

KKMV(FM)
Rupert, 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 the instant 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 its 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.

KKMV(FM) (FCC Facility ID# 16269) proposes to modify its currently Licensed Facilities using the following parameters:

Tech Box:

Channel:	291
Class:	C
Antenna Coordinates:	N42-20-06, W113-36-15 (NAD 27)
Allotment Ref. Coordinates:	N42-43-06, W113-07-01 (NAD 27)
ASRN:	N/A
Tower Height AGL:	60 m
COR AMSL:	2550 m
COR AGL:	56 m
COR HAAT:	761 m
ERP:	60 kW
Directional Antenna:	Yes - see Exhibit 7

Allotment Modifications:

Exhibit 1 is an allotment reference site channel spacings study for KKMV(FM) on Channel 291C at Rupert, 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 in order to request the One-Step Upgrade:

Allotment Reference Coordinates: N42-43-06, W113-07-01 (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 KKMV(FM)'s community of license – Rupert, ID. As can be seen in the Exhibit, 100% of Rupert'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 KKMV(FM)'s community of license – Rupert, ID. As can be seen in the Exhibit, 100% of Rupert'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 KKMV(FM) antenna site. It notes that the proposed KKMV(FM) antenna site would otherwise be slightly shortspaced to:

-KGTM(FM) Rexburg, ID 292C1 (see Contingently Proposed 73.215 Application)

-AL2516 Centerville, UT on 290C (see RM-11363 (MB Docket 05-243)*)

*This is the Reserved allotment for KNRS-FM Centerville, UT.

Therefore, the applicant requests Section 73.215 contour protection processing.

KKMV(FM) is eligible to request 73.215 Contour Protection towards KGTM(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 KKMV(FM) 291C antenna location is spaced 194.13 kilometers from the KGTM(FM) site. In order to be eligible for 73.215 Contour Protection, the minimum “C to C1” spacing for first adjacent channel stations must be at least 188 kilometers. The proposed KKMV(FM) 291C antenna site satisfies this requirement by 6.13 kilometers.

Using the facilities proposed herein, KKMV(FM) 291C complies with the contour protection requirements of Section 73.215 towards KGTM(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 KGTM(FM) itself proposes Section 73.215 operations with Class C1 facilities. Therefore, the actual KGTM facilities shall be examined.

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

KKMV(FM) is eligible to request 73.215 Contour Protection towards the Reserved Allotment AL2516 for KNRS-FM's future use at Centerville, UT, 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 KKMV(FM) antenna location is spaced 219.88 kilometers from the AL2516 site. In order to be eligible for 73.215 Contour Protection, the minimum "C to C" spacing for first adjacent channel stations must be at least 209 kilometers. The proposed KKMV(FM) antenna site satisfies this requirement by 10.88 kilometers.

Using the facilities proposed herein, KKMV(FM) complies with the contour protection requirements of Section 73.215 towards AL2516. The attached overlap tabulation studies and

overlap map in Exhibit 5B 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 AL2516 does not utilize Class C maximum class facilities, the following overlap studies were conducted assuming “Maximized” Class C Facilities for AL2516 (100 kW at an HAAT of 600 meters).

Using the KKMV(FM) technical parameters proposed in this application, Exhibit 5B demonstrates that the proposed KKMV(FM) F(50,50) 60 dBu Protected Contour does not overlap the F(50,10) 54 dBu Interfering Contour of AL2516 operations on Channel 290C. Likewise, Exhibit 5B demonstrates that the F(50,50) 60 dBu Protected Contour for AL2516 does not overlap the proposed F(50,10) 54 dBu Interfering Contour of the instant KKMV(FM) application on 291C. Therefore, it appears as though the instant application meets the requirements of Section 73.215 towards AL2516.

Downward Radiation Study (FM Model):

The proposed FM Facility has been evaluated in terms of potential radiofrequency electromagnetic field exposure at ground level in accordance with OET Bulletin No. 65, Evaluating Compliance with FCC Specified Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields (OET Bulletin 65, Second Edition 97-01, August, 1997). The Commission’s FM Model Power Density Prediction program was employed to determine the Field. Using the ERI/Jampro "Rototiller" Style antenna with 6 sections and 0.5 wavelength spacing, and the AGL height and ERP proposed in this application, the highest predicted power

density 2 meters above ground is less than 8.4% of the Uncontrolled Standard with a Power Density of 16.7 microwatts per square centimeter 312 meters from the base of the tower.

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

KKMV(FM) 291C Rupert, ID
Section 73.207 Antenna Site Channel Study

REFERENCE	CLASS = C	DISPLAY DATES
42 43 06.0 N.		DATA 06-22-13
113 07 01.0 W.	Current Spacings to 3rd Adj.	SEARCH 06-23-13

----- Channel 291 - 106.1 MHz -----

Call	Channel	Location	Azi	Dist	FCC	Margin
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KKMV	LIC-Z	291C0	Rupert	ID	223.3	58.44	281.0	-222.6
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Of Note:
Current KKMV Authorization being modified.

KQEZ	LIC	292C1	Shelley	ID	47.1	135.76	209.0	-73.2
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Of No Concern:
Contingently proposed Channel Substitution of Channel 251C1 for Channel 292C1 at Shelley for KQEZ(FM)'s use eliminates conflict.

KBMG	LIC	291C	Evanston	WY	138.7	270.54	290.0	-19.5
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Of No Concern:
Channel 291C deleted at Evanston, WY, in MB Docket 05-243.

KYUN	LIC-N	294C	Hailey	ID	306.8	105.03	105.0	0.03
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AL2516	RSV-A	290C	Centerville	UT	161.3	241.04	241.0	0.04
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ALLO	ADD	292C1	Rexburg	ID	43.5	209.12	209.0	0.12
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KTHK	LIC-D	288C1	Idaho Falls	ID	51.7	114.65	105.0	9.7
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KAGF-LP	LIC	288L1	Twin Falls	ID	262.4	109.59	93.0	16.6
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Of No Concern:
Applicant does not object to KAGF-LP's continued operation on Channel 288.
The D/U ration within KAJF-LP's interfering contour will decrease as a result of this upgrade for KKMV(FM).

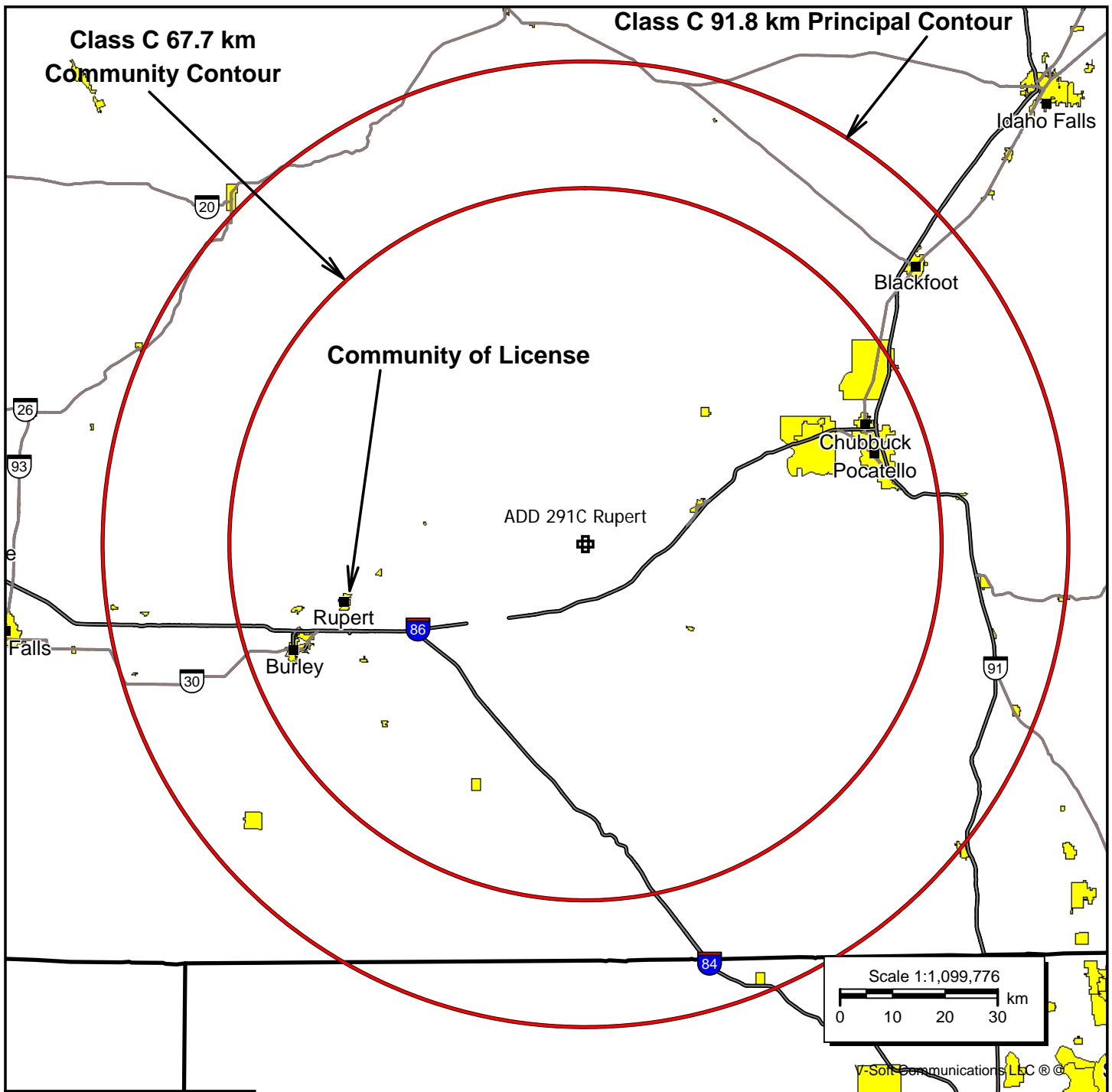
KCIX	LIC	290C	Garden City	ID	295.5	268.12	241.0	27.1
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AL2573	RSV-A	292C	Evanston	WY	138.7	270.54	241.0	29.5
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RSV-R = reserved - needs protection, RSV-A = allocation.

Exhibit 2

Allotment Reference Site City-Grade Coverage Map



ADD 291C Rupert

Channel: 291C
Frequency: 106.1 MHz
Latitude: 42-43-06 N
Longitude: 113-07-01 W
COR AGL Height: 605.18 m
COR AMSL Height: 1952.02 m
Base Elevation: 1346.84 m
COR HAAT: 600.0 m
ERP: 100.00 kW
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None

Exhibit 3

Allotment Reference Site Topographic Map

REGISTER ROCK QUADRANGLE
IDAHO-POWER CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)



PROVISIONAL MAP
Produced from original
manuscript drawings. Infor-
mation shown as of date of

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U.S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225
OR RESTON, VIRGINIA 22092

1	2	3	1 Rattlesnake Water
			2 Pilgrimage Site
4		5	3 American Falls St
			4 Gifford Spring
6	7	8	5 Naylor
			6 North Chapel Mt
			7 Budget Park
			8 Rockland West

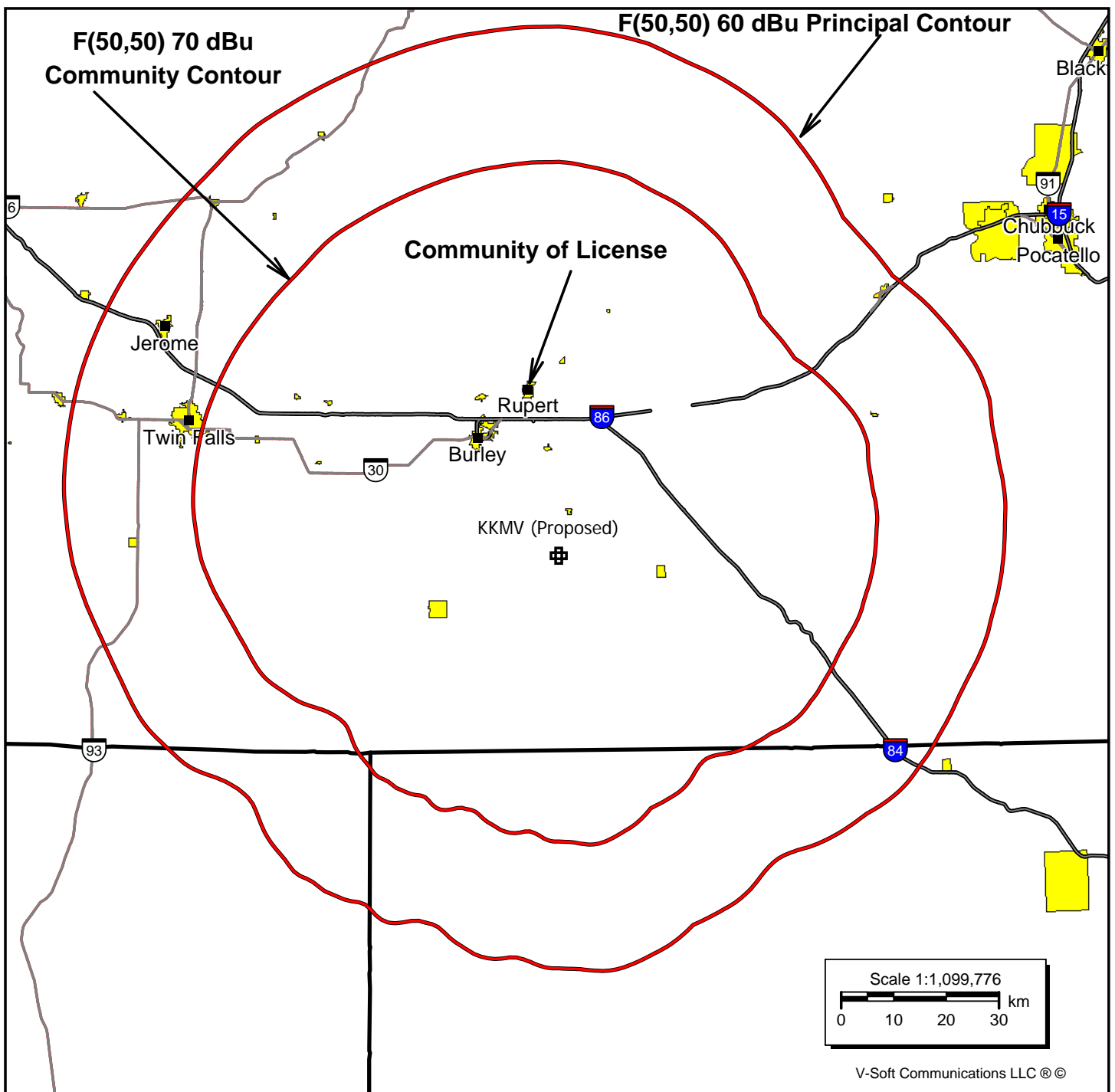
REGISTER ROCK, IDAHO
PROVISIONAL EDITION 1984

Q113-F1-TF-024

Exhibit 4

Proposed Antenna Site Contour Map:

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



V-Soft Communications LLC ©

KKMV (Proposed)

Proposed
Channel: 291C
Frequency: 106.1 MHz
Latitude: 42-20-06 N
Longitude: 113-36-15 W
COR AGL Height: 56.0 m
COR AMSL Height: 2550.0 m
Base Elevation: 2494.0 m
COR HAAT: 761.0 m
ERP: 60.00 kW
Horiz. Pattern: Directional
Vert. Pattern: No
Prop Model: None

Exhibit 5

Proposed Antenna Site Channel Spacings Study

KMMV(FM) 291C Rupert, ID
Section 73.207 Antenna Site Channel Study

REFERENCE	CLASS = C	DISPLAY DATES
42 20 06.0 N.		DATA 06-22-13
113 36 15.0 W.	Current Spacings to 3rd Adj.	SEARCH 06-23-13
----- Channel 291 - 106.1 MHz -----		

Call	Channel	Location		Azi	Dist	FCC	Margin
KMMV	LIC-Z 291C0	Rupert	ID	0.0	0.00	281.0	-281.0
Of Note: Current KMMV Authorization being modified.							
ALLO	ADD 291C	Rupert	ID	43.0	58.44	290.0	-231.6
Of Note: Instantly proposed One-Step Upgrade Allotment Site for Channel 291C at Rupert.							
AL2516	RSV-A 290C	Centerville	UT	147.4	219.88	241.0	-21.1
Of Note: Section 73.215 Contour Protection Processing requested towards the allotment of Channel 290C at Centerville, UT, for KNRS-FM's use.							
KAGF-LP	LIC 288L1	Twin Falls	ID	292.0	73.97	93.0	-19.0
Of No Concern: Applicant does not object to KAGF-LP's continued operation on Channel 288. The D/U ratio within KAGF-LP's interfering contour will decrease as a result of this upgrade for KMMV(FM).							
KBMG	LIC 291C	Evanston	WY	126.0	271.54	290.0	-18.5
Of No Concern: Channel 291C deleted at Evanston, WY, in MB Docket 05-243.							
KGTM	APP 292C1	Rexburg	ID	45.6	194.13	209.0	-14.9
Of Note: Contingently proposed antenna site for KGTM(FM) 292C1 at Rexburg which also requests Section 73.215 contour protection processing.							
KQEZ	LIC 292C1	Shelley	ID	45.6	194.13	209.0	-14.9
Of No Concern: Contingently proposed Channel Substitution of Channel 251C1 for Channel 292C1 at Shelley for KQEZ(FM)'s use eliminates conflict.							
KYUN	LIC-N 294C	Hailey	ID	337.1	114.11	105.0	9.1
KCIX	LIC 290C	Garden City	ID	308.8	257.23	241.0	16.2
AL2573	RSV-A 292C	Evanston	WY	126.0	271.54	241.0	30.5
ALLO	ADD 292C1	Rexburg	ID	43.2	267.57	209.0	58.6

RSV-R = reserved - needs protection, RSV-A = allocation.

Exhibit 5A

Section 73.215 Contour Overlap Tabulations and Contour Overlap Map

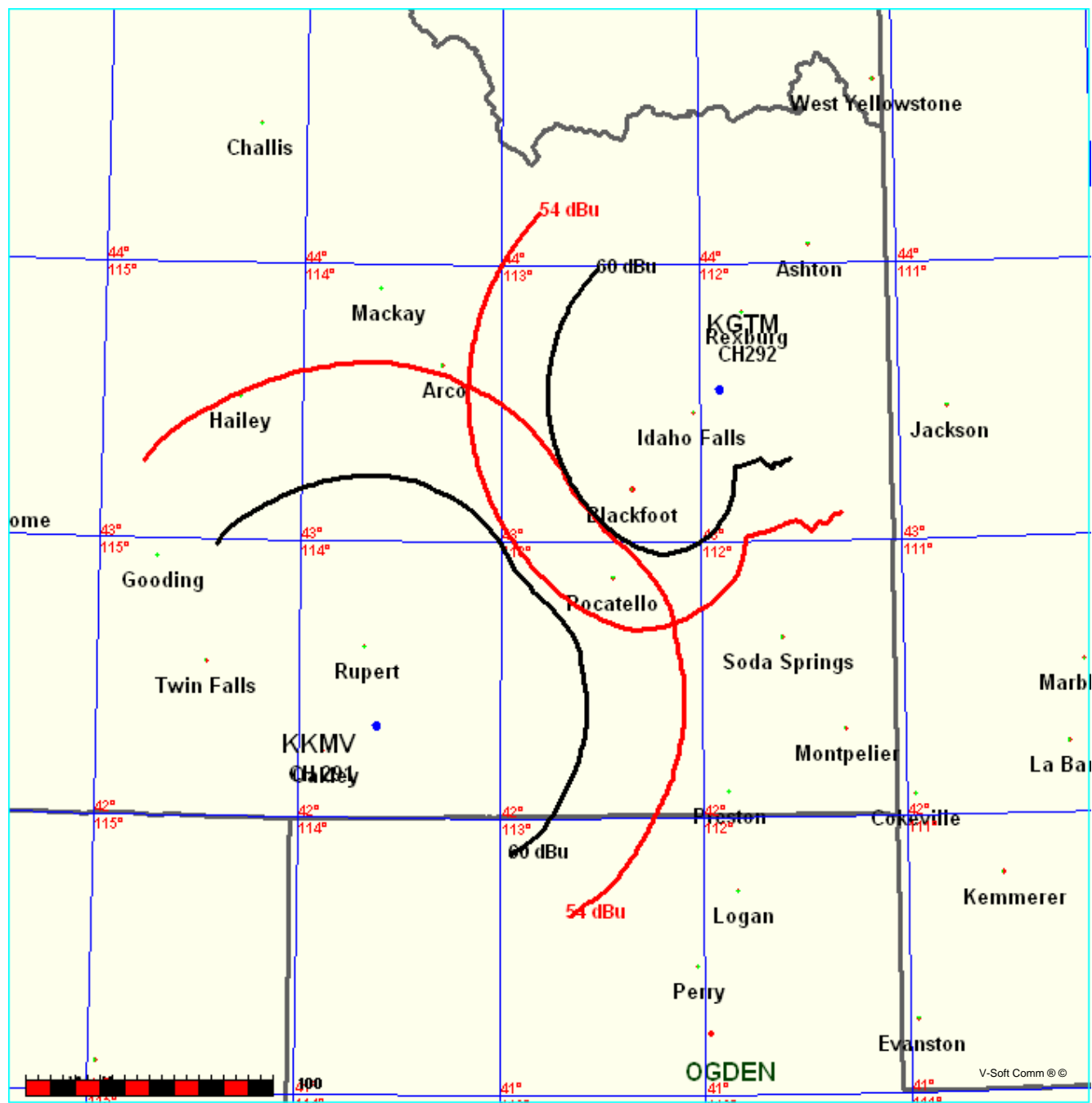
**KKMV(FM) 291C
vs:
KGTM(FM) 292C1**

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

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

KKMV CH 291 C 73.215 Z
Lat= 42 20 06.0, Lng= 113 36 15.0
60.0 kW 761 M HAAT, 2548.6 M COR
Prot.= 60 dBu, Intef.= 54 dBu

KGTM CH 292 C1 73.215 N BLH20011127ABJ
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



06-23-2013

Terrain Data: NGDC 30 SEC

FMOver Analysis

KKMV

KGTM BLH20011127ABJ

Channel = 291C

Max ERP = 60 kW

RCAMSL = 2548.55 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	1030.2	100.2	257.9	100.0000	0293.9	167.5	40.66	
347.0	060.0000	1032.2	100.3	257.9	100.0000	0293.9	165.9	40.93	
348.0	060.0000	1034.4	100.3	257.9	100.0000	0293.9	164.2	41.23	
349.0	060.0000	1035.7	100.3	257.9	100.0000	0293.9	162.4	41.54	
350.0	060.0000	1035.1	100.3	257.9	100.0000	0293.9	160.7	41.85	
351.0	060.0000	1033.5	100.3	257.8	100.0000	0293.9	158.9	42.16	
352.0	060.0000	1033.7	100.3	257.8	100.0000	0293.9	157.2	42.47	
353.0	060.0000	1035.1	100.3	257.7	100.0000	0294.0	155.4	42.78	
354.0	060.0000	1036.1	100.3	257.7	100.0000	0294.0	153.7	43.09	
355.0	060.0000	1037.1	100.4	257.6	100.0000	0294.0	151.9	43.41	
356.0	060.0000	1038.7	100.4	257.5	100.0000	0294.0	150.2	43.73	
357.0	060.0000	1036.8	100.4	257.3	100.0000	0294.1	148.5	44.06	
358.0	060.0000	1034.7	100.3	257.2	100.0000	0294.1	146.8	44.38	
359.0	060.0000	1034.0	100.3	257.0	100.0000	0294.2	145.0	44.71	
000.0	060.0000	1034.9	100.3	256.9	100.0000	0294.2	143.3	45.06	
001.0	059.4134	1035.8	100.2	256.7	100.0000	0294.3	141.7	45.40	
002.0	058.8298	1035.1	100.1	256.4	100.0000	0294.4	140.0	45.74	
003.0	058.2490	1031.8	099.9	256.1	100.0000	0294.5	138.4	46.09	
004.0	057.6710	1027.7	099.7	255.8	100.0000	0294.6	136.8	46.43	
005.0	057.0960	1025.7	099.5	255.5	100.0000	0294.7	135.2	46.77	
006.0	056.5239	1024.2	099.4	255.1	100.0000	0294.9	133.7	47.12	
007.0	055.9546	1022.9	099.2	254.8	100.0000	0295.0	132.1	47.45	
008.0	055.3882	1019.5	099.0	254.4	100.0000	0295.2	130.6	47.78	
009.0	054.8247	1015.9	098.8	254.0	100.0000	0295.3	129.1	48.10	
010.0	054.2641	1012.7	098.6	253.6	100.0000	0295.5	127.7	48.41	
011.0	052.4872	1010.5	098.2	253.0	100.0000	0295.7	126.4	48.69	
012.0	050.7399	1009.0	097.7	252.5	100.0000	0295.8	125.1	48.96	
013.0	049.0221	1008.5	097.3	251.9	100.0000	0296.0	123.9	49.23	
014.0	047.3340	1010.7	097.0	251.3	100.0000	0296.1	122.6	49.49	
015.0	045.6754	1016.1	096.7	250.8	100.0000	0296.2	121.4	49.76	
016.0	044.0464	1023.8	096.4	250.2	100.0000	0296.3	120.2	50.03	
017.0	042.4470	1032.5	096.2	249.6	100.0000	0296.4	119.0	50.29	
018.0	040.8771	1040.0	095.9	249.0	100.0000	0296.4	117.8	50.55	
019.0	039.3368	1046.2	095.6	248.4	100.0000	0296.5	116.8	50.80	
020.0	037.8262	1051.6	095.3	247.7	100.0000	0296.7	115.8	51.04	
021.0	036.3824	1056.2	094.9	247.0	100.0000	0296.9	114.8	51.27	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
022.0	034.9668	1060.0	094.6	246.3	100.0000	0297.3	113.9	51.49
023.0	033.5792	1063.7	094.2	245.5	100.0000	0297.6	113.1	51.71
024.0	032.2198	1067.0	093.8	244.8	100.0000	0297.8	112.3	51.91
025.0	030.8884	1069.9	093.3	244.0	100.0000	0298.1	111.6	52.09
026.0	029.5851	1072.4	092.9	243.2	100.0000	0298.3	111.0	52.27
027.0	028.3099	1073.4	092.4	242.3	100.0000	0298.4	110.4	52.42
028.0	027.0628	1071.0	091.9	241.5	100.0000	0298.6	110.0	52.54
029.0	025.8438	1065.1	091.2	240.6	100.0000	0298.7	109.7	52.63
030.0	024.6529	1057.3	090.6	239.7	100.0000	0298.7	109.5	52.68
031.0	023.6932	1048.2	089.9	238.8	100.0000	0298.7	109.3	52.73
032.0	022.7526	1039.2	089.3	237.9	100.0000	0298.6	109.2	52.77
033.0	021.8310	1030.5	088.7	237.0	100.0000	0298.7	109.1	52.78
034.0	020.9285	1021.5	088.0	236.2	100.0000	0298.7	109.1	52.78
035.0	020.0450	1011.8	087.3	235.3	100.0000	0298.7	109.2	52.75
036.0	019.1806	1002.2	086.7	234.4	100.0000	0298.6	109.4	52.71
037.0	018.3353	0993.3	086.0	233.6	100.0000	0298.5	109.6	52.64
038.0	017.5090	0984.5	085.3	232.7	100.0000	0298.3	109.9	52.56
039.0	016.7017	0975.4	084.6	231.9	100.0000	0298.2	110.2	52.46
040.0	015.9135	0966.3	083.9	231.1	100.0000	0298.1	110.6	52.35
041.0	015.9197	0957.6	083.7	230.3	100.0000	0298.0	110.6	52.36
042.0	015.9259	0949.3	083.5	229.5	100.0000	0298.0	110.6	52.37
043.0	015.9320	0941.9	083.4	228.8	100.0000	0298.0	110.5	52.37
044.0	015.9382	0936.1	083.2	228.0	100.0000	0298.1	110.6	52.37
045.0	015.9444	0931.7	083.1	227.3	100.0000	0298.1	110.6	52.36
046.0	015.9506	0927.4	083.1	226.5	100.0000	0298.0	110.7	52.34
047.0	015.9568	0921.8	082.9	225.8	100.0000	0297.9	110.8	52.30
048.0	015.9630	0915.8	082.8	225.0	100.0000	0297.9	111.0	52.25
049.0	015.9692	0910.1	082.7	224.3	100.0000	0297.9	111.2	52.19
050.0	015.9754	0904.6	082.6	223.5	100.0000	0298.0	111.5	52.12
051.0	016.6637	0898.7	082.9	222.8	100.0000	0298.0	111.4	52.16
052.0	017.3666	0893.3	083.2	222.0	100.0000	0298.1	111.3	52.18
053.0	018.0841	0889.2	083.6	221.3	100.0000	0298.3	111.2	52.20
054.0	018.8160	0886.2	083.9	220.5	100.0000	0298.5	111.2	52.21
055.0	019.5625	0882.7	084.2	219.7	100.0000	0298.7	111.3	52.20
056.0	020.3234	0878.1	084.5	218.9	100.0000	0298.8	111.4	52.16
057.0	021.0989	0872.4	084.8	218.2	100.0000	0298.7	111.6	52.10
058.0	021.8890	0866.9	085.1	217.4	100.0000	0298.6	111.9	52.03
059.0	022.6935	0862.1	085.3	216.7	100.0000	0298.4	112.2	51.94
060.0	023.5126	0857.9	085.6	215.9	100.0000	0298.1	112.6	51.84
061.0	024.2011	0854.9	085.8	215.2	100.0000	0297.7	113.0	51.72
062.0	024.8996	0853.1	086.1	214.4	100.0000	0297.2	113.5	51.60
063.0	025.6081	0851.9	086.3	213.7	100.0000	0296.6	114.0	51.46
064.0	026.3264	0849.8	086.6	213.0	100.0000	0295.8	114.5	51.30
065.0	027.0547	0846.1	086.7	212.3	100.0000	0294.9	115.2	51.12
066.0	027.7930	0840.2	086.9	211.7	100.0000	0294.1	115.9	50.93
067.0	028.5412	0832.3	086.9	211.0	100.0000	0293.2	116.8	50.71
068.0	029.2993	0822.5	086.9	210.5	100.0000	0292.4	117.7	50.48
069.0	030.0673	0812.2	086.9	209.9	100.0000	0291.6	118.7	50.24
070.0	030.8453	0800.2	086.8	209.4	100.0000	0290.8	119.7	49.99
071.0	031.1991	0785.4	086.4	208.9	100.0000	0290.2	121.0	49.70
072.0	031.5549	0770.0	086.1	208.6	100.0000	0289.6	122.3	49.40

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
073.0	031.9127	0756.5	085.8	208.2	100.0000	0289.0	123.6	49.12
074.0	032.2725	0747.0	085.6	207.8	100.0000	0288.4	124.8	48.85
075.0	032.6344	0740.4	085.5	207.3	100.0000	0287.7	126.0	48.59
076.0	032.9982	0733.7	085.3	206.9	100.0000	0287.1	127.2	48.32
077.0	033.3641	0727.3	085.3	206.5	100.0000	0286.4	128.4	48.06
078.0	033.7320	0721.8	085.2	206.2	100.0000	0285.8	129.6	47.79
079.0	034.1019	0718.7	085.2	205.8	100.0000	0285.1	130.8	47.53
080.0	034.4738	0717.5	085.3	205.4	100.0000	0284.4	131.9	47.26
081.0	034.3557	0717.1	085.2	205.0	100.0000	0283.9	133.2	46.98
082.0	034.2377	0717.5	085.2	204.7	100.0000	0283.3	134.5	46.70
083.0	034.1200	0717.3	085.1	204.4	100.0000	0282.8	135.7	46.42
084.0	034.0025	0713.7	085.0	204.1	100.0000	0282.3	137.1	46.12
085.0	033.8851	0709.1	084.8	203.9	100.0000	0281.9	138.5	45.82
086.0	033.7680	0705.8	084.6	203.7	100.0000	0281.4	139.9	45.52
087.0	033.6511	0703.3	084.5	203.4	100.0000	0281.0	141.3	45.23
088.0	033.5343	0700.9	084.4	203.2	100.0000	0280.5	142.6	44.94
089.0	033.4178	0698.6	084.3	203.0	100.0000	0280.0	144.0	44.66
090.0	033.3015	0696.1	084.2	202.9	100.0000	0279.5	145.4	44.38
091.0	032.9538	0694.4	084.0	202.7	100.0000	0279.0	146.9	44.10
092.0	032.6078	0693.9	083.9	202.6	100.0000	0278.5	148.3	43.83
093.0	032.2637	0692.2	083.7	202.4	100.0000	0278.1	149.7	43.56
094.0	031.9215	0689.5	083.5	202.3	100.0000	0277.7	151.2	43.28
095.0	031.5810	0687.8	083.3	202.2	100.0000	0277.3	152.6	43.02
096.0	031.2424	0684.5	083.1	202.2	100.0000	0277.1	154.1	42.75
097.0	030.9056	0681.0	082.9	202.1	100.0000	0276.9	155.5	42.48
098.0	030.5706	0679.0	082.7	202.1	100.0000	0276.6	157.0	42.22
099.0	030.2375	0678.3	082.5	202.0	100.0000	0276.3	158.4	41.96
100.0	029.9062	0679.0	082.5	201.9	100.0000	0276.0	159.9	41.70
101.0	028.9648	0682.9	082.3	201.9	100.0000	0275.9	161.3	41.44
102.0	028.0385	0686.5	082.1	201.9	100.0000	0275.8	162.8	41.18
103.0	027.1273	0688.4	081.8	201.9	100.0000	0275.9	164.2	40.93
104.0	026.2311	0690.5	081.5	201.9	100.0000	0276.1	165.7	40.68
105.0	025.3500	0692.1	081.2	202.0	100.0000	0276.3	167.1	40.44

06-23-2013

Terrain Data: NGDC 30 SEC

FMOver Analysis

KGTM BLH20011127ABJ

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 = 2548.55 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	0885.8	180.6	39.32	
168.0	100.0000	0015.4	031.0	054.1	018.8568	0886.0	180.0	39.41	
169.0	100.0000	0019.9	031.0	054.0	018.8071	0886.2	179.5	39.51	
170.0	100.0000	0024.0	031.0	053.9	018.7552	0886.4	179.1	39.60	
171.0	100.0000	0028.0	031.0	053.8	018.7011	0886.6	178.6	39.69	
172.0	100.0000	0033.0	032.2	054.1	018.9123	0885.8	177.5	39.95	
173.0	100.0000	0039.5	034.9	054.8	019.4348	0883.4	175.8	40.42	
174.0	100.0000	0047.1	037.9	055.6	020.0270	0880.0	173.9	40.94	
175.0	100.0000	0057.1	041.3	056.5	020.7157	0875.2	171.7	41.53	
176.0	100.0000	0066.8	043.7	057.1	021.1903	0871.7	169.9	42.00	
177.0	100.0000	0075.1	045.7	057.6	021.5491	0869.1	168.3	42.42	
178.0	100.0000	0082.6	047.3	057.9	021.8409	0867.2	166.8	42.81	
179.0	100.0000	0090.0	048.9	058.3	022.1085	0865.5	165.3	43.21	
180.0	100.0000	0097.7	050.4	058.6	022.3614	0864.0	163.8	43.61	
181.0	100.0000	0105.6	051.9	058.9	022.5917	0862.7	162.3	44.01	
182.0	100.0000	0113.4	053.2	059.1	022.7838	0861.6	160.9	44.40	
183.0	100.0000	0122.8	054.6	059.4	022.9890	0860.5	159.3	44.81	
184.0	100.0000	0132.8	056.1	059.6	023.1944	0859.4	157.7	45.23	
185.0	100.0000	0141.5	057.3	059.8	023.3387	0858.7	156.2	45.62	
186.0	100.0000	0147.1	058.1	059.8	023.3581	0858.6	155.0	45.93	
187.0	100.0000	0152.6	058.8	059.8	023.3605	0858.6	153.7	46.25	
188.0	100.0000	0161.4	059.9	059.9	023.4426	0858.2	152.2	46.63	
189.0	100.0000	0172.7	061.2	060.1	023.5512	0857.7	150.6	47.06	
190.0	100.0000	0184.3	062.3	060.1	023.6118	0857.4	149.1	47.47	
191.0	100.0000	0194.1	063.2	060.2	023.6201	0857.4	147.7	47.84	
192.0	100.0000	0203.1	064.1	060.1	023.6031	0857.5	146.3	48.21	
193.0	100.0000	0210.4	064.8	060.0	023.5441	0857.8	145.0	48.55	
194.0	100.0000	0218.2	065.5	060.0	023.4744	0858.1	143.7	48.90	
195.0	100.0000	0225.5	066.2	059.8	023.3722	0858.6	142.4	49.24	
196.0	100.0000	0233.1	066.8	059.7	023.2600	0859.1	141.1	49.58	
197.0	100.0000	0240.4	067.5	059.5	023.1252	0859.8	139.8	49.91	
198.0	100.0000	0248.3	068.1	059.4	022.9826	0860.5	138.6	50.24	
199.0	100.0000	0256.3	068.8	059.2	022.8335	0861.3	137.3	50.57	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
200.0	100.0000	0264.2	069.4	059.0	022.6682	0862.2	136.0	50.90
201.0	100.0000	0271.0	070.0	058.7	022.4729	0863.4	134.8	51.21
202.0	100.0000	0276.3	070.5	058.4	022.2371	0864.7	133.7	51.48
203.0	100.0000	0279.9	070.7	058.1	021.9588	0866.4	132.7	51.71
204.0	100.0000	0282.1	070.9	057.7	021.6492	0868.4	131.8	51.90
205.0	100.0000	0283.8	071.1	057.3	021.3238	0870.7	131.0	52.08
206.0	100.0000	0285.5	071.2	056.9	020.9901	0873.2	130.2	52.25
207.0	100.0000	0287.2	071.4	056.4	020.6496	0875.7	129.5	52.41
208.0	100.0000	0288.8	071.5	056.0	020.3018	0878.2	128.8	52.56
209.0	100.0000	0290.3	071.6	055.5	019.9465	0880.5	128.1	52.69
210.0	100.0000	0291.7	071.7	055.0	019.5851	0882.6	127.4	52.81
211.0	100.0000	0293.1	071.8	054.5	019.2187	0884.4	126.8	52.92
212.0	100.0000	0294.5	072.0	054.0	018.8473	0886.0	126.2	53.02
213.0	100.0000	0295.8	072.1	053.5	018.4707	0887.6	125.6	53.10
214.0	100.0000	0296.8	072.1	053.0	018.0887	0889.2	125.1	53.16
215.0	100.0000	0297.6	072.2	052.5	017.7022	0891.2	124.6	53.21
216.0	100.0000	0298.2	072.2	051.9	017.3123	0893.6	124.2	53.25
217.0	100.0000	0298.5	072.3	051.4	016.9202	0896.6	123.8	53.28
218.0	100.0000	0298.7	072.3	050.8	016.5276	0899.8	123.5	53.29
219.0	100.0000	0298.8	072.3	050.2	016.1350	0903.2	123.2	53.30
220.0	100.0000	0298.7	072.3	049.7	015.9732	0906.5	123.0	53.35
221.0	100.0000	0298.4	072.3	049.1	015.9696	0909.7	122.8	53.42
222.0	100.0000	0298.1	072.2	048.5	015.9660	0912.9	122.6	53.49
223.0	100.0000	0298.0	072.2	047.9	015.9624	0916.3	122.5	53.56
224.0	100.0000	0297.9	072.2	047.3	015.9588	0919.8	122.4	53.61
225.0	100.0000	0297.9	072.2	046.7	015.9551	0923.4	122.3	53.66
226.0	100.0000	0297.9	072.2	046.1	015.9515	0926.7	122.3	53.70
227.0	100.0000	0298.0	072.2	045.6	015.9478	0929.4	122.3	53.72
228.0	100.0000	0298.1	072.2	045.0	015.9442	0931.9	122.3	53.73
229.0	100.0000	0298.0	072.2	044.4	015.9405	0934.3	122.4	53.73
230.0	100.0000	0298.0	072.2	043.8	015.9369	0937.2	122.5	53.73
231.0	100.0000	0298.0	072.2	043.2	015.9333	0940.6	122.6	53.72
232.0	100.0000	0298.2	072.2	042.6	015.9297	0944.6	122.8	53.71
233.0	100.0000	0298.4	072.3	042.0	015.9261	0949.0	123.0	53.69
234.0	100.0000	0298.6	072.3	041.5	015.9225	0953.7	123.2	53.66
235.0	100.0000	0298.7	072.3	040.9	015.9190	0958.6	123.5	53.63
236.0	100.0000	0298.7	072.3	040.3	015.9155	0963.5	123.8	53.58
237.0	100.0000	0298.7	072.3	039.8	016.1033	0968.5	124.1	53.58
238.0	100.0000	0298.6	072.3	039.2	016.5407	0973.6	124.5	53.63
239.0	100.0000	0298.7	072.3	038.7	016.9793	0978.6	124.9	53.67
240.0	100.0000	0298.7	072.3	038.1	017.4180	0983.5	125.3	53.70
241.0	100.0000	0298.6	072.3	037.6	017.8547	0988.3	125.8	53.71
242.0	100.0000	0298.5	072.3	037.1	018.2891	0992.9	126.3	53.70
243.0	100.0000	0298.3	072.3	036.5	018.7214	0997.4	126.9	53.69
244.0	100.0000	0298.0	072.2	036.0	019.1500	1001.9	127.4	53.66
245.0	100.0000	0297.8	072.2	035.5	019.5747	1006.5	128.0	53.62
246.0	100.0000	0297.4	072.2	035.1	019.9942	1011.2	128.7	53.57
247.0	100.0000	0296.9	072.1	034.6	020.4081	1015.8	129.4	53.50
248.0	100.0000	0296.6	072.1	034.1	020.8191	1020.3	130.1	53.43
249.0	100.0000	0296.4	072.1	033.7	021.2267	1024.5	130.8	53.35
250.0	100.0000	0296.3	072.1	033.2	021.6300	1028.5	131.5	53.26

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
251.0	100.0000	0296.2	072.1	032.8	022.0267	1032.3	132.3	53.16
252.0	100.0000	0295.9	072.1	032.4	022.4152	1036.0	133.1	53.05
253.0	100.0000	0295.7	072.0	032.0	022.7960	1039.6	133.9	52.92
254.0	100.0000	0295.3	072.0	031.6	023.1676	1043.1	134.7	52.79
255.0	100.0000	0294.9	072.0	031.2	023.5305	1046.6	135.6	52.66
256.0	100.0000	0294.5	072.0	030.8	023.8847	1050.1	136.5	52.51
257.0	100.0000	0294.2	071.9	030.4	024.2321	1053.4	137.4	52.36
258.0	100.0000	0293.9	071.9	030.1	024.5721	1056.5	138.3	52.20
259.0	100.0000	0293.7	071.9	029.7	024.9597	1059.5	139.3	52.04
260.0	100.0000	0293.6	071.9	029.4	025.3570	1062.1	140.2	51.88
261.0	100.0000	0293.4	071.9	029.1	025.7422	1064.5	141.2	51.71
262.0	100.0000	0293.2	071.8	028.8	026.1148	1066.7	142.2	51.54
263.0	100.0000	0293.0	071.8	028.5	026.4759	1068.5	143.2	51.35
264.0	100.0000	0292.8	071.8	028.2	026.8263	1070.1	144.2	51.15
265.0	100.0000	0292.6	071.8	027.9	027.1657	1071.3	145.3	50.94
266.0	100.0000	0292.4	071.8	027.7	027.4930	1072.3	146.3	50.72
267.0	100.0000	0292.3	071.8	027.4	027.8085	1072.9	147.4	50.50
268.0	100.0000	0292.1	071.8	027.2	028.1128	1073.3	148.5	50.28
269.0	100.0000	0291.9	071.7	026.9	028.4037	1073.4	149.6	50.04
270.0	100.0000	0291.6	071.7	026.7	028.6794	1073.4	150.7	49.80
271.0	100.0000	0291.1	071.7	026.5	028.9373	1073.2	151.8	49.55
272.0	100.0000	0290.7	071.6	026.3	029.1830	1072.9	153.0	49.30
273.0	100.0000	0290.2	071.6	026.1	029.4164	1072.6	154.1	49.05
274.0	100.0000	0289.8	071.6	026.0	029.6390	1072.3	155.3	48.79
275.0	100.0000	0289.4	071.5	025.8	029.8510	1071.9	156.4	48.53
276.0	100.0000	0289.0	071.5	025.6	030.0515	1071.6	157.6	48.27
277.0	100.0000	0288.6	071.5	025.5	030.2388	1071.2	158.8	48.00
278.0	100.0000	0288.1	071.4	025.4	030.4086	1070.9	160.0	47.73
279.0	100.0000	0287.5	071.4	025.2	030.5655	1070.6	161.2	47.45
280.0	100.0000	0287.0	071.3	025.1	030.7122	1070.3	162.4	47.17
281.0	100.0000	0286.7	071.3	025.0	030.8553	1070.0	163.6	46.90
282.0	100.0000	0286.7	071.3	024.9	030.9982	1069.7	164.8	46.63
283.0	100.0000	0286.6	071.3	024.8	031.1297	1069.4	166.0	46.35
284.0	100.0000	0286.6	071.3	024.7	031.2486	1069.2	167.2	46.08
285.0	100.0000	0286.5	071.3	024.6	031.3556	1068.9	168.4	45.81
286.0	100.0000	0286.4	071.3	024.6	031.4507	1068.7	169.7	45.54

Exhibit 5B

Section 73.215 Contour Overlap Tabulations and Contour Overlap Map

**KKMV(FM) 291C
vs:
AL2516 290C Centerville, UT (Future KNRS-FM)**

KKMV(FM) 291C Rupert, ID vs ALLO 290C Centerville, UT
Section 73.215 Contour Overlap Study

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

KKMV CH 291 C 73.215 Z

Lat= 42 20 06.0, Lng= 113 36 15.0

60.0 kW 761 M HAAT, 2548.6 M COR

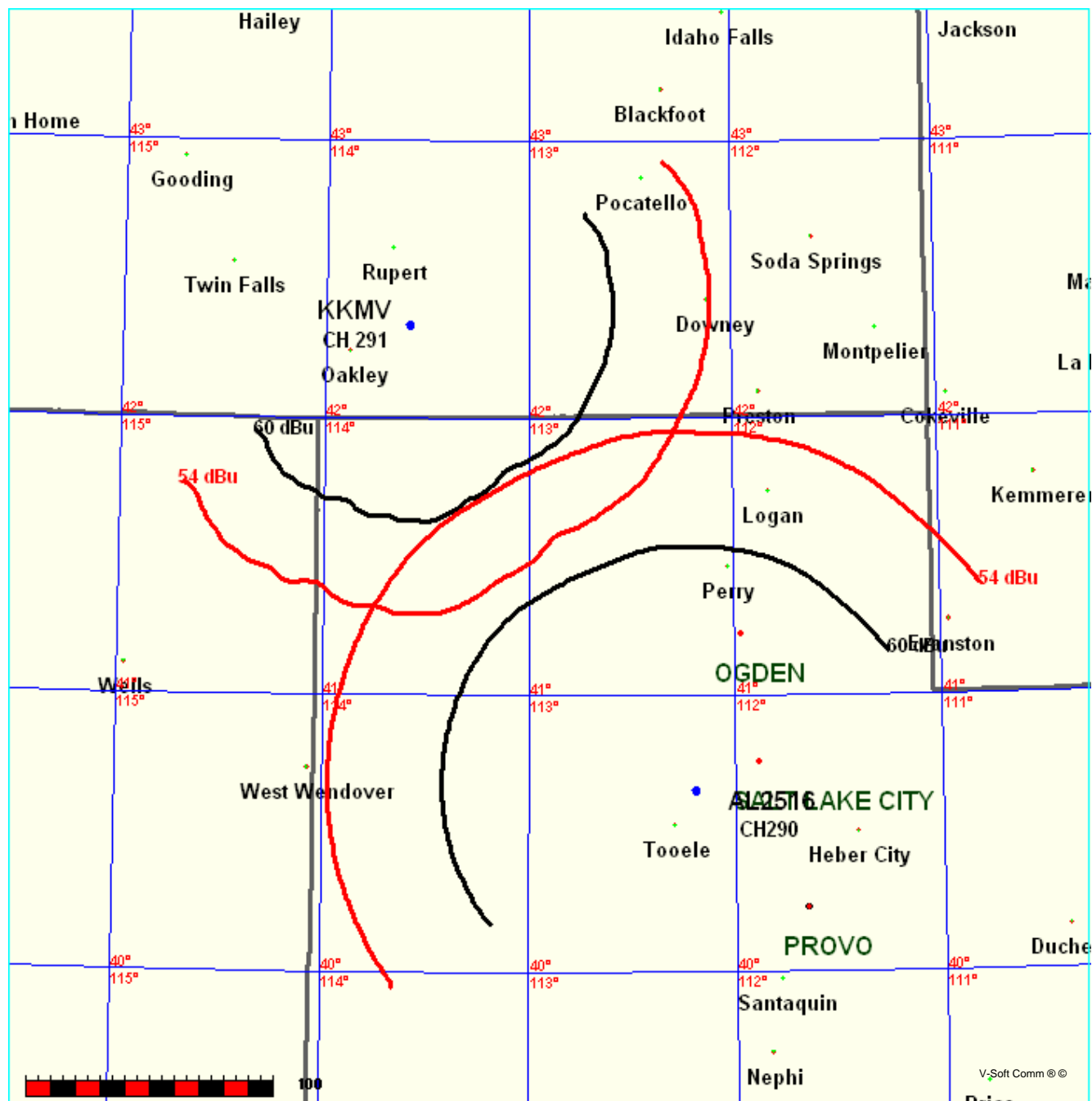
Prot.= 60 dBu, Intef.= 54 dBu

AL2516^ CH 290 C RM11363

Lat= 40 39 34.0, Lng= 112 12 05.0

Max CIs: 100.0 kW 600 M HAAT, 2188.2 M COR

Prot.= 60 dBu, Intef.= 54 dBu



06-23-2013

Terrain Data: NGDC 30 SEC

FMOver Analysis

KKMV

AL2516 RM11363

(^ Max Class Parameters)

Channel = 291C

Channel = 290C

Max ERP = 60 kW

Max ERP = 100 kW

RCAMSL = 2548.55 M

RCAMSL = 2188.2 M

N. Lat. 42 20 06.0

N. Lat. 40 39 34.0

W. Lng. 113 36 15.0

W. Lng. 112 12 05.0

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)
087.0	033.6511	0703.3	084.5	350.4	100.0000	0762.4	193.3	42.80	
088.0	033.5343	0700.9	084.4	350.3	100.0000	0762.3	191.9	43.07	
089.0	033.4178	0698.6	084.3	350.2	100.0000	0762.2	190.4	43.33	
090.0	033.3015	0696.1	084.2	350.1	100.0000	0762.0	189.0	43.58	
091.0	032.9538	0694.4	084.0	350.0	100.0000	0761.8	187.6	43.84	
092.0	032.6078	0693.9	083.9	349.9	100.0000	0761.7	186.2	44.09	
093.0	032.2637	0692.2	083.7	349.7	100.0000	0761.4	184.8	44.34	
094.0	031.9215	0689.5	083.5	349.5	100.0000	0761.2	183.4	44.60	
095.0	031.5810	0687.8	083.3	349.4	100.0000	0760.9	182.1	44.85	
096.0	031.2424	0684.5	083.1	349.2	100.0000	0760.6	180.7	45.11	
097.0	030.9056	0681.0	082.9	348.9	100.0000	0760.3	179.4	45.37	
098.0	030.5706	0679.0	082.7	348.7	100.0000	0759.9	178.1	45.63	
099.0	030.2375	0678.3	082.5	348.5	100.0000	0759.6	176.8	45.91	
100.0	029.9062	0679.0	082.5	348.3	100.0000	0759.2	175.5	46.19	
101.0	028.9648	0682.9	082.3	348.1	100.0000	0758.8	174.3	46.47	
102.0	028.0385	0686.5	082.1	347.8	100.0000	0758.3	173.0	46.75	
103.0	027.1273	0688.4	081.8	347.6	100.0000	0757.7	171.9	47.02	
104.0	026.2311	0690.5	081.5	347.3	100.0000	0757.1	170.7	47.29	
105.0	025.3500	0692.1	081.2	347.0	100.0000	0756.4	169.6	47.56	
106.0	024.4839	0693.2	080.9	346.6	100.0000	0755.6	168.5	47.81	
107.0	023.6329	0696.5	080.6	346.3	100.0000	0754.8	167.4	48.07	
108.0	022.7969	0701.1	080.4	346.0	100.0000	0753.9	166.3	48.33	
109.0	021.9760	0706.4	080.2	345.7	100.0000	0753.1	165.3	48.59	
110.0	021.1702	0713.8	080.0	345.4	100.0000	0752.2	164.2	48.84	
111.0	020.5054	0721.4	080.0	345.0	100.0000	0751.3	163.1	49.11	
112.0	019.8513	0728.7	079.9	344.7	100.0000	0750.4	162.1	49.36	
113.0	019.2078	0735.5	079.7	344.4	100.0000	0749.4	161.0	49.60	
114.0	018.5749	0741.8	079.6	344.0	100.0000	0748.4	160.1	49.83	
115.0	017.9525	0749.2	079.5	343.7	100.0000	0747.4	159.1	50.06	
116.0	017.3408	0758.1	079.4	343.3	100.0000	0746.4	158.1	50.29	
117.0	016.7397	0767.9	079.3	342.9	100.0000	0745.5	157.2	50.52	
118.0	016.1492	0777.5	079.3	342.6	100.0000	0744.5	156.3	50.74	
119.0	015.5693	0785.6	079.1	342.2	100.0000	0743.6	155.4	50.94	
120.0	015.0000	0792.2	078.9	341.7	100.0000	0742.6	154.6	51.12	
121.0	014.7015	0797.5	078.9	341.3	100.0000	0741.8	153.8	51.33	
122.0	014.4060	0801.5	078.8	340.9	100.0000	0741.1	153.0	51.52	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
123.0	014.1135	0804.0	078.6	340.5	100.0000	0740.6	152.3	51.69
124.0	013.8240	0804.1	078.4	340.0	100.0000	0740.2	151.6	51.85
125.0	013.5375	0802.0	078.1	339.5	100.0000	0740.0	151.1	51.98
126.0	013.2540	0797.8	077.7	339.0	100.0000	0740.0	150.6	52.10
127.0	012.9735	0792.0	077.3	338.5	100.0000	0740.1	150.3	52.19
128.0	012.6960	0785.1	076.9	338.0	100.0000	0740.4	150.0	52.27
129.0	012.4215	0777.1	076.4	337.5	100.0000	0740.9	149.8	52.33
130.0	012.1500	0768.2	075.9	336.9	100.0000	0741.5	149.6	52.37
131.0	012.1500	0759.1	075.6	336.4	100.0000	0742.1	149.3	52.46
132.0	012.1500	0750.5	075.3	335.9	100.0000	0742.8	149.0	52.54
133.0	012.1500	0742.1	075.0	335.4	100.0000	0743.6	148.8	52.61
134.0	012.1500	0733.2	074.7	334.9	100.0000	0744.5	148.6	52.67
135.0	012.1500	0723.5	074.4	334.4	100.0000	0745.5	148.5	52.71
136.0	012.1500	0713.0	074.0	333.9	100.0000	0746.5	148.4	52.74
137.0	012.1500	0702.2	073.6	333.4	100.0000	0747.6	148.4	52.75
138.0	012.1500	0691.0	073.2	332.8	100.0000	0748.8	148.5	52.75
139.0	012.1500	0678.2	072.7	332.3	100.0000	0750.0	148.6	52.72
140.0	012.1500	0663.9	072.2	331.8	100.0000	0751.2	148.9	52.67
141.0	012.1500	0650.0	071.7	331.3	100.0000	0752.5	149.2	52.62
142.0	012.1500	0638.7	071.3	330.8	100.0000	0753.8	149.4	52.57
143.0	012.1500	0630.5	071.0	330.3	100.0000	0755.1	149.5	52.55
144.0	012.1500	0626.7	070.8	329.9	100.0000	0756.5	149.5	52.56
145.0	012.1500	0628.1	070.9	329.4	100.0000	0758.1	149.4	52.62
146.0	012.1500	0634.1	071.1	328.9	100.0000	0759.6	149.1	52.71
147.0	012.1500	0643.4	071.4	328.4	100.0000	0761.3	148.7	52.83
148.0	012.1500	0655.4	071.9	328.0	100.0000	0763.1	148.2	52.97
149.0	012.1500	0667.9	072.4	327.5	100.0000	0765.0	147.8	53.10
150.0	012.1500	0679.2	072.8	327.0	100.0000	0767.0	147.5	53.21
151.0	012.1500	0688.4	073.1	326.5	100.0000	0769.0	147.2	53.30
152.0	012.1500	0696.6	073.4	326.0	100.0000	0771.2	147.1	53.37
153.0	012.1500	0702.6	073.6	325.5	100.0000	0773.5	147.0	53.40
154.0	012.1500	0706.1	073.8	325.0	100.0000	0775.9	147.1	53.41
155.0	012.1500	0708.6	073.8	324.5	100.0000	0778.5	147.2	53.40
156.0	012.1500	0711.5	073.9	324.0	100.0000	0781.3	147.4	53.39
157.0	012.1500	0714.3	074.0	323.5	100.0000	0784.3	147.6	53.37
158.0	012.1500	0716.8	074.1	323.0	100.0000	0787.5	147.8	53.34
159.0	012.1500	0719.4	074.2	322.5	100.0000	0790.7	148.1	53.30
160.0	012.1500	0721.9	074.3	322.0	100.0000	0794.1	148.4	53.26
161.0	012.8011	0723.2	074.9	321.5	100.0000	0798.1	148.3	53.34
162.0	013.4692	0723.4	075.5	320.9	100.0000	0802.1	148.2	53.40
163.0	014.1543	0722.9	076.0	320.4	100.0000	0806.2	148.2	53.43
164.0	014.8563	0721.1	076.5	319.8	100.0000	0810.3	148.4	53.45
165.0	015.5754	0717.2	076.9	319.3	100.0000	0814.3	148.6	53.43
166.0	016.3115	0711.9	077.2	318.8	100.0000	0818.1	148.9	53.38
167.0	017.0645	0707.0	077.5	318.3	100.0000	0821.9	149.3	53.32
168.0	017.8346	0703.6	077.8	317.8	100.0000	0825.6	149.7	53.26
169.0	018.6216	0699.9	078.2	317.3	100.0000	0829.1	150.1	53.19
170.0	019.4257	0695.7	078.5	316.8	100.0000	0832.5	150.6	53.10
171.0	020.2746	0690.5	078.8	316.3	100.0000	0835.7	151.1	52.99
172.0	021.1417	0682.8	078.9	315.8	100.0000	0838.6	151.8	52.85
173.0	022.0269	0672.1	079.0	315.4	100.0000	0841.2	152.6	52.67

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
174.0	022.9303	0658.8	078.9	315.0	100.0000	0843.5	153.5	52.46
175.0	023.8518	0642.4	078.7	314.7	100.0000	0845.4	154.6	52.22
176.0	024.7915	0626.0	078.5	314.4	100.0000	0847.2	155.6	51.97
177.0	025.7494	0609.3	078.3	314.1	100.0000	0848.8	156.7	51.71
178.0	026.7254	0596.2	078.1	313.8	100.0000	0850.5	157.8	51.47
179.0	027.7195	0585.9	078.1	313.4	100.0000	0852.1	158.8	51.23
180.0	028.7318	0576.2	078.0	313.1	100.0000	0853.7	159.8	50.99
181.0	030.1353	0566.4	078.0	312.8	100.0000	0855.2	160.8	50.76
182.0	031.5723	0553.5	077.9	312.5	100.0000	0856.4	162.0	50.50
183.0	033.0427	0538.6	077.6	312.3	100.0000	0857.2	163.2	50.20
184.0	034.5466	0522.3	077.1	312.2	100.0000	0857.9	164.6	49.87
185.0	036.0840	0508.7	076.7	312.0	100.0000	0858.6	165.9	49.57
186.0	037.6548	0498.1	076.5	311.8	100.0000	0859.5	167.1	49.29
187.0	039.2592	0493.5	076.7	311.5	100.0000	0860.6	168.1	49.06
188.0	040.8969	0492.7	077.1	311.1	100.0000	0861.9	169.0	48.85
189.0	042.5682	0490.7	077.4	310.8	100.0000	0863.1	170.0	48.64
190.0	044.2729	0486.4	077.5	310.5	100.0000	0864.0	171.1	48.39
191.0	045.7382	0480.9	077.5	310.3	100.0000	0864.7	172.2	48.13
192.0	047.2274	0474.0	077.4	310.2	100.0000	0865.2	173.5	47.85
193.0	048.7405	0464.0	077.0	310.1	100.0000	0865.4	174.9	47.54
194.0	050.2774	0453.7	076.5	310.0	100.0000	0865.6	176.3	47.24
195.0	051.8382	0444.1	076.1	310.0	100.0000	0865.8	177.6	46.94
196.0	053.4229	0432.2	075.6	310.0	100.0000	0865.8	179.1	46.64
197.0	055.0314	0418.2	074.8	310.0	100.0000	0865.6	180.5	46.33
198.0	056.6637	0406.2	074.3	310.0	100.0000	0865.6	182.0	46.04
199.0	058.3199	0400.1	074.2	309.9	100.0000	0865.9	183.2	45.79
200.0	060.0000	0398.5	074.3	309.7	100.0000	0866.4	184.4	45.57
201.0	060.0000	0401.2	074.5	309.6	100.0000	0866.9	185.5	45.35
202.0	060.0000	0408.0	075.0	309.3	100.0000	0867.7	186.6	45.14
203.0	060.0000	0418.5	075.8	309.0	100.0000	0868.6	187.7	44.95
204.0	060.0000	0427.6	076.5	308.7	100.0000	0869.3	188.8	44.75
205.0	060.0000	0432.5	076.8	308.5	100.0000	0869.8	190.0	44.52
206.0	060.0000	0432.4	076.8	308.4	100.0000	0870.0	191.3	44.29

06-23-2013

Terrain Data: NGDC 30 SEC

FMOver Analysis

AL2516 RM11363

KKMV

(^ Max Class Parameters)

Channel = 290C

Channel = 291C

Max ERP = 100 kW

Max ERP = 60 kW

RCAMSL = 2188.2 M

RCAMSL = 2548.55 M

N. Lat. 40 39 34.0

N. Lat. 42 20 06.0

W. Lng. 112 12 05.0

W. Lng. 113 36 15.0

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)
268.0	100.0000	0874.3	102.3	175.5	024.2899	0634.5	190.2	35.71	
269.0	100.0000	0875.4	102.3	175.4	024.2677	0634.9	188.5	36.04	
270.0	100.0000	0876.5	102.4	175.4	024.2465	0635.3	186.7	36.36	
271.0	100.0000	0877.5	102.4	175.4	024.2152	0635.8	184.9	36.69	
272.0	100.0000	0878.5	102.5	175.3	024.1738	0636.6	183.1	37.02	
273.0	100.0000	0879.5	102.5	175.3	024.1221	0637.5	181.3	37.37	
274.0	100.0000	0880.4	102.5	175.2	024.0596	0638.6	179.6	37.72	
275.0	100.0000	0881.3	102.5	175.1	023.9865	0639.9	177.8	38.09	
276.0	100.0000	0882.2	102.6	175.1	023.9018	0641.5	176.0	38.48	
277.0	100.0000	0883.0	102.6	175.0	023.8056	0643.3	174.3	38.89	
278.0	100.0000	0883.6	102.6	174.8	023.6967	0645.3	172.5	39.30	
279.0	100.0000	0884.1	102.6	174.7	023.5743	0647.6	170.8	39.73	
280.0	100.0000	0884.5	102.6	174.6	023.4388	0650.1	169.0	40.16	
281.0	100.0000	0884.7	102.7	174.4	023.2903	0652.8	167.3	40.60	
282.0	100.0000	0884.9	102.7	174.2	023.1294	0655.5	165.6	41.03	
283.0	100.0000	0885.1	102.7	174.0	022.9554	0658.4	163.9	41.46	
284.0	100.0000	0885.2	102.7	173.8	022.7688	0661.5	162.2	41.89	
285.0	100.0000	0885.4	102.7	173.6	022.5694	0664.5	160.5	42.30	
286.0	100.0000	0885.5	102.7	173.4	022.3574	0667.6	158.8	42.71	
287.0	100.0000	0885.7	102.7	173.1	022.1325	0670.7	157.2	43.11	
288.0	100.0000	0885.9	102.7	172.9	021.8943	0673.8	155.6	43.51	
289.0	100.0000	0886.0	102.7	172.6	021.6427	0677.1	153.9	43.90	
290.0	100.0000	0886.0	102.7	172.3	021.3768	0680.3	152.3	44.28	
291.0	100.0000	0885.9	102.7	171.9	021.0975	0683.3	150.8	44.66	
292.0	100.0000	0885.9	102.7	171.6	020.8045	0686.1	149.2	45.02	
293.0	100.0000	0885.7	102.7	171.3	020.4978	0688.8	147.7	45.38	
294.0	100.0000	0885.5	102.7	170.9	020.1774	0691.2	146.2	45.72	
295.0	100.0000	0885.2	102.7	170.5	019.8436	0693.4	144.7	46.06	
296.0	100.0000	0884.9	102.7	170.1	019.4965	0695.3	143.2	46.38	
297.0	100.0000	0884.4	102.6	169.7	019.1452	0697.1	141.8	46.70	
298.0	100.0000	0883.8	102.6	169.2	018.7837	0699.0	140.4	47.00	
299.0	100.0000	0883.2	102.6	168.7	018.4098	0701.0	139.0	47.30	
300.0	100.0000	0882.4	102.6	168.2	018.0235	0702.8	137.7	47.59	

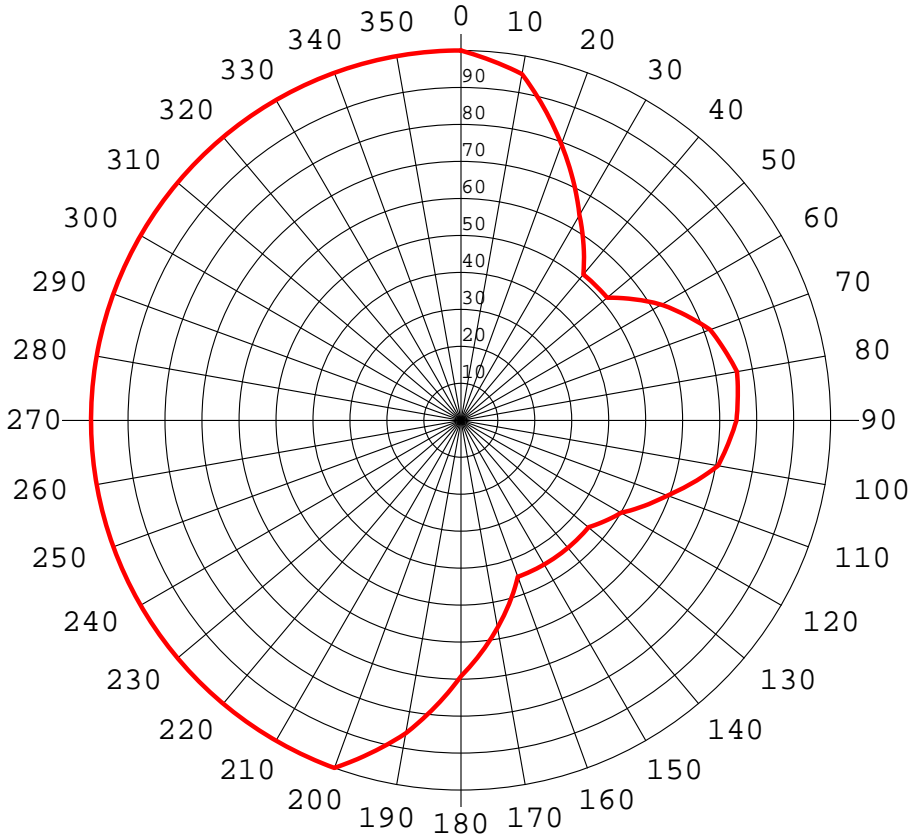
Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
301.0	100.0000	0881.5	102.6	167.7	017.6256	0704.4	136.4	47.86
302.0	100.0000	0880.4	102.5	167.2	017.2166	0706.3	135.1	48.12
303.0	100.0000	0879.3	102.5	166.6	016.7971	0708.6	133.9	48.37
304.0	100.0000	0878.0	102.4	166.1	016.3672	0711.5	132.7	48.62
305.0	100.0000	0876.5	102.4	165.5	015.9281	0714.7	131.5	48.85
306.0	100.0000	0874.9	102.3	164.9	015.4800	0717.8	130.4	49.07
307.0	100.0000	0873.0	102.3	164.2	015.0235	0720.4	129.4	49.26
308.0	100.0000	0870.9	102.2	163.6	014.5596	0722.1	128.4	49.42
309.0	100.0000	0868.5	102.1	162.9	014.0887	0723.0	127.4	49.55
310.0	100.0000	0865.6	102.0	162.2	013.6116	0723.3	126.5	49.65
311.0	100.0000	0862.4	101.9	161.5	013.1296	0723.4	125.7	49.73
312.0	100.0000	0858.5	101.8	160.8	012.6436	0723.0	124.9	49.77
313.0	100.0000	0854.2	101.6	160.0	012.1547	0721.9	124.2	49.78
314.0	100.0000	0849.2	101.4	159.2	012.1500	0720.0	123.6	49.92
315.0	100.0000	0843.7	101.2	158.5	012.1500	0717.9	123.0	50.05
316.0	100.0000	0837.6	101.0	157.7	012.1500	0715.9	122.6	50.16
317.0	100.0000	0831.0	100.8	156.8	012.1500	0713.8	122.2	50.24
318.0	100.0000	0824.0	100.5	156.0	012.1500	0711.5	121.8	50.30
319.0	100.0000	0816.6	100.2	155.2	012.1500	0709.1	121.6	50.34
320.0	100.0000	0809.1	099.9	154.4	012.1500	0707.0	121.4	50.37
321.0	100.0000	0801.5	099.6	153.5	012.1500	0704.7	121.3	50.37
322.0	100.0000	0794.3	099.4	152.7	012.1500	0701.1	121.2	50.35
323.0	100.0000	0787.4	099.1	151.9	012.1500	0695.6	121.1	50.29
324.0	100.0000	0781.2	098.8	151.0	012.1500	0688.8	121.1	50.20
325.0	100.0000	0775.7	098.6	150.2	012.1500	0681.4	121.2	50.10
326.0	100.0000	0771.1	098.5	149.4	012.1500	0672.6	121.2	49.98
327.0	100.0000	0766.9	098.3	148.6	012.1500	0662.8	121.3	49.82
328.0	100.0000	0763.0	098.1	147.8	012.1500	0652.5	121.4	49.65
329.0	100.0000	0759.4	098.0	147.0	012.1500	0643.0	121.6	49.48
330.0	100.0000	0756.1	097.9	146.2	012.1500	0635.3	121.8	49.32
331.0	100.0000	0753.3	097.8	145.4	012.1500	0629.8	122.0	49.18
332.0	100.0000	0750.8	097.7	144.6	012.1500	0626.8	122.3	49.06
333.0	100.0000	0748.4	097.6	143.8	012.1500	0627.1	122.6	48.97
334.0	100.0000	0746.2	097.5	143.0	012.1500	0630.5	123.0	48.91
335.0	100.0000	0744.4	097.4	142.2	012.1500	0636.5	123.4	48.87
336.0	100.0000	0742.7	097.3	141.5	012.1500	0644.4	123.9	48.85
337.0	100.0000	0741.4	097.3	140.7	012.1500	0653.8	124.4	48.84
338.0	100.0000	0740.4	097.2	140.0	012.1500	0664.3	124.9	48.83
339.0	100.0000	0740.0	097.2	139.2	012.1500	0675.0	125.5	48.81
340.0	100.0000	0740.1	097.2	138.5	012.1500	0684.9	126.0	48.78
341.0	100.0000	0741.3	097.3	137.8	012.1500	0693.6	126.6	48.74
342.0	100.0000	0743.2	097.4	137.1	012.1500	0701.5	127.2	48.67
343.0	100.0000	0745.6	097.4	136.3	012.1500	0709.2	127.9	48.60
344.0	100.0000	0748.3	097.6	135.6	012.1500	0716.8	128.6	48.51
345.0	100.0000	0751.2	097.7	135.0	012.1500	0724.0	129.3	48.41
346.0	100.0000	0754.0	097.8	134.3	012.1500	0730.7	130.1	48.28
347.0	100.0000	0756.5	097.9	133.6	012.1500	0736.8	130.9	48.14
348.0	100.0000	0758.6	098.0	133.0	012.1500	0742.4	131.8	47.97
349.0	100.0000	0760.3	098.0	132.3	012.1500	0747.6	132.7	47.78
350.0	100.0000	0761.9	098.1	131.7	012.1500	0752.8	133.7	47.58
351.0	100.0000	0762.9	098.1	131.1	012.1500	0757.9	134.7	47.36

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
352.0	100.0000	0763.0	098.1	130.6	012.1500	0762.9	135.8	47.12
353.0	100.0000	0761.3	098.1	130.1	012.1500	0767.7	137.0	46.85
354.0	100.0000	0757.9	097.9	129.6	012.2652	0772.1	138.3	46.60
355.0	100.0000	0754.3	097.8	129.1	012.3918	0776.2	139.6	46.34
356.0	100.0000	0751.7	097.7	128.7	012.5171	0780.0	140.9	46.08
357.0	100.0000	0748.9	097.6	128.2	012.6376	0783.5	142.2	45.80
358.0	100.0000	0746.0	097.5	127.8	012.7532	0786.6	143.6	45.51
359.0	100.0000	0743.0	097.3	127.4	012.8641	0789.5	145.0	45.21
000.0	100.0000	0739.8	097.2	127.0	012.9702	0792.0	146.4	44.89
001.0	100.0000	0736.5	097.1	126.7	013.0712	0794.2	147.8	44.57
002.0	100.0000	0736.0	097.1	126.3	013.1773	0796.4	149.2	44.27
003.0	100.0000	0739.1	097.2	125.9	013.2925	0798.5	150.6	43.99
004.0	100.0000	0742.3	097.3	125.5	013.4037	0800.2	151.9	43.69
005.0	100.0000	0745.2	097.4	125.1	013.5103	0801.7	153.3	43.39
006.0	100.0000	0747.8	097.5	124.7	013.6115	0802.7	154.8	43.08
007.0	100.0000	0750.3	097.6	124.4	013.7082	0803.5	156.2	42.75
008.0	100.0000	0751.3	097.7	124.1	013.7957	0804.0	157.7	42.41
009.0	100.0000	0751.0	097.7	123.8	013.8744	0804.3	159.3	42.06
010.0	100.0000	0750.9	097.7	123.6	013.9497	0804.4	160.8	41.70
011.0	100.0000	0751.5	097.7	123.3	014.0237	0804.3	162.4	41.34
012.0	100.0000	0752.6	097.7	123.1	014.0957	0804.0	163.9	40.97
013.0	100.0000	0754.0	097.8	122.8	014.1647	0803.7	165.5	40.59
014.0	100.0000	0755.8	097.9	122.6	014.2313	0803.2	167.1	40.22
015.0	100.0000	0757.5	097.9	122.4	014.2941	0802.7	168.7	39.84
016.0	100.0000	0758.8	098.0	122.2	014.3512	0802.1	170.3	39.46
017.0	100.0000	0759.5	098.0	122.0	014.4026	0801.6	172.0	39.08
018.0	100.0000	0759.8	098.0	121.9	014.4488	0801.0	173.6	38.71
019.0	100.0000	0759.7	098.0	121.7	014.4902	0800.5	175.3	38.33
020.0	100.0000	0759.2	098.0	121.6	014.5265	0800.0	176.9	37.97
021.0	100.0000	0758.2	097.9	121.5	014.5577	0799.6	178.6	37.62
022.0	100.0000	0756.5	097.9	121.4	014.5830	0799.3	180.3	37.27
023.0	100.0000	0754.1	097.8	121.3	014.6026	0799.0	182.0	36.93
024.0	100.0000	0751.3	097.7	121.3	014.6177	0798.8	183.7	36.60
025.0	100.0000	0748.7	097.6	121.2	014.6303	0798.6	185.5	36.28
026.0	100.0000	0746.4	097.5	121.2	014.6410	0798.4	187.2	35.97
027.0	100.0000	0744.4	097.4	121.2	014.6503	0798.3	188.9	35.66

Exhibit 7

Proposed Directional Pattern Azimuth Tabulations

KKMV(FM) Antenna Azimuth Pattern



Azi	Rel	dBk	kW	dB	Azi	Rel	dBk	kW	dB
0	1.000	17.78	60.0	0.00	180	0.692	14.58	28.7	-3.20
10	0.951	17.35	54.3	-0.44	190	0.859	16.46	44.3	-1.32
20	0.794	15.78	37.8	-2.00	200	1.000	17.78	60.0	0.00
30	0.641	13.92	24.7	-3.86	210	1.000	17.78	60.0	0.00
40	0.515	12.02	15.9	-5.76	220	1.000	17.78	60.0	0.00
50	0.516	12.03	16.0	-5.75	230	1.000	17.78	60.0	0.00
60	0.626	13.71	23.5	-4.07	240	1.000	17.78	60.0	0.00
70	0.717	14.89	30.8	-2.89	250	1.000	17.78	60.0	0.00
80	0.758	15.37	34.5	-2.41	260	1.000	17.78	60.0	0.00
90	0.745	15.22	33.3	-2.56	270	1.000	17.78	60.0	0.00
100	0.706	14.76	29.9	-3.02	280	1.000	17.78	60.0	0.00
110	0.594	13.26	21.2	-4.52	290	1.000	17.78	60.0	0.00
120	0.500	11.76	15.0	-6.02	300	1.000	17.78	60.0	0.00
130	0.450	10.85	12.2	-6.94	310	1.000	17.78	60.0	0.00
140	0.450	10.85	12.2	-6.94	320	1.000	17.78	60.0	0.00
150	0.450	10.85	12.2	-6.94	330	1.000	17.78	60.0	0.00
160	0.450	10.85	12.2	-6.94	340	1.000	17.78	60.0	0.00
170	0.569	12.88	19.4	-4.90	350	1.000	17.78	60.0	0.00

Rotation Angle = 0