	032.6078	0695.4	083.9		202.5	100.0000	0278.5	148.3	43.83
093.0	032.2637	0693.6	083.8		202.4	100.0000	0278.0	149.7	43.56
094.0	031.9215	0691.0	083.6		202.3	100.0000	0277.6	151.2	43.29
095.0	031.5810	0689.2	083.4		202.2	100.0000	0277.3	152.6	43.02
096.0	031.2424	0686.0	083.2		202.2	100.0000	0277.0	154.1	42.75
097.0	030.9056	0682.5	082.9		202.1	100.0000	0276.8	155.5	42.48
098.0	030.5706	0680.4	082.7		202.0	100.0000	0276.5	157.0	42.22
099.0	030.2375	0679.8	082.6		202.0	100.0000	0276.2	158.4	41.96
100.0	029.9062	0680.4	082.5		201.9	100.0000	0275.9	159.9	41.70
101.0	028.9648	0684.4	082.3		201.9	100.0000	0275.8	161.3	41.44
102.0	028.0385	0688.0	082.1		201.9	100.0000	0275.8	162.8	41.18
103.0	027.1273	0689.8	081.8		201.9	100.0000	0275.9	164.2	40.93
104.0	026.2311	0691.9	081.5		201.9	100.0000	0276.0	165.7	40.68
105.0	025.3500	0693.6	081.2		202.0	100.0000	0276.2	167.1	40.44