

Exhibit #15, Allocation Analysis
KSBX, Santa Barbara
Request for Waiver

The tabular channel-study found on page #4 of this exhibit shows that on the direct line between KSBX and stations having a frequency and distance relationship, no contour overlap occurs, with the exception of KMRO (LI) and KMRO (AP) to be discussed below. Page 6 of this attachment is a contour-to-contour map of the close relationship with station KCRW, Santa Monica. This is followed by pages 7-11, a distance to contour analysis in the FCC's FMOVER format. Page 12 is a map of the contour-to-contour relationship with KHFR, Santa Maria. Pages 13-17 are a related FMOVER printout. The maps and printouts show that the KSBX proposal fully protects these stations from contour overlap and that these stations do not have contour overlap with KSBX as proposed.

With regard to the contour overlap caused KMRO, the map on page 18 shows the location of the KSBX's transmitter in relationship to the 2nd adjacent KMRO 60 dBu protected contour. Since KMRO has filed an application for a change in transmitter location, both the existing and the proposed facilities are accounted for on the map.

The map on page 19 of this exhibit shows the signal values of KMRO (AP) and KMRO (LI) at the KSBX transmitter site in a close-up scale. D/U calculations were based on the signal level of KMRO at the KSBX transmitter site. These calculations are as follows:

KMRO (AP) signal at KSBX = 67.7 dBu, 100 dBu = 67.7 dBu + 40 = 107.7 dBu
KMRO (LI) signal at KSBX = 68.3 dBu, 100 dBu = 68.3 dBu + 40 = 108.3 dBu

Based on the D/U calculations, KSBX will cause interference to an area of 0.71 square kilometer within the KMRO (AP) 60 dBu protected coverage and to area of 0.62 square kilometer within the KMRO (LI) protected coverage. As shown in the table below, this amounts to 0.014% and 0.012% of KMRO's pending application and its licensed facility's 60 dBu coverage area. There are no people living within the calculated interference contour as shown in the table below.

Station	D/U Calculated interference area in sq km	Population in interference area	KMRO 60 dBu land area in sq km	% of KMRO 60 dBu land area
KMRO (AP)	0.71 sq km	0	4,972.9	0.014%
KMRO (LI)	0.62	0	5,166.2	0.012%

When contour overlap is considered the 100 dBu signal contour of KSBX contains an area of 4.14 square kilometers which is 0.083% of KMRO (AP)'s 60 dBu land area and 0.08% of KMRO (LI)'s land area. The population within the contour overlap is 65.¹ Page 20 is a distance-to-contour table showing the distance to the proposed KSBX 100 dBu contour along 36 radials.

Station	100 dBu contour overlap area in sq km	Population in interference area	KMRO 60 dBu land area in sq km	% of KMRO 60 dBu land area
KMRO (AP)	4.14 sq km	65	4,972.9	0.083%
KMRO (LI)	4.14 sq km	65	5,166.2	0.08%

If the requested waiver is granted, KSBX can be moved as a minor change to channel 210. In addition to eliminating the co-channel interference it experiences from KPBS-FM, it can increase its ERP by 8.45 dB from 0.05 kW, with a population of 179,140, to 0.35 kW with a population of 198,862. Its 60 dBu land area would increase by 88.3%.

Station	60 dBu Land Coverage	% Land Increase	60 dBu population	% population increase
KSBX (LI)	215.4 sq km		179,140	
KSBX (Proposed)	405.5 sq km	88.3 %	198,862	11.0%

If the waiver, as requested, is granted to KSBX, the station would move to channel 210 and it will no longer be co-channel with KLFH, Ojai on channel 208. This will allow KLFH, to increase its ERP by 10.1 dB, from 0.97 kW to 1 kW and by doing so reduce or eliminate the co-channel interference it experiences from KPBS-FM. The KLFH application submitted, simultaneously with the KSBX application, is contingent on the grant of waiver and channel change of KSBX. Consequently, we provide the coverage improvement for KLFH in the following table as additional evidence of the total improvement the KSBX waiver will bring about. It should be noted that if the KSBX waiver is granted, no additional waivers will be needed for KLFH to increase its ERP as proposed.

Station	60 dBu Land Coverage	% Land Increase	60 dBu population	% population increase
KLFH (LI)	982.6 sq km		348,734	
KLFH - Proposed	2,208.9 sq km	124.8%	513,859	47.3%

¹ See Page 18 and 19, this exhibit for maps.

To conclude, the requested waiver brings about significant facilities improvements for both KSBX and KLFH and, at the same time, it provides, perhaps, the only answer to the severe co-channel interference both stations receive from KPBS-FM's newly increased signal that travels to the stations service areas by low-attenuation paths that are almost completely over the Pacific Ocean.² The evidence, as provided here, clearly shows that the benefit to the public that this proposal provides of substantially increasing noncommercial educational radio service while ultimately reducing co-channel interference, heavily outweighs the potential for 2nd adjacent interference in a very small area.

Doug Vernier, President and Senior Engineer
Doug Vernier, Telecommunications Consultants

² See Exhibit #1 for maps of the permanent locations of interference complaints from KSBX and KLFH listeners.

Contour to Contour Channel -Study

KSBX, Santa Barbara

REFERENCE 34 27 57 N. 119 40 37 W. CH# 210A - 89.9 MHz, Pwr= 0.35 kW, HAAT=271.0 M, COR= 661 M
Average Protected F(50-50)= 23.39 km
Ave. F(50-10) 40 dBu= 69.7 54 dBu= 35.1 80 dBu= 7.2 100 dBu= 1.3
DISPLAY DATES DATA 03-24-06 SEARCH 03-24-06

CH CITY	CALL	TYPE STATE	AZI. <--	DIST FILE #	LAT. LNG.	Pwr(kW) HAAT(M)	COR(M) INT(km)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
210B Santa Monica	KCRW	LIC CN CA	107.7 288.5	124.43 BLED19810325AF	34 07 08 118 23 30	6.900 235	537 106.9	42.5 Santa Monica Community Col	0.52	24.85
209B Santa Maria	KHFR	LIC DVX CA	316.9 136.6	67.85 BLED20050615ACJ	34 54 37 120 11 08	0.348 494	1005 48.7	31.2 Family Stations, Inc.	9.19	22.79
212B Camarillo	KMRO	LIC C CA	97.3 277.6	45.49 BLED20030919ABW	34 24 47 119 11 10	7.100 611	868 5.2	64.5 The Association For Commun	28.77	-19.54*<--**
212B Camarillo	KMRO. A	APP CX CA	97.4 277.7	46.58 BPED20060208AMD	34 24 40 119 10 28	10.700 512	784 5.9	63.7 The Association For Commun	29.01	-17.67*<--**
210B Kettleman City	KWDS. C	CP DVX CA	351.2 171.1	171.71 BMPED20050202AFK	35 59 42 119 58 06	49.947 57	205 122.3	35.7 Horizon Christian Fellowsh	41.73	110.13
213B Santa Maria	KRVC. C	CP DCX CA	293.8 113.3	76.88 BMPED20051005ABF	34 44 30 120 26 45	1.579 84	409 1.8	19.0 People Of Action	67.64	56.67
208A Ojai	890526	VAC N CA	92.4 272.6	40.03	34 27 00 119 14 30	6.000 -511	0 1.6	15.8	33.17	23.66
208A Ojai	KLFH	LIC DCX CA	97.4 277.7	45.35 BLED20030305AAI	34 24 45 119 11 16	0.003 628	885 0.1	9.4 Shepherd Communications	33.56	35.40
264B Ventura	KHAY	LIC CN CA	112.3 292.5	34.23 BLH19960322KA	34 20 55 119 19 57	39.000 381	653 81.4	82.8 Cumulus Licensing Lic	15.0R	19.2M
211B San Luis Obispo	KCBX	LIC CN CA	318.4 137.8	133.53 BLED19890317KD	35 21 37 120 39 17	5.300 137	766 48.1	31.6 Kcbx, Inc.	76.11	88.92
211B Bakersfield	KTOX	LIC CN CA	41.7 222.4	147.80 BLED19961031KA	35 27 11 118 35 25	0.570 1337	2326 82.8	55.4 Radio Bilingue, Inc.	57.26	81.36
208B Shafter	KGLV	CP DVN CA	7.1 187.2	125.73 BNPED20000518ACI	35 35 25 119 30 17	11.986 144	227 3.9	39.0 Educational Media Foundati	114.09	85.37
207B San Luis Obispo	KLFFFM	CP CN CA	318.4 137.8	133.53 BPED19910219MJ	35 21 37 120 39 17	4.400 170	799 3.1	33.7 Logos Broadcasting Corpora	121.11	98.55
207B San Luis Obispo	KLFFFM	APP CN CA	318.4 137.8	133.58 BMPED19940706IA	35 21 37 120 39 20	5.000 155	777 3.1	33.1 Logos Broadcasting Corpora	121.14	99.14
06+2C San Louis Obispo	KSBY	LI N CA	318.4 137.8	133.55 BMLCT19860228KG	35 21 37 120 39 18	100.000 258	885 6.0	99.7 Ksby Communications, Inc.	196.0R	-62.5M•
06Z2 Tijuana	XETV«	LI CN BN	131.1 312.5	327.88 BPFS	32 30 02 117 02 31	99.250 374	409 13.6	109.0	196.0R	131.9M
06-T San Fernando Valley	KSFV-L	CP N CA	100.3 281.2	151.27 BPTVL20021018AAZ	34 12 46 118 03 42	0.499 773	1680 9.5	39.4 Venture Technologies Group	196.0R	-44.7M•

ERP and HAAT are on direct line to and from reference station.

• affixed to TV6 Margin= no direct-line contour overlap.

***affixed to 'IN' or 'Out' values = site inside protected contour.

"«" = station meets FCC minimum distance spacing for its class.

** Contour overlap waiver requested

HOW TO READ THE FM COMPUTER PRINT-OUT (NCE)

The computer printout should be self-explanatory for the most part. The parameters of the station being checked, (reference station) are printed in the heading. The 60 dBu protected contour is predicted from the Commission's F(50-50) table, while the 40, 54, 80 and 100 dBu contours are interference contours derived from the Commission's F(50-10) table. Contour distances are in kilometers and are predicted using spline interpolation from data points identical to those published in Report No. RS 76-01 by Gary C. Kalagian. Critical contour distances are determined 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 sum of the reference station's 60 dBu protected contour and the data file station's interference contour subtracted from the distance between the stations. (All distances are derived by the method detailed in Sec. 73.208 of the Rules and Regulations as amended in Docket 80-90.) Therefore, the column is a measure of incoming interference. Negative distances in this column indicate the presence of interference. Listed antenna heights are the average heights of eight standard radials as found in the Commission's records unless otherwise noted, in which case the specific antenna heights and the DA power, if applicable, along the straight line azimuths between the reference station and the database station are used and visa versa. The column labeled "*** OUT ***" shows the distance in kilometers of overlap or clearance between the reference station's interference contour and the database station's protected contour. Negative distance figures in this column indicate outgoing overlap interference.

Under the "AZIMUTH" column, the first row of numbers indicate the bearings from True North of the data base stations in relationship with the reference station, while the numbers in the second row indicate the reverse bearings from the database station to the reference station.

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

For I.F. relationships the "IN" and "OUT" columns 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** separation in kilometers. Minimum separation distances when displayed are taken from Sec 73.207 of the rules as amended. Canadian and Mexican separation distances, U/D ratios and protected contour values are from the US/Mexican Working Agreement and the US/Canada Working Agreement".

The 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 omni. The fifth letter will be an E, H or V depending on the type of antenna polarization. The sixth letter will be a "Y" if the antenna uses beam tilt or an "X" if the commission is not sure, otherwise it will be an "N".

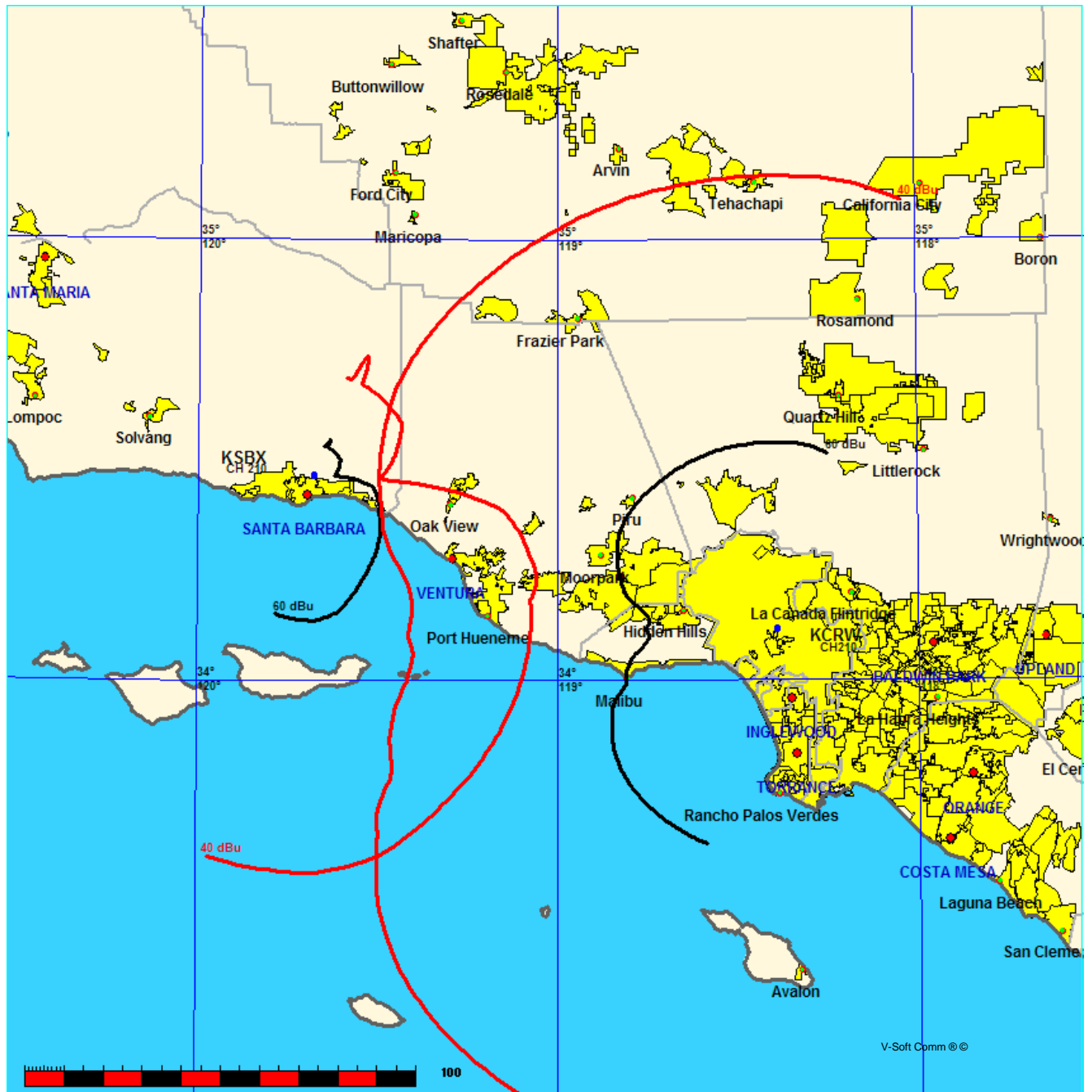
Kcbx, Inc.
Relationship with KCRW

FMCommander Allocation Study
03-30-2006

KSBX CH 210 A
0.35 kW 661 M COR DA
Prot. = 60 dBu
Intef. = 40 dBu

KCRW CH 210 B BLED19810325AF
6.9 kW, 537 M COR
Prot. = 60 dBu
Intef. = 40 dBu

Scale = 1:2,500,000



03-30-2006

30 Arc-Sec. Terrain Data

FMOver Analysis

KSBX
 Channel = 210A
 Max ERP = 0.35 kW
 RCAMSL = 661 M
 N. Lat = 34 27 57
 W. Lng = 119 40 37
 Protected
 60 dBu

KCRW BLED19810325AF
 Channel = 210B
 Max ERP = 6.9 kW
 RCAMSL = 537 M
 N. Lat = 34 07 08
 W. Lng = 118 23 30
 Interfering
 40 dBu

Azi muth (degrees)	ERP (kW)	HAAT (m)	Di st (km)	Azi muth (degrees)	ERP (kW)	HAAT (m)	Di st (km)	Actual (dBu)
048.0	000.3500	-0039.0	007.7	291.6	006.9000	0260.6	120.7	37.41
049.0	000.3500	-0033.5	007.7	291.6	006.9000	0260.6	120.6	37.44
050.0	000.3500	-0027.8	007.7	291.6	006.9000	0260.6	120.5	37.46
051.0	000.3500	-0021.9	007.7	291.5	006.9000	0260.6	120.4	37.49
052.0	000.3500	-0017.4	007.7	291.5	006.9000	0260.6	120.3	37.51
053.0	000.3500	-0017.0	007.7	291.5	006.9000	0254.3	120.1	37.38
054.0	000.3500	-0021.9	007.7	291.4	006.9000	0254.3	120.0	37.41
055.0	000.3500	-0029.9	007.7	291.4	006.9000	0254.3	119.9	37.43
056.0	000.3500	-0038.0	007.7	291.4	006.9000	0254.3	119.8	37.46
057.0	000.3500	-0046.7	007.7	291.3	006.9000	0254.3	119.7	37.48
058.0	000.3500	-0058.7	007.7	291.3	006.9000	0254.3	119.6	37.50
059.0	000.3500	-0073.4	007.7	291.2	006.9000	0254.3	119.5	37.52
060.0	000.3473	-0088.2	007.7	291.2	006.9000	0254.3	119.4	37.54
061.0	000.3316	-0100.8	007.6	291.1	006.9000	0254.3	119.4	37.55
062.0	000.3167	-0110.2	007.5	291.0	006.9000	0254.3	119.3	37.56
063.0	000.3025	-0117.6	007.4	291.0	006.9000	0254.3	119.3	37.57
064.0	000.2888	-0124.6	007.4	290.9	006.9000	0254.3	119.2	37.58
065.0	000.2758	-0129.9	007.3	290.8	006.9000	0254.3	119.2	37.59
066.0	000.2634	-0131.6	007.2	290.8	006.9000	0254.3	119.2	37.59
067.0	000.2516	-0128.5	007.1	290.7	006.9000	0254.3	119.2	37.60
068.0	000.2403	-0120.4	007.0	290.6	006.9000	0254.3	119.1	37.60
069.0	000.2294	-0106.5	006.9	290.5	006.9000	0254.3	119.1	37.61
070.0	000.2191	-0092.6	006.9	290.5	006.9000	0247.1	119.1	37.43
071.0	000.2093	-0081.2	006.8	290.4	006.9000	0247.1	119.1	37.44
072.0	000.1998	-0073.0	006.7	290.3	006.9000	0247.1	119.1	37.44
073.0	000.1908	-0069.5	006.6	290.3	006.9000	0247.1	119.1	37.44
074.0	000.1823	-0068.0	006.5	290.2	006.9000	0247.1	119.1	37.44
075.0	000.1740	-0066.1	006.5	290.1	006.9000	0247.1	119.0	37.44
076.0	000.1662	-0064.9	006.4	290.1	006.9000	0247.1	119.0	37.44
077.0	000.1587	-0065.1	006.3	290.0	006.9000	0247.1	119.0	37.44
078.0	000.1516	-0068.5	006.3	289.9	006.9000	0247.1	119.1	37.44
079.0	000.1448	-0072.3	006.2	289.9	006.9000	0247.1	119.1	37.44
080.0	000.1383	-0080.7	006.1	289.8	006.9000	0247.1	119.1	37.44
081.0	000.1320	-0091.2	006.0	289.8	006.9000	0247.1	119.1	37.43
082.0	000.1261	-0105.6	006.0	289.7	006.9000	0247.1	119.1	37.43
083.0	000.1204	-0128.9	005.9	289.6	006.9000	0247.1	119.1	37.43
084.0	000.1150	-0154.8	005.8	289.6	006.9000	0247.1	119.1	37.43
085.0	000.1098	-0179.5	005.8	289.5	006.9000	0247.1	119.1	37.42
086.0	000.1049	-0198.7	005.7	289.5	006.9000	0239.2	119.2	37.22
087.0	000.1002	-0203.9	005.6	289.4	006.9000	0239.2	119.2	37.22
088.0	000.0956	-0207.9	005.6	289.4	006.9000	0239.2	119.2	37.21
089.0	000.0913	-0211.3	005.5	289.3	006.9000	0239.2	119.2	37.21
090.0	000.0872	-0184.6	005.4	289.3	006.9000	0239.2	119.3	37.20
091.0	000.0833	-0128.3	005.4	289.2	006.9000	0239.2	119.3	37.19
092.0	000.0796	-0071.9	005.3	289.1	006.9000	0239.2	119.3	37.19
093.0	000.0760	-0015.5	005.3	289.1	006.9000	0239.2	119.4	37.18
094.0	000.0726	0032.3	005.4	289.1	006.9000	0239.2	119.2	37.21
095.0	000.0693	0071.8	007.9	289.3	006.9000	0239.2	116.7	37.75
096.0	000.0662	0109.6	009.8	289.4	006.9000	0239.2	114.9	38.15

097.0	000.0632	0146.5	011.1	289.5	006.9000	0239.2	113.6	38.46
098.0	000.0603	0184.9	012.4	289.5	006.9000	0247.1	112.3	38.97
099.0	000.0576	0224.5	013.4	289.5	006.9000	0247.1	111.2	39.22
100.0	000.0550	0261.8	014.3	289.5	006.9000	0239.2	110.3	39.24
101.0	000.0524	0291.2	015.0	289.4	006.9000	0239.2	109.6	39.41
102.0	000.0498	0315.0	015.4	289.3	006.9000	0239.2	109.2	39.52
103.0	000.0473	0335.0	015.7	289.1	006.9000	0239.2	108.8	39.61
104.0	000.0449	0354.7	015.9	289.0	006.9000	0239.2	108.6	39.68
105.0	000.0425	0377.6	016.2	288.9	006.9000	0239.2	108.3	39.75
106.0	000.0402	0400.1	016.4	288.7	006.9000	0239.2	108.0	39.81
107.0	000.0380	0422.3	016.6	288.6	006.9000	0239.2	107.8	39.87
108.0	000.0358	0445.2	016.8	288.4	006.9000	0231.6	107.7	39.70
109.0	000.0337	0467.5	017.0	288.2	006.9000	0231.6	107.5	39.74
110.0	000.0316	0488.9	017.1	288.1	006.9000	0231.6	107.4	39.77
111.0	000.0314	0506.8	017.4	287.9	006.9000	0231.6	107.1	39.85
112.0	000.0311	0522.3	017.7	287.7	006.9000	0231.6	106.8	39.92
113.0	000.0309	0536.4	018.0	287.6	006.9000	0231.6	106.6	39.98
114.0	000.0306	0549.2	018.2	287.4	006.9000	0224.7	106.4	39.83
115.0	000.0304	0561.1	018.4	287.2	006.9000	0224.7	106.3	39.87
116.0	000.0301	0572.1	018.6	287.0	006.9000	0224.7	106.1	39.90
117.0	000.0299	0582.0	018.7	286.8	006.9000	0224.7	106.0	39.93
118.0	000.0296	0590.6	018.8	286.6	006.9000	0224.7	106.0	39.94
119.0	000.0294	0597.8	018.9	286.4	006.9000	0219.0	106.0	39.78
120.0	000.0292	0603.7	019.0	286.3	006.9000	0219.0	106.0	39.77
121.0	000.0305	0608.4	019.3	286.0	006.9000	0219.0	105.8	39.83
122.0	000.0320	0612.3	019.6	285.8	006.9000	0219.0	105.5	39.89
123.0	000.0335	0615.5	019.9	285.6	006.9000	0219.0	105.4	39.93
124.0	000.0351	0618.5	020.2	285.3	006.9000	0213.6	105.2	39.82
125.0	000.0367	0621.3	020.5	285.1	006.9000	0213.6	105.0	39.86
126.0	000.0384	0623.9	020.8	284.9	006.9000	0213.6	104.9	39.90
127.0	000.0403	0626.1	021.1	284.6	006.9000	0213.6	104.8	39.93
128.0	000.0422	0628.2	021.4	284.4	006.9000	0207.5	104.7	39.77
129.0	000.0441	0630.0	021.7	284.1	006.9000	0207.5	104.6	39.80
130.0	000.0462	0631.6	022.0	283.9	006.9000	0207.5	104.5	39.82
131.0	000.0484	0633.0	022.2	283.6	006.9000	0207.5	104.4	39.84
132.0	000.0507	0634.3	022.5	283.3	006.9000	0200.0	104.4	39.62
133.0	000.0531	0635.4	022.8	283.1	006.9000	0200.0	104.3	39.63
134.0	000.0556	0636.3	023.1	282.8	006.9000	0200.0	104.3	39.64
135.0	000.0582	0637.1	023.3	282.5	006.9000	0200.0	104.3	39.64
136.0	000.0609	0637.7	023.6	282.3	006.9000	0191.3	104.3	39.37
137.0	000.0638	0638.3	023.9	282.0	006.9000	0191.3	104.3	39.37
138.0	000.0668	0638.7	024.2	281.7	006.9000	0191.3	104.3	39.36
139.0	000.0700	0639.1	024.4	281.4	006.9000	0181.8	104.4	39.05
140.0	000.0733	0639.3	024.7	281.2	006.9000	0181.8	104.4	39.04
141.0	000.0767	0639.5	025.0	280.9	006.9000	0181.8	104.5	39.02
142.0	000.0803	0639.6	025.3	280.6	006.9000	0181.8	104.6	39.00
143.0	000.0841	0639.6	025.5	280.3	006.9000	0171.2	104.7	38.64
144.0	000.0881	0639.6	025.8	280.0	006.9000	0171.2	104.8	38.61
145.0	000.0922	0639.6	026.1	279.7	006.9000	0171.2	104.9	38.58
146.0	000.0966	0639.6	026.4	279.5	006.9000	0160.3	105.0	38.19
147.0	000.1011	0639.6	026.7	279.2	006.9000	0160.3	105.2	38.15
148.0	000.1059	0639.7	027.0	278.9	006.9000	0160.3	105.3	38.11
149.0	000.1109	0639.7	027.3	278.6	006.9000	0160.3	105.5	38.07
150.0	000.1161	0639.8	027.6	278.3	006.9000	0150.2	105.7	37.69
151.0	000.1216	0640.0	027.9	278.0	006.9000	0150.2	105.9	37.64
152.0	000.1273	0640.2	028.2	277.7	006.9000	0150.2	106.1	37.59
153.0	000.1333	0640.4	028.5	277.4	006.9000	0141.5	106.4	37.24
154.0	000.1396	0640.7	028.8	277.1	006.9000	0141.5	106.6	37.18
155.0	000.1462	0641.1	029.2	276.8	006.9000	0141.5	106.9	37.13
156.0	000.1531	0641.4	029.5	276.5	006.9000	0141.5	107.1	37.07
157.0	000.1603	0641.8	029.9	276.2	006.9000	0135.9	107.4	36.81
158.0	000.1678	0642.3	030.2	275.9	006.9000	0135.9	107.7	36.75
159.0	000.1757	0642.7	030.6	275.6	006.9000	0135.9	108.0	36.68
160.0	000.1840	0643.2	030.9	275.3	006.9000	0132.5	108.3	36.50
161.0	000.1927	0643.7	031.3	275.0	006.9000	0132.5	108.7	36.42

162.0	000.2018	0644.1	031.7	274.7	006.9000	0132.5	109.0	36.35
163.0	000.2113	0644.6	032.1	274.4	006.9000	0129.5	109.4	36.17
164.0	000.2213	0645.2	032.5	274.1	006.9000	0129.5	109.8	36.09
165.0	000.2317	0645.7	032.9	273.8	006.9000	0129.5	110.2	36.01
166.0	000.2426	0646.3	033.4	273.5	006.9000	0129.5	110.6	35.93
167.0	000.2540	0646.9	033.8	273.2	006.9000	0128.2	111.1	35.79
168.0	000.2660	0647.4	034.2	272.9	006.9000	0128.2	111.5	35.70

03-30-2006 30 Arc-Sec. Sec. Terrain Data

KCRW BLED19810325AF
Channel = 210B
Max ERP = 6.9 kW
RCAMSL = 537 M
N. Lat = 34 07 08
W. Lng = 118 23 30
Protected
60 dBu

KSBX
Channel = 210A
Max ERP = 0.35 kW
RCAMSL = 661 M
N. Lat = 34 27 57
W. Lng = 119 40 37
Interfering
40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
228.0	006.9000	0414.5	053.5	133.2	000.0537	0635.4	108.2	29.54
229.0	006.9000	0408.9	053.2	133.0	000.0531	0635.4	107.4	29.72
230.0	006.9000	0403.0	052.9	132.8	000.0526	0635.4	106.5	29.91
231.0	006.9000	0396.9	052.6	132.6	000.0520	0635.4	105.6	30.09
232.0	006.9000	0390.8	052.2	132.3	000.0514	0634.3	104.8	30.25
233.0	006.9000	0384.7	051.9	132.0	000.0508	0634.3	103.9	30.42
234.0	006.9000	0377.9	051.5	131.7	000.0501	0634.3	103.1	30.58
235.0	006.9000	0370.7	051.1	131.4	000.0493	0633.0	102.3	30.70
236.0	006.9000	0363.1	050.7	131.0	000.0485	0633.0	101.6	30.83
237.0	006.9000	0355.4	050.2	130.7	000.0477	0633.0	100.8	30.95
238.0	006.9000	0348.0	049.8	130.3	000.0468	0631.6	100.1	31.05
239.0	006.9000	0340.7	049.3	129.9	000.0459	0631.6	099.5	31.15
240.0	006.9000	0333.5	048.8	129.4	000.0451	0630.0	098.8	31.22
241.0	006.9000	0326.0	048.4	129.0	000.0442	0630.0	098.2	31.31
242.0	006.9000	0317.9	047.8	128.5	000.0432	0630.0	097.6	31.38
243.0	006.9000	0309.4	047.3	128.0	000.0422	0628.2	097.1	31.41
244.0	006.9000	0301.5	046.8	127.6	000.0413	0628.2	096.5	31.47
245.0	006.9000	0292.5	046.2	127.0	000.0403	0626.1	096.1	31.46
246.0	006.9000	0280.4	045.4	126.4	000.0392	0623.9	095.7	31.40
247.0	006.9000	0263.6	044.3	125.6	000.0378	0623.9	095.6	31.28
248.0	006.9000	0244.5	043.1	124.7	000.0363	0621.3	095.6	31.06
249.0	006.9000	0227.5	042.0	123.9	000.0349	0618.5	095.6	30.85
250.0	006.9000	0215.6	041.1	123.3	000.0339	0615.5	095.5	30.70
251.0	006.9000	0210.3	040.8	122.8	000.0332	0615.5	095.2	30.71
252.0	006.9000	0208.3	040.6	122.5	000.0327	0612.3	094.7	30.73
253.0	006.9000	0204.7	040.3	122.1	000.0321	0612.3	094.4	30.76
254.0	006.9000	0200.9	040.0	121.7	000.0315	0612.3	094.0	30.77
255.0	006.9000	0196.0	039.7	121.2	000.0308	0608.4	093.8	30.70
256.0	006.9000	0190.0	039.2	120.7	000.0301	0608.4	093.6	30.64
257.0	006.9000	0183.9	038.7	120.2	000.0294	0603.7	093.5	30.50
258.0	006.9000	0176.4	038.0	119.6	000.0293	0603.7	093.5	30.47
259.0	006.9000	0168.6	037.3	119.0	000.0294	0597.8	093.6	30.34
260.0	006.9000	0160.5	036.4	118.4	000.0296	0590.6	093.9	30.16
261.0	006.9000	0152.0	035.4	117.7	000.0297	0590.6	094.3	30.07
262.0	006.9000	0144.5	034.6	117.1	000.0299	0582.0	094.6	29.83
263.0	006.9000	0139.6	034.0	116.6	000.0300	0582.0	094.7	29.81
264.0	006.9000	0134.7	033.4	116.1	000.0301	0572.1	094.9	29.59
265.0	006.9000	0130.3	032.9	115.6	000.0302	0572.1	095.0	29.57
266.0	006.9000	0128.4	032.7	115.3	000.0303	0561.1	094.9	29.38

267.0	006.9000	0130.1	032.9	115.0	000.0304	0561.1	094.5	29.52
268.0	006.9000	0132.2	033.2	114.8	000.0304	0561.1	094.0	29.67
269.0	006.9000	0134.6	033.4	114.5	000.0305	0561.1	093.5	29.82
270.0	006.9000	0133.3	033.3	114.2	000.0306	0549.2	093.4	29.61
271.0	006.9000	0131.5	033.1	113.8	000.0307	0549.2	093.3	29.64
272.0	006.9000	0129.8	032.9	113.4	000.0308	0536.4	093.3	29.38
273.0	006.9000	0128.2	032.7	113.1	000.0309	0536.4	093.2	29.41
274.0	006.9000	0129.5	032.9	112.8	000.0309	0536.4	092.9	29.52
275.0	006.9000	0132.5	033.2	112.5	000.0310	0522.3	092.4	29.37
276.0	006.9000	0135.9	033.6	112.2	000.0311	0522.3	091.8	29.54
277.0	006.9000	0141.5	034.2	112.0	000.0311	0522.3	091.0	29.79
278.0	006.9000	0150.2	035.2	111.8	000.0312	0522.3	089.9	30.14
279.0	006.9000	0160.3	036.4	111.5	000.0312	0522.3	088.6	30.54
280.0	006.9000	0171.2	037.5	111.3	000.0313	0506.8	087.4	30.62
281.0	006.9000	0181.8	038.5	111.0	000.0314	0506.8	086.3	30.98
282.0	006.9000	0191.3	039.3	110.6	000.0315	0506.8	085.4	31.27
283.0	006.9000	0200.0	040.0	110.2	000.0316	0488.9	084.6	31.15
284.0	006.9000	0207.5	040.5	109.8	000.0320	0488.9	084.0	31.42
285.0	006.9000	0213.6	041.0	109.4	000.0329	0467.5	083.5	31.19
286.0	006.9000	0219.0	041.4	108.9	000.0339	0467.5	083.0	31.46
287.0	006.9000	0224.7	041.8	108.4	000.0350	0445.2	082.6	31.11
288.0	006.9000	0231.6	042.3	107.9	000.0360	0445.2	082.1	31.41
289.0	006.9000	0239.2	042.8	107.4	000.0372	0422.3	081.6	31.02
290.0	006.9000	0247.1	043.3	106.8	000.0384	0422.3	081.1	31.32
291.0	006.9000	0254.3	043.7	106.3	000.0396	0400.1	080.7	30.92
292.0	006.9000	0260.6	044.2	105.7	000.0409	0400.1	080.3	31.17
293.0	006.9000	0266.4	044.5	105.1	000.0423	0377.6	080.1	30.69
294.0	006.9000	0271.8	044.9	104.5	000.0437	0377.6	079.8	30.91
295.0	006.9000	0276.8	045.2	103.9	000.0451	0354.7	079.6	30.36
296.0	006.9000	0281.7	045.5	103.3	000.0466	0335.0	079.5	29.90
297.0	006.9000	0286.6	045.8	102.7	000.0481	0335.0	079.4	30.08
298.0	006.9000	0291.4	046.1	102.1	000.0497	0315.0	079.3	29.59
299.0	006.9000	0296.0	046.4	101.4	000.0513	0291.2	079.2	28.98
300.0	006.9000	0300.3	046.7	100.8	000.0529	0291.2	079.2	29.12
301.0	006.9000	0304.1	047.0	100.2	000.0545	0261.8	079.2	28.33
302.0	006.9000	0307.3	047.2	099.6	000.0561	0261.8	079.3	28.42
303.0	006.9000	0309.7	047.3	099.0	000.0576	0224.5	079.5	27.25
304.0	006.9000	0311.5	047.4	098.4	000.0592	0184.9	079.8	25.73
305.0	006.9000	0312.8	047.5	097.9	000.0607	0184.9	080.0	25.75
306.0	006.9000	0313.8	047.6	097.3	000.0623	0146.5	080.4	24.11
307.0	006.9000	0314.8	047.6	096.8	000.0639	0146.5	080.7	24.11
308.0	006.9000	0315.7	047.7	096.2	000.0654	0109.6	081.1	22.40
309.0	006.9000	0316.4	047.7	095.7	000.0670	0109.6	081.5	22.39
310.0	006.9000	0316.8	047.8	095.2	000.0686	0071.8	081.9	20.47
311.0	006.9000	0316.9	047.8	094.7	000.0701	0071.8	082.4	20.45
312.0	006.9000	0316.9	047.8	094.3	000.0716	0032.3	082.9	18.17
313.0	006.9000	0316.7	047.8	093.8	000.0731	0032.3	083.4	18.15
314.0	006.9000	0316.3	047.7	093.4	000.0746	-0015.5	084.0	17.99
315.0	006.9000	0315.8	047.7	093.0	000.0760	-0015.5	084.5	17.95
316.0	006.9000	0315.3	047.7	092.6	000.0775	-0015.5	085.1	17.92
317.0	006.9000	0314.9	047.6	092.2	000.0789	-0071.9	085.7	17.87
318.0	006.9000	0314.7	047.6	091.8	000.0803	-0071.9	086.3	17.83
319.0	006.9000	0314.7	047.6	091.4	000.0817	-0128.3	086.9	17.78
320.0	006.9000	0314.8	047.6	091.0	000.0831	-0128.3	087.5	17.73
321.0	006.9000	0314.9	047.6	090.7	000.0845	-0128.3	088.1	17.67
322.0	006.9000	0315.0	047.6	090.3	000.0859	-0184.6	088.8	17.61
323.0	006.9000	0314.8	047.6	090.0	000.0872	-0184.6	089.4	17.54
324.0	006.9000	0314.4	047.6	089.7	000.0884	-0184.6	090.1	17.46
325.0	006.9000	0313.9	047.6	089.4	000.0896	-0211.3	090.8	17.38
326.0	006.9000	0313.5	047.6	089.1	000.0908	-0211.3	091.5	17.29
327.0	006.9000	0313.2	047.5	088.9	000.0920	-0211.3	092.2	17.20
328.0	006.9000	0312.8	047.5	088.6	000.0931	-0211.3	092.9	17.10
329.0	006.9000	0312.6	047.5	088.3	000.0941	-0207.9	093.6	17.01
330.0	006.9000	0312.4	047.5	088.1	000.0952	-0207.9	094.4	16.91
331.0	006.9000	0312.4	047.5	087.9	000.0962	-0207.9	095.1	16.81

332.0	006.9000	0312.4	047.5	087.6	000.0973	-0207.9	095.8	16.70
333.0	006.9000	0312.4	047.5	087.4	000.0982	-0203.9	096.6	16.60
334.0	006.9000	0312.2	047.5	087.2	000.0991	-0203.9	097.3	16.48
335.0	006.9000	0312.0	047.5	087.0	000.1000	-0203.9	098.1	16.37
336.0	006.9000	0311.6	047.4	086.9	000.1007	-0203.9	098.9	16.25
337.0	006.9000	0311.3	047.4	086.7	000.1015	-0203.9	099.7	16.12
338.0	006.9000	0311.0	047.4	086.6	000.1022	-0203.9	100.5	15.99
339.0	006.9000	0310.7	047.4	086.4	000.1029	-0198.7	101.2	15.86
340.0	006.9000	0310.5	047.4	086.3	000.1035	-0198.7	102.0	15.73
341.0	006.9000	0310.3	047.3	086.2	000.1041	-0198.7	102.8	15.60
342.0	006.9000	0310.0	047.3	086.1	000.1046	-0198.7	103.6	15.46
343.0	006.9000	0309.5	047.3	086.0	000.1051	-0198.7	104.4	15.32
344.0	006.9000	0308.8	047.3	085.9	000.1055	-0198.7	105.3	15.17
345.0	006.9000	0308.3	047.2	085.8	000.1058	-0198.7	106.1	15.02
346.0	006.9000	0307.8	047.2	085.7	000.1062	-0198.7	106.9	14.88
347.0	006.9000	0307.2	047.2	085.7	000.1064	-0198.7	107.7	14.72
348.0	006.9000	0306.6	047.1	085.6	000.1067	-0198.7	108.5	14.57

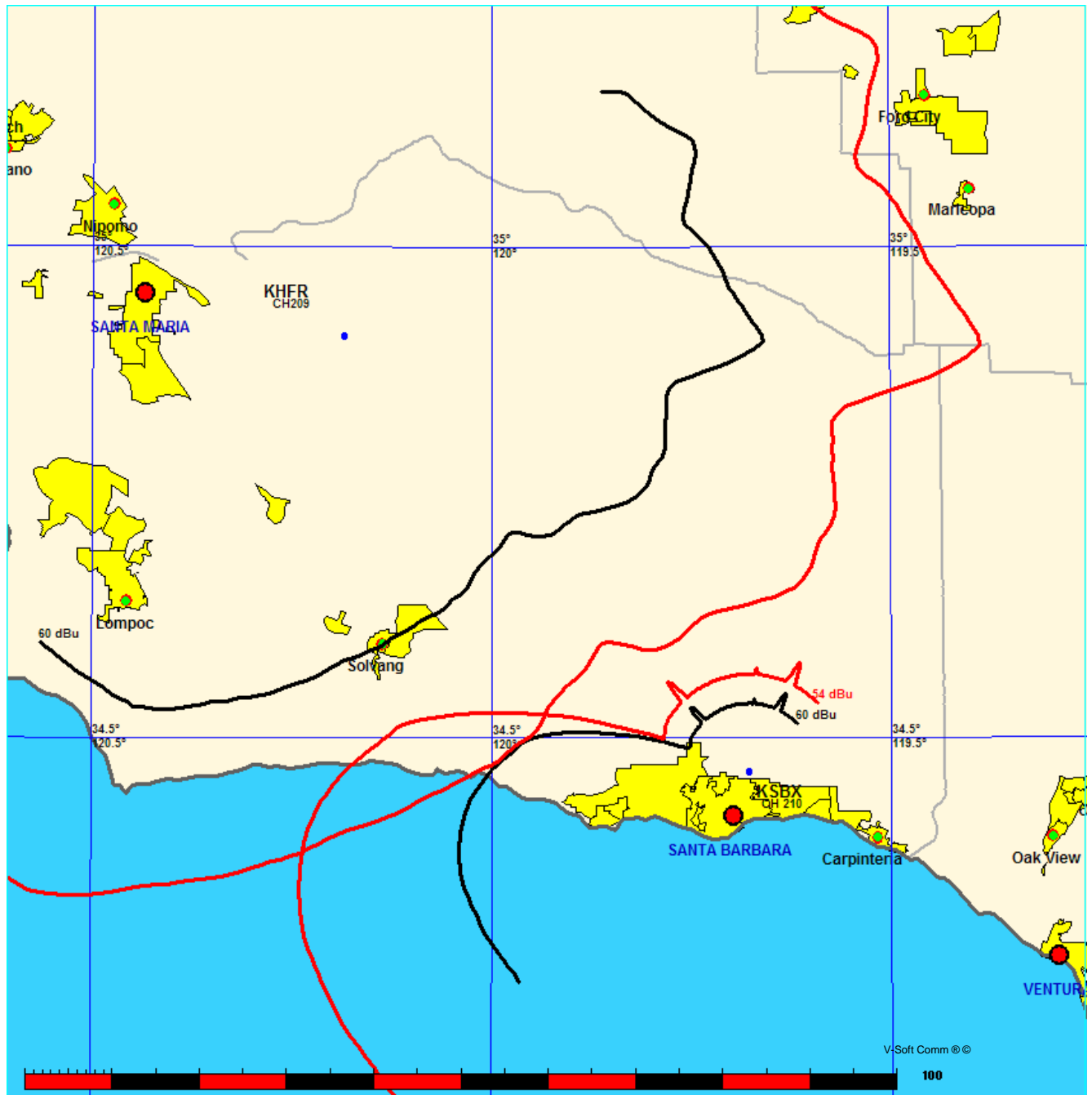
Kcbx, Inc.
Relationship with KHFR

FMCommander Allocation Study
03-30-2006

KSBX CH 210 A
0.35 kW 661 M COR DA
Prot. = 60 dBu
Intef. = 54 dBu

KHFR CH 209 B BLED20050615ACJ
2.45 kW, 1005 M COR DA
Prot. = 60 dBu
Intef. = 54 dBu

Scale = 1:1,125,000



03-30-2006

30 Arc-Sec. Terrain Data

FMOver Analysis

KSBX
 Channel = 210A
 Max ERP = 0.35 kW
 RCAMSL = 661 M
 N. Lat = 34 27 57
 W. Lng = 119 40 37
 Protected
 60 dBu

KHFR BLED20050615ACJ
 Channel = 209B
 Max ERP = 2.45 kW
 RCAMSL = 1005 M
 N. Lat = 34 54 37
 W. Lng = 120 11 08
 Interfering
 54 dBu

Azi muth (degrees)	ERP (kW)	HAAT (m)	Di st (km)	Azi muth (degrees)	ERP (kW)	HAAT (m)	Di st (km)	Actual (dBu)
257.0	000.3250	0587.1	034.1	166.8	000.2493	0660.9	058.5	51.84
258.0	000.3215	0583.6	033.9	166.6	000.2493	0660.9	057.9	52.05
259.0	000.3180	0579.4	033.7	166.3	000.2493	0653.6	057.4	52.16
260.0	000.3145	0574.8	033.4	166.1	000.2493	0653.6	056.8	52.37
261.0	000.3102	0570.2	033.2	165.8	000.2493	0653.6	056.2	52.57
262.0	000.3060	0565.6	032.9	165.4	000.2493	0647.1	055.7	52.68
263.0	000.3017	0560.6	032.6	165.0	000.2493	0647.1	055.1	52.88
264.0	000.2975	0554.2	032.3	164.6	000.2493	0647.1	054.6	53.06
265.0	000.2933	0547.3	031.9	164.1	000.2493	0642.3	054.2	53.18
266.0	000.2892	0540.3	031.5	163.6	000.2493	0642.3	053.7	53.35
267.0	000.2851	0531.8	031.1	163.0	000.2493	0638.4	053.3	53.45
268.0	000.2810	0522.3	030.6	162.4	000.2493	0635.2	052.9	53.56
269.0	000.2769	0512.7	030.2	161.8	000.2493	0635.2	052.5	53.69
270.0	000.2729	0503.1	029.7	161.1	000.2493	0632.8	052.1	53.79
271.0	000.2679	0492.7	029.2	160.4	000.2493	0629.1	051.8	53.86
272.0	000.2630	0480.7	028.7	159.7	000.2493	0629.1	051.5	53.96
273.0	000.2581	0468.3	028.1	158.9	000.2493	0622.0	051.3	53.95
274.0	000.2532	0455.7	027.6	158.1	000.2493	0612.0	051.1	53.89
275.0	000.2484	0442.9	027.1	157.3	000.2493	0603.3	050.9	53.84
276.0	000.2437	0433.1	026.7	156.7	000.2493	0603.3	050.7	53.91
277.0	000.2390	0425.0	026.3	156.1	000.2493	0599.7	050.5	53.94
278.0	000.2343	0410.6	025.7	155.3	000.2493	0597.9	050.4	53.95
279.0	000.2297	0385.5	024.9	154.2	000.2493	0592.4	050.5	53.83
280.0	000.2251	0353.5	023.8	152.9	000.2493	0581.0	050.8	53.55
281.0	000.2307	0315.8	022.7	151.6	000.2493	0567.3	051.1	53.21
282.0	000.2363	0274.0	021.3	150.2	000.2493	0547.3	051.7	52.64
283.0	000.2419	0233.9	019.9	148.7	000.2555	0539.9	052.5	52.35
284.0	000.2477	0196.7	018.3	147.3	000.2624	0523.8	053.3	51.81
285.0	000.2535	0163.8	016.8	146.0	000.2691	0518.7	054.2	51.48
286.0	000.2593	0135.1	015.1	144.6	000.2760	0513.6	055.4	51.05
287.0	000.2653	0109.1	013.6	143.5	000.2818	0498.6	056.4	50.40
288.0	000.2713	0083.9	012.1	142.4	000.2875	0489.3	057.5	49.83
289.0	000.2774	0061.2	010.5	141.4	000.2927	0480.2	058.7	49.25
290.0	000.2835	0040.1	008.5	140.2	000.2989	0473.3	060.4	48.56
291.0	000.2898	0020.9	007.4	139.6	000.3056	0473.3	061.3	48.34
292.0	000.2962	0002.1	007.4	139.5	000.3068	0473.3	061.2	48.39
293.0	000.3027	-0016.4	007.4	139.4	000.3081	0470.9	061.1	48.37
294.0	000.3093	-0035.7	007.5	139.3	000.3094	0470.9	061.0	48.42
295.0	000.3159	-0056.4	007.5	139.2	000.3107	0470.9	060.9	48.48
296.0	000.3226	-0077.4	007.6	139.1	000.3120	0470.9	060.8	48.53
297.0	000.3293	-0098.2	007.6	139.0	000.3134	0470.9	060.7	48.58
298.0	000.3361	-0113.6	007.6	138.9	000.3148	0470.9	060.6	48.63
299.0	000.3430	-0121.9	007.7	138.8	000.3163	0470.9	060.6	48.68
300.0	000.3500	-0121.4	007.7	138.7	000.3178	0470.9	060.5	48.73
301.0	000.3500	-0114.9	007.7	138.6	000.3195	0470.9	060.4	48.77
302.0	000.3500	-0105.6	007.7	138.5	000.3212	0475.9	060.4	48.94
303.0	000.3500	-0094.7	007.7	138.3	000.3229	0475.9	060.4	48.97
304.0	000.3500	-0080.9	007.7	138.2	000.3247	0475.9	060.3	49.01
305.0	000.3500	-0064.3	007.7	138.1	000.3264	0475.9	060.3	49.04

306.0	000.3500	-0047.8	007.7	138.0	000.3282	0475.9	060.3	49.08
307.0	000.3500	-0034.5	007.7	137.9	000.3300	0475.9	060.2	49.11
308.0	000.3500	-0024.7	007.7	137.7	000.3317	0475.9	060.2	49.14
309.0	000.3500	-0016.3	007.7	137.6	000.3336	0475.9	060.2	49.17
310.0	000.3500	-0008.2	007.7	137.5	000.3354	0488.1	060.2	49.53
311.0	000.3500	-0000.9	007.7	137.3	000.3372	0488.1	060.2	49.56
312.0	000.3500	0005.1	007.7	137.2	000.3390	0488.1	060.1	49.58
313.0	000.3500	0011.2	007.7	137.1	000.3409	0488.1	060.1	49.61
314.0	000.3500	0019.6	007.7	137.0	000.3427	0488.1	060.1	49.64
315.0	000.3500	0031.3	007.9	136.8	000.3445	0488.1	060.0	49.72
316.0	000.3500	0042.9	009.3	136.7	000.3461	0488.1	058.5	50.25
317.0	000.3500	0048.8	010.0	136.6	000.3485	0488.1	057.9	50.52
318.0	000.3500	0046.2	009.7	136.4	000.3509	0501.4	058.2	50.79
319.0	000.3500	0037.3	008.6	136.3	000.3527	0501.4	059.2	50.43
320.0	000.3500	0026.1	007.7	136.2	000.3540	0501.4	060.1	50.13
321.0	000.3500	0017.2	007.7	136.1	000.3559	0501.4	060.1	50.14
322.0	000.3500	0014.3	007.7	135.9	000.3578	0501.4	060.1	50.16
323.0	000.3500	0015.4	007.7	135.8	000.3597	0501.4	060.2	50.18
324.0	000.3500	0016.3	007.7	135.7	000.3616	0501.4	060.2	50.20
325.0	000.3500	0014.9	007.7	135.5	000.3635	0501.4	060.2	50.21
326.0	000.3500	0011.1	007.7	135.4	000.3653	0508.5	060.2	50.41
327.0	000.3500	0006.1	007.7	135.3	000.3672	0508.5	060.3	50.43
328.0	000.3500	0001.5	007.7	135.2	000.3691	0508.5	060.3	50.44
329.0	000.3500	-0001.7	007.7	135.0	000.3710	0508.5	060.3	50.45
330.0	000.3500	-0004.5	007.7	134.9	000.3729	0508.5	060.3	50.46
331.0	000.3500	-0008.7	007.7	134.8	000.3747	0508.5	060.4	50.47
332.0	000.3500	-0015.3	007.7	134.7	000.3766	0508.5	060.4	50.48
333.0	000.3500	-0024.4	007.7	134.6	000.3784	0508.5	060.5	50.48
334.0	000.3500	-0034.9	007.7	134.4	000.3803	0508.6	060.5	50.49
335.0	000.3500	-0046.6	007.7	134.3	000.3821	0508.6	060.6	50.50
336.0	000.3500	-0058.5	007.7	134.2	000.3839	0508.6	060.6	50.50
337.0	000.3500	-0071.7	007.7	134.1	000.3858	0508.6	060.7	50.50
338.0	000.3500	-0087.5	007.7	134.0	000.3876	0508.6	060.7	50.50
339.0	000.3500	-0102.3	007.7	133.8	000.3894	0508.6	060.8	50.50
340.0	000.3500	-0113.0	007.7	133.7	000.3911	0508.6	060.8	50.50
341.0	000.3500	-0115.0	007.7	133.6	000.3929	0508.6	060.9	50.50
342.0	000.3500	-0112.8	007.7	133.5	000.3946	0508.6	060.9	50.50
343.0	000.3500	-0109.2	007.7	133.4	000.3964	0506.0	061.0	50.43
344.0	000.3500	-0108.8	007.7	133.3	000.3981	0506.0	061.1	50.42
345.0	000.3500	-0108.0	007.7	133.2	000.3998	0506.0	061.1	50.42
346.0	000.3500	-0104.5	007.7	133.1	000.4014	0506.0	061.2	50.41
347.0	000.3500	-0100.5	007.7	133.0	000.4031	0506.0	061.3	50.40
348.0	000.3500	-0095.4	007.7	132.9	000.4047	0506.0	061.4	50.39
349.0	000.3500	-0092.7	007.7	132.8	000.4063	0506.0	061.4	50.38
350.0	000.3500	-0088.2	007.7	132.7	000.4079	0506.0	061.5	50.37
351.0	000.3500	-0077.5	007.7	132.6	000.4095	0506.0	061.6	50.36
352.0	000.3500	-0062.2	007.7	132.5	000.4111	0502.5	061.7	50.25
353.0	000.3500	-0052.0	007.7	132.4	000.4126	0502.5	061.8	50.24
354.0	000.3500	-0045.9	007.7	132.3	000.4141	0502.5	061.9	50.22
355.0	000.3500	-0042.5	007.7	132.2	000.4156	0502.5	062.0	50.21
356.0	000.3500	-0037.3	007.7	132.1	000.4170	0502.5	062.1	50.19
357.0	000.3500	-0036.3	007.7	132.0	000.4184	0502.5	062.1	50.17
358.0	000.3500	-0031.5	007.7	131.9	000.4198	0502.5	062.2	50.15
359.0	000.3500	-0029.9	007.7	131.8	000.4212	0502.5	062.3	50.13
000.0	000.3500	-0028.2	007.7	131.7	000.4226	0502.5	062.4	50.11
001.0	000.3500	-0021.9	007.7	131.7	000.4239	0502.5	062.5	50.09
002.0	000.3500	-0001.7	007.7	131.6	000.4252	0502.5	062.6	50.07
003.0	000.3500	0020.8	007.7	131.5	000.4264	0497.4	062.8	49.91
004.0	000.3500	0034.6	008.3	131.0	000.4341	0497.4	062.5	50.07
005.0	000.3500	0025.4	007.7	131.3	000.4289	0497.4	063.0	49.86
006.0	000.3500	0012.7	007.7	131.3	000.4300	0497.4	063.1	49.83
007.0	000.3500	-0001.1	007.7	131.2	000.4312	0497.4	063.2	49.81
008.0	000.3500	-0018.1	007.7	131.1	000.4323	0497.4	063.3	49.78
009.0	000.3500	-0035.6	007.7	131.1	000.4334	0497.4	063.4	49.75
010.0	000.3500	-0044.6	007.7	131.0	000.4344	0497.4	063.5	49.72

011.0	000.3500	-0041.7	007.7	130.9	000.4354	0497.4	063.6	49.69
012.0	000.3500	-0032.0	007.7	130.9	000.4364	0497.4	063.8	49.66
013.0	000.3500	-0028.3	007.7	130.8	000.4373	0497.4	063.9	49.63
014.0	000.3500	-0031.4	007.7	130.8	000.4383	0497.4	064.0	49.60
015.0	000.3500	-0036.7	007.7	130.7	000.4391	0497.4	064.1	49.57
016.0	000.3500	-0039.0	007.7	130.7	000.4400	0497.4	064.2	49.53
017.0	000.3500	-0038.0	007.7	130.6	000.4408	0497.4	064.4	49.50

03-30-2006 30 Arc-Sec. Sec. Terrain Data

KHFR BLED20050615ACJ
Channel = 209B
Max ERP = 2.45 kW
RCAMSL = 1005 M
N. Lat = 34 54 37
W. Lng = 120 11 08
Protected
60 dBu

KSBX
Channel = 210A
Max ERP = 0.35 kW
RCAMSL = 661 M
N. Lat = 34 27 57
W. Lng = 119 40 37
Interfering
54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
077.0	002.4500	0393.2	043.0	355.5	000.3500	-0042.5	059.2	29.42
078.0	002.4500	0398.5	043.2	355.8	000.3500	-0037.3	058.4	29.57
079.0	002.4500	0404.5	043.5	356.2	000.3500	-0037.3	057.7	29.72
080.0	002.4500	0410.9	043.8	356.6	000.3500	-0036.3	057.0	29.87
081.0	002.4500	0415.5	044.0	356.9	000.3500	-0036.3	056.3	30.03
082.0	002.4500	0419.2	044.2	357.1	000.3500	-0036.3	055.5	30.19
083.0	002.4500	0424.2	044.5	357.4	000.3500	-0036.3	054.8	30.35
084.0	002.4500	0432.5	044.9	357.9	000.3500	-0031.5	054.0	30.51
085.0	002.4500	0441.7	045.3	358.5	000.3500	-0031.5	053.3	30.67
086.0	002.4500	0450.3	045.8	359.0	000.3500	-0029.9	052.5	30.84
087.0	002.4500	0459.4	046.2	359.5	000.3500	-0028.2	051.7	31.01
088.0	002.4500	0469.7	046.8	000.2	000.3500	-0028.2	050.9	31.18
089.0	002.4500	0480.2	047.3	000.8	000.3500	-0021.9	050.1	31.35
090.0	002.4500	0490.8	047.9	001.5	000.3500	-0021.9	049.3	31.53
091.0	002.3506	0499.7	048.0	001.6	000.3500	-0001.7	048.5	31.71
092.0	002.2532	0486.0	046.9	000.3	000.3500	-0028.2	047.7	31.89
093.0	002.1579	0468.5	045.6	358.6	000.3500	-0029.9	046.9	32.06
094.0	002.0647	0450.5	044.3	357.0	000.3500	-0036.3	046.3	32.21
095.0	001.9735	0426.9	042.7	355.0	000.3500	-0042.5	045.8	32.34
096.0	001.8844	0400.0	041.1	352.8	000.3500	-0052.0	045.4	32.44
097.0	001.7973	0376.7	039.7	350.9	000.3500	-0077.5	045.0	32.52
098.0	001.7123	0358.6	038.5	349.1	000.3500	-0092.7	044.8	32.59
099.0	001.6293	0354.6	037.9	348.1	000.3500	-0095.4	044.3	32.71
100.0	001.5485	0356.8	037.6	347.4	000.3500	-0100.5	043.8	32.84
101.0	001.4883	0364.4	037.7	347.2	000.3500	-0100.5	043.2	33.01
102.0	001.4293	0375.0	037.8	347.0	000.3500	-0100.5	042.5	33.20
103.0	001.3715	0384.3	037.9	346.7	000.3500	-0100.5	041.9	33.38
104.0	001.3149	0395.9	038.0	346.4	000.3500	-0104.5	041.3	33.58
105.0	001.2595	0405.8	038.1	346.1	000.3500	-0104.5	040.7	33.77
106.0	001.2053	0419.6	038.3	345.9	000.3500	-0104.5	040.0	33.98
107.0	001.1523	0433.0	038.5	345.7	000.3500	-0104.5	039.3	34.20
108.0	001.1005	0446.5	038.7	345.4	000.3500	-0108.0	038.6	34.42
109.0	001.0498	0461.1	039.0	345.1	000.3500	-0108.0	037.9	34.66
110.0	001.0004	0471.8	039.0	344.6	000.3500	-0108.0	037.3	34.86
111.0	000.9619	0478.8	039.0	344.0	000.3500	-0108.8	036.8	35.04
112.0	000.9242	0481.8	038.8	343.1	000.3500	-0109.2	036.4	35.19
113.0	000.8873	0485.3	038.6	342.1	000.3500	-0112.8	036.0	35.33
114.0	000.8511	0492.9	038.6	341.4	000.3500	-0115.0	035.5	35.50
115.0	000.8157	0502.4	038.7	340.7	000.3500	-0115.0	034.9	35.69

116.0	000.7810	0510.8	038.7	339.9	000.3500	-0113.0	034.5	35.87
117.0	000.7471	0517.7	038.6	339.0	000.3500	-0102.3	034.1	36.02
118.0	000.7139	0522.8	038.4	338.0	000.3500	-0087.5	033.8	36.13
119.0	000.6815	0525.3	038.1	336.8	000.3500	-0071.7	033.6	36.21
120.0	000.6498	0523.8	037.7	335.4	000.3500	-0046.6	033.5	36.21
121.0	000.6283	0518.9	037.2	334.0	000.3500	-0034.9	033.6	36.19
122.0	000.6071	0512.3	036.6	332.6	000.3500	-0024.4	033.7	36.14
123.0	000.5863	0505.7	036.0	331.2	000.3500	-0008.7	033.9	36.07
124.0	000.5659	0499.4	035.5	329.8	000.3500	-0004.5	034.2	35.98
125.0	000.5458	0492.3	034.9	328.5	000.3500	0001.5	034.4	35.88
126.0	000.5261	0485.8	034.3	327.2	000.3500	0006.1	034.7	35.77
127.0	000.5068	0482.1	033.8	326.0	000.3500	0011.1	035.0	35.68
128.0	000.4878	0482.8	033.5	325.0	000.3500	0014.9	035.1	35.65
129.0	000.4692	0486.3	033.4	324.0	000.3500	0016.3	035.1	35.64
130.0	000.4509	0491.4	033.2	323.0	000.3500	0015.4	035.1	35.65
131.0	000.4344	0497.4	033.2	322.1	000.3500	0014.3	035.0	35.67
132.0	000.4183	0502.5	033.1	321.1	000.3500	0017.2	035.0	35.67
133.0	000.4025	0506.0	032.9	320.1	000.3500	0026.1	035.1	35.63
134.0	000.3869	0508.6	032.7	319.2	000.3500	0037.3	035.3	37.12
135.0	000.3717	0508.5	032.3	318.2	000.3500	0046.2	035.6	38.74
136.0	000.3568	0501.4	031.7	317.3	000.3500	0048.8	036.2	38.95
137.0	000.3421	0488.1	030.9	316.4	000.3500	0042.9	037.0	37.58
138.0	000.3278	0475.9	030.1	315.7	000.3500	0042.9	037.8	37.29
139.0	000.3138	0470.9	029.6	314.9	000.3500	0031.3	038.3	34.79
140.0	000.3001	0473.3	029.4	314.2	000.3500	0019.6	038.6	34.42
141.0	000.2948	0480.2	029.5	313.4	000.3500	0011.2	038.6	34.44
142.0	000.2896	0489.3	029.7	312.6	000.3500	0011.2	038.4	34.47
143.0	000.2844	0498.6	029.9	311.8	000.3500	0005.1	038.3	34.51
144.0	000.2792	0506.9	030.0	311.0	000.3500	-0000.9	038.3	34.52
145.0	000.2741	0513.6	030.1	310.2	000.3500	-0008.2	038.3	34.51
146.0	000.2691	0518.7	030.2	309.4	000.3500	-0016.3	038.4	34.48
147.0	000.2641	0523.8	030.2	308.6	000.3500	-0016.3	038.6	34.44
148.0	000.2591	0531.6	030.4	307.8	000.3500	-0024.7	038.6	34.42
149.0	000.2542	0539.9	030.5	307.0	000.3500	-0034.5	038.7	34.40
150.0	000.2493	0547.3	030.6	306.2	000.3500	-0047.8	038.8	34.36
151.0	000.2493	0555.6	030.9	305.3	000.3500	-0064.3	038.8	34.37
152.0	000.2493	0567.3	031.2	304.4	000.3500	-0080.9	038.7	34.40
153.0	000.2493	0581.0	031.7	303.4	000.3500	-0094.7	038.6	34.43
154.0	000.2493	0592.4	032.0	302.4	000.3500	-0105.6	038.6	34.43
155.0	000.2493	0597.9	032.2	301.6	000.3500	-0105.6	038.7	34.38
156.0	000.2493	0599.7	032.2	300.8	000.3500	-0114.9	039.0	34.29
157.0	000.2493	0603.3	032.3	300.1	000.3500	-0121.4	039.3	34.21
158.0	000.2493	0612.0	032.6	299.2	000.3443	-0121.9	039.4	34.09
159.0	000.2493	0622.0	032.9	298.3	000.3380	-0113.6	039.5	33.96
160.0	000.2493	0629.1	033.1	297.4	000.3324	-0098.2	039.8	33.82
161.0	000.2493	0632.8	033.2	296.7	000.3275	-0098.2	040.1	33.65
162.0	000.2493	0635.2	033.3	296.1	000.3231	-0077.4	040.5	33.48
163.0	000.2493	0638.4	033.4	295.4	000.3187	-0056.4	040.8	33.31
164.0	000.2493	0642.3	033.5	294.8	000.3143	-0056.4	041.2	33.14
165.0	000.2493	0647.1	033.6	294.1	000.3099	-0035.7	041.5	32.97
166.0	000.2493	0653.6	033.8	293.4	000.3053	-0016.4	041.9	32.80
167.0	000.2493	0660.9	034.0	292.7	000.3006	-0016.4	042.2	32.63
168.0	000.2493	0667.6	034.2	292.0	000.2962	0002.1	042.6	32.46
169.0	000.2493	0672.8	034.4	291.4	000.2923	0020.9	043.0	32.28
170.0	000.2493	0677.1	034.5	290.8	000.2888	0020.9	043.5	32.10
171.0	000.2542	0681.0	034.8	290.1	000.2842	0040.1	043.9	33.83
172.0	000.2591	0686.1	035.1	289.4	000.2796	0061.2	044.3	36.73
173.0	000.2641	0690.5	035.4	288.7	000.2753	0061.2	044.7	36.51
174.0	000.2691	0692.6	035.7	288.1	000.2717	0083.9	045.1	38.60
175.0	000.2741	0693.4	035.8	287.5	000.2685	0083.9	045.6	38.37
176.0	000.2792	0693.9	036.0	287.0	000.2655	0109.1	046.2	40.18
177.0	000.2844	0695.9	036.2	286.5	000.2624	0109.1	046.7	39.92
178.0	000.2896	0697.7	036.5	286.0	000.2595	0135.1	047.2	41.16
179.0	000.2948	0699.7	036.7	285.5	000.2566	0135.1	047.8	40.90
180.0	000.3001	0699.5	036.8	285.2	000.2544	0163.8	048.3	42.12

181.0	000.3138	0698.9	037.2	284.5	000.2507	0163.8	048.9	41.85
182.0	000.3278	0698.4	037.6	283.9	000.2473	0196.7	049.4	43.13
183.0	000.3421	0698.8	038.0	283.3	000.2438	0233.9	050.0	44.50
184.0	000.3568	0701.1	038.5	282.7	000.2402	0233.9	050.6	44.19
185.0	000.3717	0702.5	038.9	282.1	000.2370	0274.0	051.2	45.31
186.0	000.3869	0702.5	039.2	281.6	000.2343	0274.0	051.8	45.00
187.0	000.4025	0701.4	039.6	281.2	000.2319	0315.8	052.5	46.05
188.0	000.4183	0699.9	039.9	280.9	000.2298	0315.8	053.2	45.74
189.0	000.4344	0700.6	040.2	280.4	000.2275	0353.5	053.9	46.65
190.0	000.4509	0702.7	040.6	280.0	000.2251	0353.5	054.6	46.33
191.0	000.4692	0705.4	041.1	279.5	000.2272	0353.5	055.3	46.10
192.0	000.4878	0706.4	041.5	279.2	000.2289	0385.5	056.0	46.79
193.0	000.5068	0706.1	041.8	278.9	000.2303	0385.5	056.8	46.53
194.0	000.5261	0704.6	042.1	278.6	000.2314	0385.5	057.5	46.27
195.0	000.5458	0703.0	042.4	278.4	000.2324	0410.6	058.3	46.64
196.0	000.5659	0702.2	042.7	278.2	000.2333	0410.6	059.1	46.37
197.0	000.5863	0703.9	043.1	278.0	000.2345	0410.6	059.9	46.10

2nd Adjacent Overlap Area

KMRO

BLED20030919ABW
Latitude: 34-24-47 N
Longitude: 119-11-10 W
ERP: 7.10 kW
Channel: 212
Frequency: 90.3 MHz
AMSL Height: 868.0 m
Horiz. Pattern: Omni
Vert. Pattern: No

KMRO.A

BPED20060208AMD
Latitude: 34-24-40 N
Longitude: 119-10-28 W
ERP: 10.70 kW
Channel: 212
Frequency: 90.3 MHz
AMSL Height: 784.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: FCC

KSBX

Latitude: 34-27-57 N
Longitude: 119-40-37 W
ERP: 0.35 kW
Channel: 210
Frequency: 89.9 MHz
AMSL Height: 661.0 m
Horiz. Pattern: Directional
Vert. Pattern: No

U/D Based Area of Contour Overlap with
KMRO Application = 710 Sq Meters, Population = 0
KMRO License = 620 Sq Meters, Population = 0

KMRO License 60 dBu

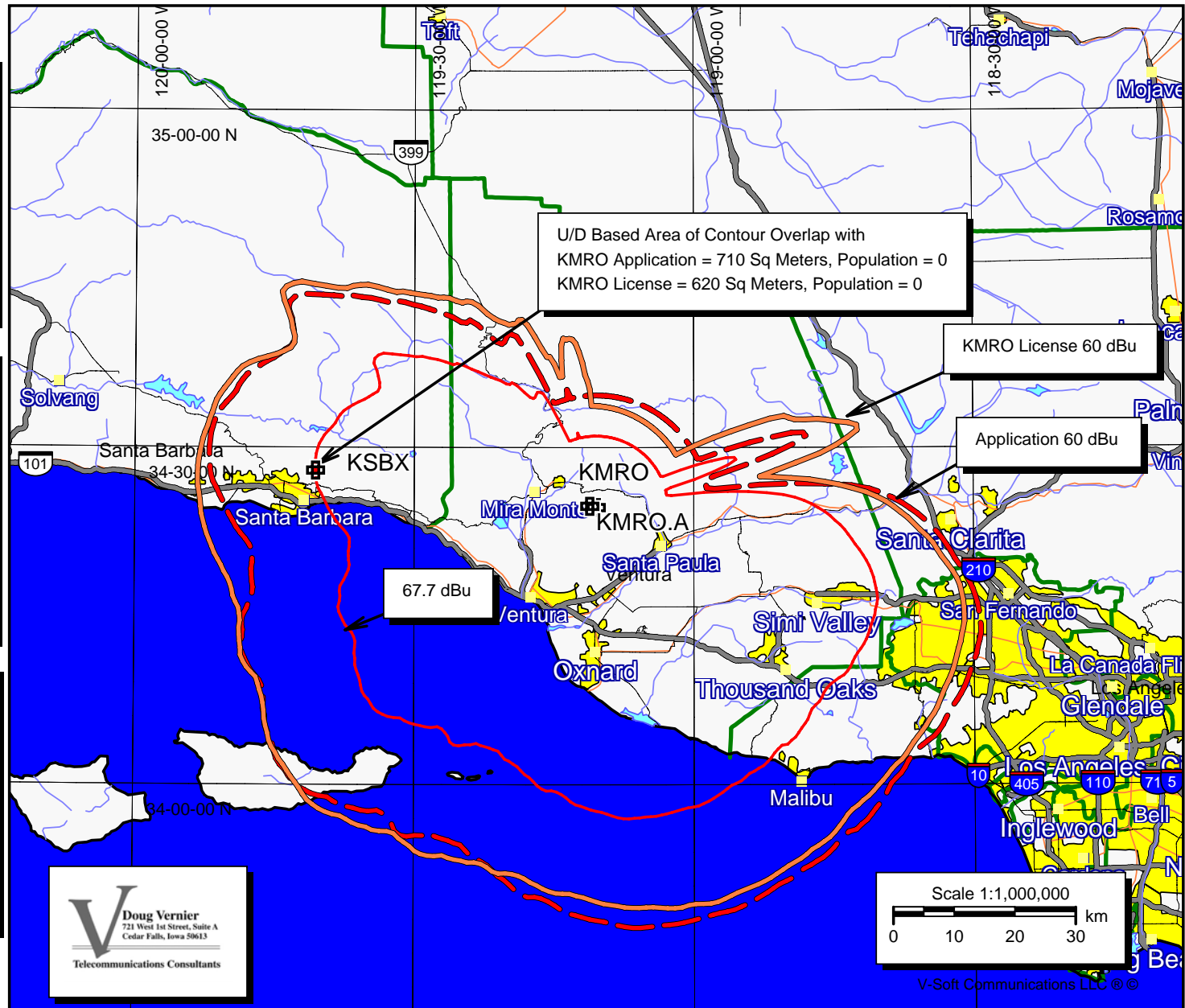
Application 60 dBu

67.7 dBu

V Doug Vernier
721 West 1st Street, Suite A
Cedar Falls, Iowa 50613
Telecommunications Consultants

Scale 1:1,000,000
0 10 20 30 km

V-Soft Communications LLC ©



2nd Adjacent Overlap Area - Population Centroids Shown

KMRO

BLED20030919ABW
 Latitude: 34-24-47 N
 Longitude: 119-11-10 W
 ERP: 7.10 kW
 Channel: 212
 Frequency: 90.3 MHz
 AMSL Height: 868.0 m
 Horiz. Pattern: Omni
 Vert. Pattern: No
 Population: 1,405,866
 Land Area: 5,166.2 sq. km

KMRO.A

BPED20060208AMD
 Latitude: 34-24-40 N
 Longitude: 119-10-28 W
 ERP: 10.70 kW
 Channel: 212
 Frequency: 90.3 MHz
 AMSL Height: 784.0 m
 Horiz. Pattern: Omni
 Vert. Pattern: No
 Prop Model: None
 60 dBu Pop: 1,501,567
 Land Area 4,972.9. sq. km

KSBX

Latitude: 34-27-57 N
 Longitude: 119-40-37 W
 ERP: 0.35 kW
 Channel: 210
 Frequency: 89.9 MHz
 AMSL Height: 661.0 m
 Horiz. Pattern: Directional

U/D Based Area of Contour Overlap with
 KMRO Application = 0.71 Sq KM, Population = 0
 KMRO License = 0.62 Sq KM, Population = 0
 % KMRO.A 60 dBu=0.014%
 % KMRO (LI) 60 dBu= 0.012%

KMRO (AP) 67.7 dBu

KMRO (LI) 68.3 dBu

KSBX 107.7 dBu

KSBX 100 dBu
 Area = 4.14 Sq km
 Population = 65
 % KMRO.A 60 dBu=0.083%
 % KMRO (LI) 60 dBu= 0.08%

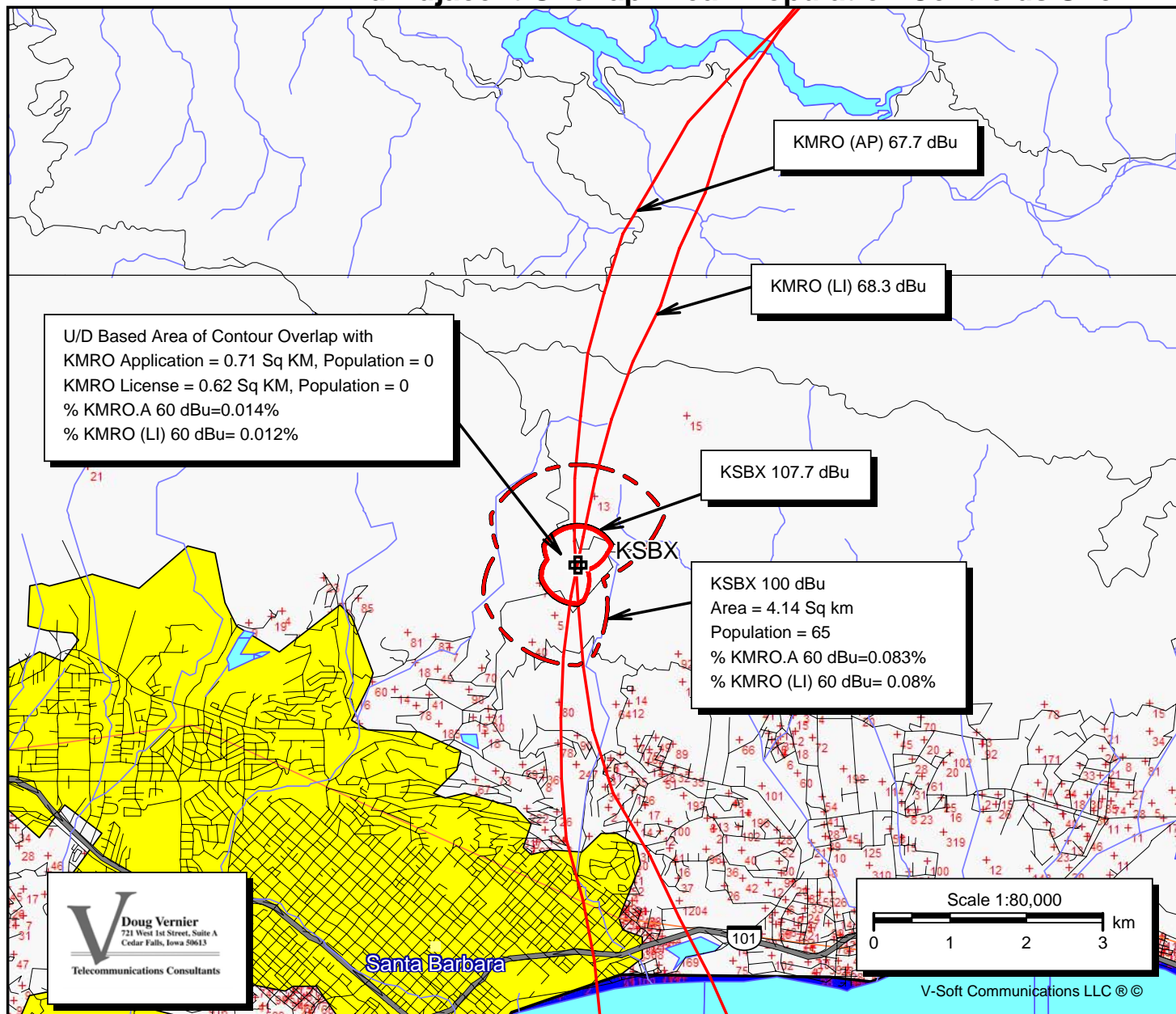
Doug Vernier
 721 West 1st Street, Suite A
 Cedar Falls, Iowa 50613
 Telecommunications Consultants

Santa Barbara

Scale 1:80,000

0 1 2 3 km

V-Soft Communications LLC ©



Contour.out

N. Lat. = 34 27 57 W. Lng. = 119 40 37
HAAT and Distance to Contour - FCC Method - 30 Arc Sec.

KSBX Proposed 100 dBu

Azi.	AV EL	HAAT	ERP kW	dBk	Field	100-F1
000	689.2	-28.2	0.3500	-4.56	1.000	1.31
010	705.6	-44.6	0.3500	-4.56	1.000	1.31
020	670.2	-9.2	0.3500	-4.56	1.000	1.31
030	649.2	11.8	0.3500	-4.56	1.000	1.31
040	743.1	-82.1	0.3500	-4.56	1.000	1.31
050	688.8	-27.8	0.3500	-4.56	1.000	1.31
060	749.2	-88.2	0.2780	-5.56	0.891	1.17
070	753.6	-92.6	0.1995	-7.00	0.755	0.99
080	741.7	-80.7	0.1259	-9.00	0.600	0.79
090	845.6	-184.6	0.0794	-11.00	0.476	0.63
100	399.2	261.8	0.0501	-13.00	0.378	0.50
110	172.1	488.9	0.0316	-15.00	0.301	0.39
120	57.3	603.7	0.0292	-15.35	0.289	0.38
130	29.4	631.6	0.0462	-13.35	0.363	0.48
140	21.7	639.3	0.0733	-11.35	0.458	0.60
150	21.2	639.8	0.1161	-9.35	0.576	0.76
160	17.8	643.2	0.1840	-7.35	0.725	0.95
170	12.4	648.6	0.2917	-5.35	0.913	1.20
180	9.3	651.7	0.3500	-4.56	1.000	1.31
190	13.1	647.9	0.3500	-4.56	1.000	1.31
200	23.9	637.1	0.3500	-4.56	1.000	1.31
210	36.9	624.1	0.3500	-4.56	1.000	1.31
220	39.8	621.2	0.3500	-4.56	1.000	1.31
230	52.9	608.1	0.3500	-4.56	1.000	1.31
240	53.3	607.7	0.3500	-4.56	1.000	1.31
250	59.7	601.3	0.3500	-4.56	1.000	1.31
260	86.2	574.8	0.3145	-5.02	0.948	1.24
270	157.9	503.1	0.2729	-5.64	0.883	1.16
280	307.5	353.5	0.2251	-6.48	0.802	1.05
290	620.9	40.1	0.2835	-5.47	0.900	1.18
300	782.4	-121.4	0.3500	-4.56	1.000	1.31
310	669.2	-8.2	0.3500	-4.56	1.000	1.31
320	634.9	26.1	0.3500	-4.56	1.000	1.31
330	665.5	-4.5	0.3500	-4.56	1.000	1.31
340	774.0	-113.0	0.3500	-4.56	1.000	1.31
350	749.2	-88.2	0.3500	-4.56	1.000	1.31

Ave El= 380.66 M HAAT= 280.34 M AMSL= 661