

## Channel Study

REFERENCE		CH# 211A - 90.1 MHz, Pwr= 0.85 kW, HAAT= 214.2 M, COR= 1516 M						DISPLAY DATES			
34 02 13.0 N.		Average Protected F(50-50)= 25.6 km						DATA 04-20-15			
116 58 07.0 W.		Omni-directional						SEARCH 05-04-15			
CH	CALL	TYPE	ANT	AZI.	DIST	LAT.	Pwr(kW)	INT(km)	PRO(km)	*IN*	*OUT*
CITY		STATE		<--	FILE #	LNG.	HAAT(M)	COR(M)	LICENSEE	(Overlap in km)	
211B	KLRD!	LIC	DC	67.6	7.54	34 03 46.0	0.600	136.0	58.4	-138.2	-84.5
Yucaipa			CA	247.6	BLED20110919AEY	116 53 35.0	1045	2754	Educational Media Foundati		
211D	K211DK!	LIC	DV	246.3	66.10	33 47 48.0	0.010	5.7	0.6	11.8	-54.3*<
Santa Ana			CA	65.9	BLFT20020108ACP	117 37 22.0	720	1173	The Association For Commun		
211D	KSAK!	CP	CX	270.4	85.00	34 02 18.0	0.002	12.8	4.0	23.8	-38.4*<
Walnut			CA	89.8	BPED20150302ABS	117 53 21.0	175	377	Mount San Antonio Communit		
211D	KSAK!	LIC	CX	270.4	85.00	34 02 18.0	0.002	12.7	4.0	23.9	-38.4*<
Walnut			CA	89.8	BLED20131022ANG	117 53 21.0	165	367	Mount San Antonio Communit		
211D	KBPK!	LIC	CN	258.8	98.68	33 51 35.0	0.019	11.9	3.7	38.0	-25.0*<
Buena Park			CA	78.2	BLED1466	118 00 53.0	3	54	Buena Park School District		
209A	KSGN	LIC	CX	301.5	34.26	34 11 50.9	2.750	3.1	40.4	-14.9*<	-8.2*<
Riverside			CA	121.3	BLED20110211AAL	117 17 09.2	98	987	Good News Radio		
212D	K212GC!	LIC	DV	279.8	70.44	34 08 33.0	0.010	8.7	5.9	14.0	-6.9*<
Pomona			CA	99.4	BLFT20130521AEO	117 43 16.8	39	686	Ondas De Vida, Inc.		
265A	KAEH<	CP	CX	188.2	10.02	33 56 51.0	5.300	0.0	0.0	9.5R	0.52M
Beaumont			CA	8.2	BPH20110929AJI	116 59 03.0	38	890	Casa Media Partners, Llc		
211D	K211EY!	LIC	DC	297.7	120.91	34 32 08.0	0.010	3.7	1.0	69.7	1.7
Palmdale			CA	117.0	BLFT20050727AIA	118 08 11.0	208	1183	Faith Communications Corpo		
214B	KPFK	LIC	CX	282.2	103.58	34 13 45.0	110.000	15.9	97.3	40.2	4.2
Los Angeles			CA	101.6	BMLED20080410AAA	118 04 03.0	863	1762	Pacifica Foundation, Inc.		
265A	KAEH<	LIC	CN	189.9	14.51	33 54 29.0	1.500	0.0	0.0	9.5R	5.0M
Beaumont			CA	9.9	BLH20000330ACC	116 59 45.0	146	892	Casa Media Partners, Llc		
212C	XHITZ<	OPE	C	182.2	170.16	32 30 27.0	100.000	97.9	92.0	164.5R	5.7M
Tijuana			BN	2.1		117 02 16.0	185	300			
210B1	1420564	APP	DCX	156.0	87.88	33 18 46.0	0.360	23.5	15.5	21.3	6.9
Ramona			CA	336.3	BNPED20071022AEZ	116 35 02.0	708	1911	Activist San Diego		
209D	K209AK!	LIC	DHN	111.4	34.92	33 55 20.0	0.009	0.0	1.6	7.6	31.5
Palm Springs			CA	291.6	BLFT19861110TD	116 37 00.0	-211	535	Good News Radio		
210B	KCRW	LIC	CN	274.4	131.66	34 07 08.0	6.900	73.1	49.3	10.2	10.2
Santa Monica			CA	93.6	BLED19810325AF	118 23 30.0	338	537	Santa Monica Community Col		
212A	KVLA-FM	LIC	DCX	110.6	73.52	33 48 08.0	0.340	26.1	17.5	21.1	16.1
Coachella			CA	291.0	BLED20041108AAK	116 13 30.0	175	540	Southern California Public		
212L1	KLIE-LP	CP		244.9	97.07	33 39 49.7	0.100			55.5R	41.6M
Fountain Valley,			CA	64.4	BMPL20140911ABI	117 55 02.6	23	40	International Crusade Of T		
212D	K212EK!	LIC	C	335.4	70.16	34 36 40.0	0.010	19.1	12.5	26.2	20.2
Victorville			CA	155.2	BLFT20021219ABI	117 17 19.0	491	1399	Calvary Chapel Of Twin Fal		
210D	K210DL!	LIC	V	335.4	70.16	34 36 40.0	0.010	18.7	12.3	26.5	20.3
Apple Valley			CA	155.2	BMLFT20120719AAU	117 17 19.0	472	1380	Calvary Chapel Of Twin Fal		
213D	K213AB!	LIC	DC	110.7	52.94	33 52 04.0	0.010	0.1	6.3	26.4	44.9
Palm Springs			CA	291.0	BLFT20081107AEL	116 25 59.0	175	489	Educational Media Foundati		
212D	K212FA!	LIC	DC	281.3	102.69	34 12 48.0	0.010	6.2	3.3	48.9	28.3
Temple City			CA	100.7	BLFT20080725ADI	118 03 41.0	893	1669	Educational Media Foundati		
213A	KNLM	LIC	CX	79.4	72.36	34 09 15.0	3.500	2.6	28.2	60.0	42.6
Yucca Valley			CA	259.8	BLED20140206AJW	116 11 50.0	75	956	Advance Ministries, Inc. D		
212C2	1289751	APP	CX	355.2	90.48	34 50 59.1	8.000	37.3	24.3	43.4	52.5
Barstow			CA	175.2	BNPED20071019AXE	117 03 03.9	200	967	San Bernardino Community C		

208B1 KXRD Victorville	LIC DCX CA	335.3 70.36 155.1 BMLD20071218ADD	34 36 44.0 1.250 117 17 27.0 430	1.0 25.1 44.3 43.5 1342 Educational Media Foundati
210D K210EN! Joshua Tree	LIC DV CA	84.9 57.94 265.2 BLFT20140324ADA	34 04 54.0 0.010 116 20 36.0 405	1.1 0.6 47.1 43.8 1520 Calvary Chapel Of Twin Fal
208D K208AM! Newport Beach	LIC DHN CA	242.9 99.96 62.4 BLFT19831104MC	33 37 29.0 0.075 117 55 44.0 32	0.4 4.9 50.9 93.0 50 South Orange County Commun
211B KTQX Bakersfield	LIC CN CA	317.2 216.17 136.3 BLED19961031KA	35 27 11.0 0.570 118 35 25.0 1104	122.3 50.7 57.3 67.1 2326 Radio Bilingue, Inc.
264A KATJ-FM« George	LIC CN CA	335.4 70.10 155.2 BLH19921106KA	34 36 38.0 0.260 117 17 18.0 472	0.0 0.0 9.5R 60.6M 1384 Edb Vv License Llc
212B KMRO Camarillo	LIC DCX CA	282.2 207.60 101.0 BLED20130719CYV	34 24 41.0 10.500 119 10 34.0 324	94.7 64.2 65.4 72.4 825 The Association For Commun
06Z XETV« Tijuana	GR CN BN	182.3 170.95 2.3 BPFS	32 30 02.0 99.250 117 02 31.0 258	32.8 6.5 39.3R 131.7M 409

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Terrain database is NGDC 30 SEC, R= 73.215 qualifying spacings or FCC minimum spacings in KM, M= Margin in KM  
Contour distances are on direct line to and from reference station. Reference Zone= - Zone 1A, Co to 3rd adjacent.  
All separation margins (if shown) include rounding. Call signs with exclamation marks need not be protected.  
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, \_= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)  
"\*"affixed to 'IN' or 'OUT' values = site inside restricted contour.  
« = Station meets FCC minimum distance spacing for its class.  
< = Contour Overlap  
Reference station has protected zone issue: Mexico

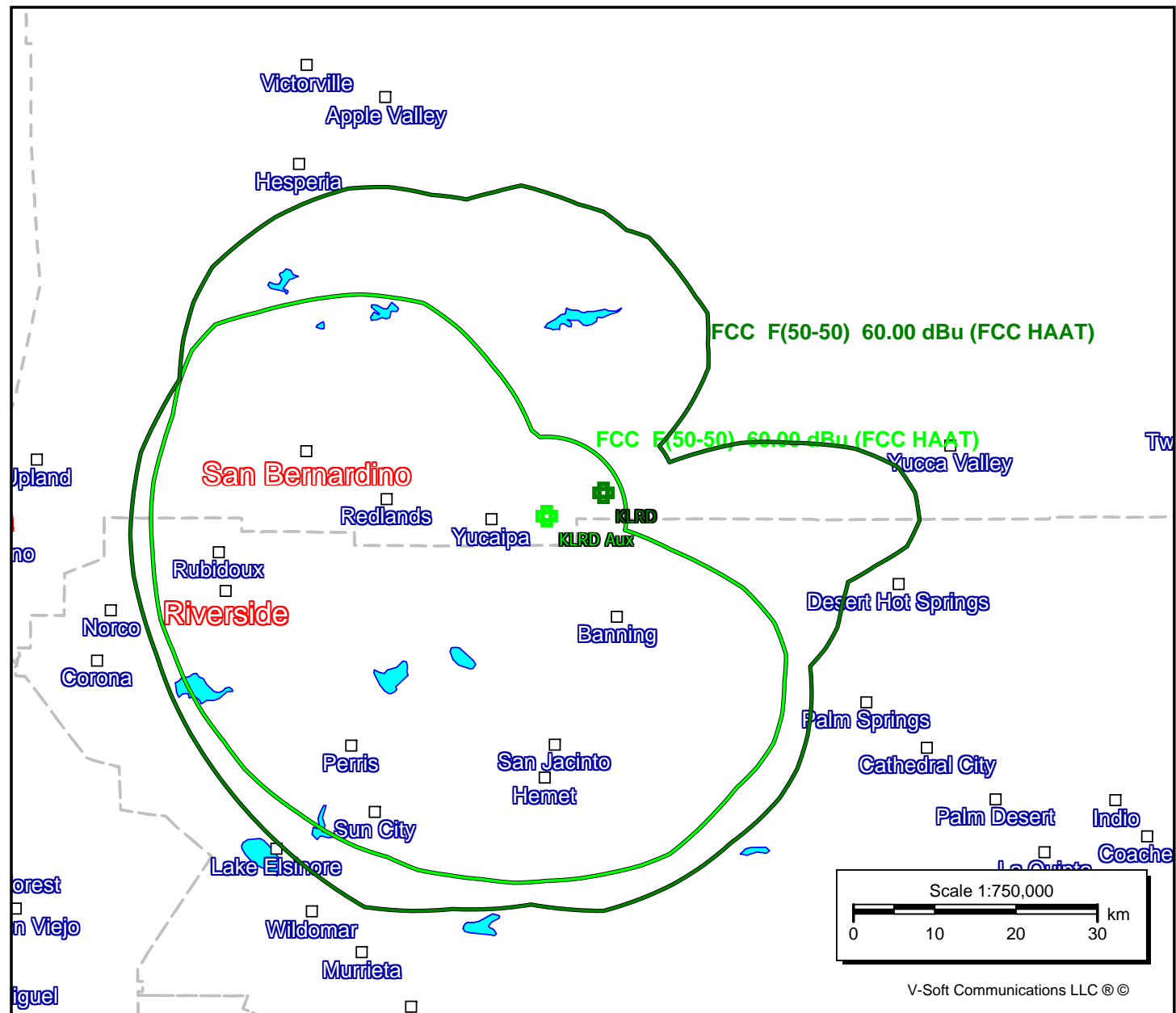
## Exhibit 18A

- KLRD (211)
- KLRD Aux (211)

**KLRD**  
BLED20110919AEY  
Latitude: 34-03-46 N  
Longitude: 116-53-35 W  
ERP: 0.60 kW  
Channel: 211  
Frequency: 90.1 MHz  
AMSL Height: 2754.0 m  
Horiz. Pattern: Directional  
Vert. Pattern: No  
Prop Model: None

### KLRD Aux

Latitude: 34-02-13 N  
Longitude: 116-58-07 W  
ERP: 0.85 kW  
Channel: 211  
Frequency: 90.1 MHz  
AMSL Height: 1516.0 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: None



**Compliance with C.F.R. 74.1204**

The proposed FM Auxiliary Antenna is located within the protected 60dBu contour of second adjacent channel station KSGN, channel 209A, Riverside, CA.

In order to demonstrate no interference to second and third adjacent facilities, the difference in dBu between the two facilities must not exceed 40dBu.

The proposed ERP for KLRD-Aux:	850 watts
The proposed COR for KLRD-Aux:	49 meters
KSGN F(50/50) contour at proposed site:	63.4 dBu
The F(50/10) contour of proposed KLRD-Aux	103.4 dBu
The predicted distance to KLRD-Aux interference contour:	1382.6 meters

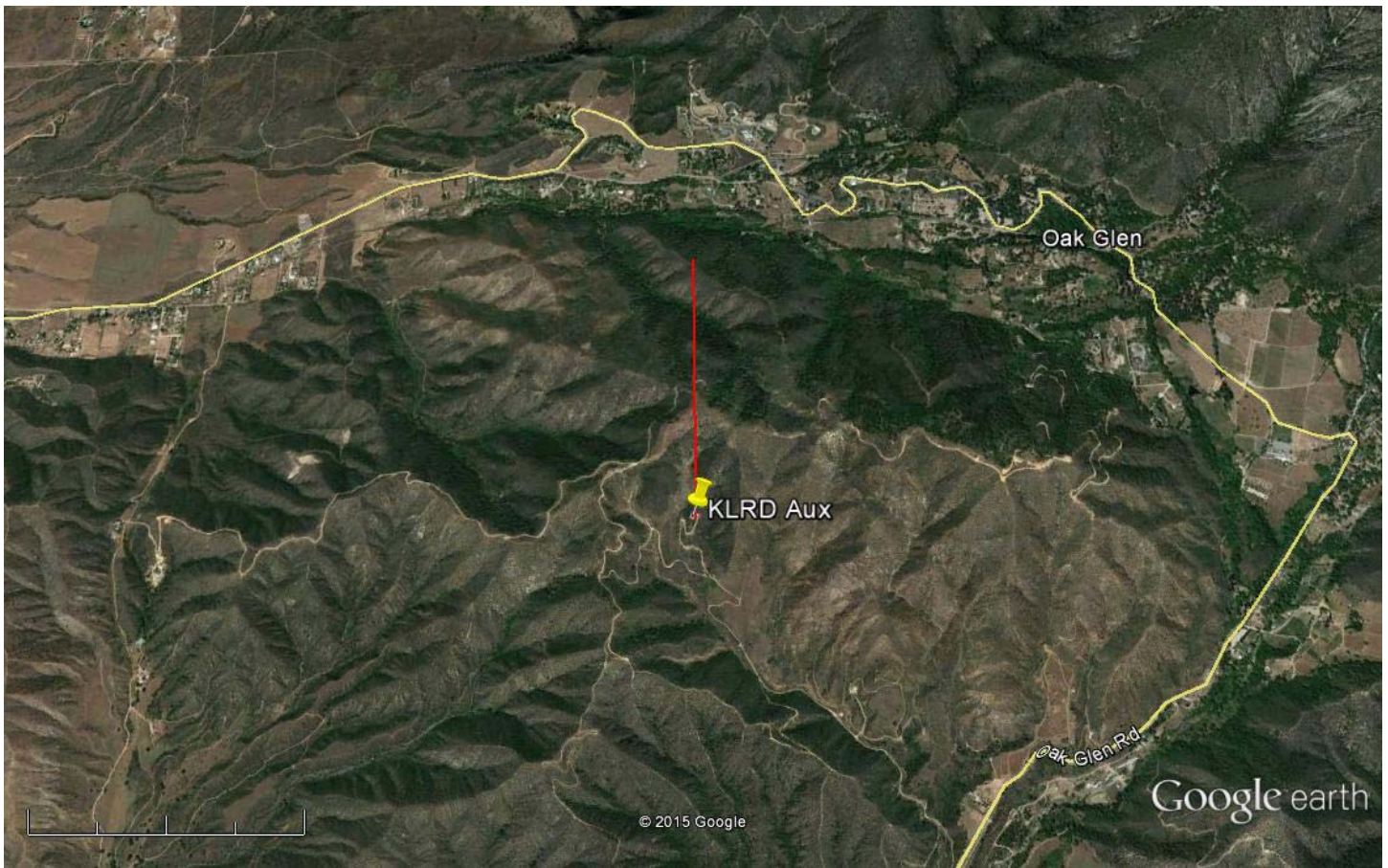
As can be seen in Exhibit 18B-3, there are no regularly occupied structures at the base of the tower and there are no structures located within the 1382.6 meter contour distance of the 103.4dbu interfering contour.

EMF is including this exhibit as assurance that during the necessary times of operation of this proposed auxiliary facility no interference to KSGN will occur.

EXHIBIT 18B-2  
74.1204(d) Showing  
KLRD  
Yucaipa, CA

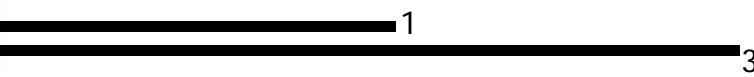
ERP (kw): 0.85  
Height of Antenna above Ground (m): 49  
Translator's IX Contour: 103.4  
Antenna Type: ERI LPX-1E

<u>Depression Angle from Horizon</u>	<u>Antenna Relative Field</u>	<u>ERP (kw) from the Antenna RF</u>	<u>Dist. To IX Contour (m)</u>	<u>Height IX Contour Above Ground (m)</u>
0	1.000	0.8500	1382.6411	49.000
5	0.993	0.8381	1372.9626	-70.662
10	0.974	0.8064	1346.6924	-184.851
15	0.941	0.7527	1301.0653	-287.740
20	0.892	0.6763	1233.3159	-372.819
25	0.843	0.6041	1165.5664	-443.590
30	0.780	0.5171	1078.4601	-490.230
35	0.709	0.4273	980.2925	-513.273
40	0.633	0.3406	875.2118	-513.575
45	0.554	0.2609	765.9832	-492.632
50	0.473	0.1902	653.9892	-451.985
55	0.394	0.1320	544.7606	-397.242
60	0.317	0.0854	438.2972	-330.577
65	0.245	0.0510	338.7471	-258.009
70	0.181	0.0278	250.2580	-186.166
75	0.124	0.0131	171.4475	-116.606
80	0.077	0.0050	106.4634	-55.846
85	0.041	0.0014	56.6883	-7.473
90	0.016	0.0002	22.1223	26.878



Google earth

miles  
km



Yellow Pin Marker

NAD 27

34 02' 13.0" N

116 58' 07.0" W

Red Marker: 1383m at zero degrees true north