

# **ENGINEERING EXHIBIT**

## **APPLICATION FOR CONSTRUCTION PERMIT**

prepared for

**Radio Disney Sacramento, LLC**

KIID(AM) Sacramento, California

Facility ID 65482

1470 kHz 5 kW-Day/1 kW-Night DA-2 U

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FCC Form 301, Section III-A

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Exhibit 12  
**COMPREHENSIVE ENGINEERING EXHIBIT**  
prepared for  
**Radio Disney Sacramento, LLC**  
KIID(AM) Sacramento, California  
Facility ID 65482  
1470 kHz 5 kW-Day/1 kW-Night DA-2 U

**Nature of the Proposal**

Radio Disney Sacramento, LLC (“*Radio Disney*”) is the licensee of Standard Broadcast Radio Station KIID, 1470 kHz, Sacramento, California (Facility ID 65482). KIID is presently licensed as a Class B station with authority to operate with 5 kW directional day and 1 kW directional night utilizing a three-tower directional antenna system. The instant application proposes to reduce the tower height in order to eliminate the marking and lighting requirements as permitted by the FAA. The towers were recently surveyed in preparation for a Method of Moments proof and as a result the center coordinates of the array have changed by one second Longitude. There is no physical change in the geographic location from that of the licensed facility.

The proposed antenna patterns are essentially the same as the licensed day and night patterns except that, in addition to the shorter towers, minor adjustments have been made to both antenna patterns in order to reduce contour overlap and comply with the “ratchet rule”.

The station is currently operating under a Special Temporary Authority (STA), file number BESTA-20100114AAS, due to the loss of the two eastern most towers. The proposed construction will replace all 3 towers with slightly shorter towers in the same physical location.

The proposed operation is based on the standard pattern radiation and the licensed operation is based on the modified standard (augmented) pattern using the licensed (measured) RMS. The KIID daytime pattern RMS and augmentations were the result of the conversion of the station’s maximum expected operating values (MEOV’s) from the 1940’s to the standard pattern notation. The conventionally calculated standard pattern results in a slightly higher RMS and corresponding larger radiation pattern than the licensed augmented pattern. Without the slight modification to the daytime pattern as shown herein, the same antenna parameters would result in a prohibited increase in contour overlap to several stations. Consequently, minor adjustments to the daytime licensed pattern are proposed to avoid an increase in contour overlap area. The details of the contour area

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reduction are provided below. The proposed operation is expected to utilize the Moment Method Proof of Performance therefore the use of measured pattern and augmentations will not be required.

The instant proposal complies with Section 73.24(g). According to 2000 US Census data there are 671,188 persons within the proposed daytime 25 mV/m contour and 260,441 people within the nighttime 25 mV/m contour. There are 2 or fewer people living within the 1000 mV/m daytime or nighttime contours. Thus the proposed operation clearly meets the requirements of Section 73.24(g) of the Rules. The proposed day and night antenna patterns are essentially the same as the licensed antenna patterns that KIID has operated with from this site for many years. Therefore, the applicant respectfully requests that the blanketing interference mitigation conditions not be placed on the Construction Permit as the proposed changes will not significantly alter the licensed blanketing interference contours.

### **Antenna System Description**

The proposed KIID facility will utilize the existing tower locations and three new tower structures. No changes to the existing ground system are proposed. The FAA has been notified of the proposed reduction in tower height and removal of the tower lighting. The FAA has issued Determinations of No Hazard<sup>1</sup> for all three tower structures which *do not* require marking and lighting. New Antenna Structure Registrations have been filed for the two new towers that replace the towers that fell. The remaining tower retains its structure registration number and the structure registration system has been modified to reflect the change in height. The ASR numbers for all three towers are shown in the Tech Box portion of FCC Form 301.

### **Nearby AM stations**

There are two AM stations within 3.2 km of the licensed site as shown in the table below. These stations have been operating from these adjacent transmitter sites for many years. The shortening of each KIID tower and the minor pattern adjustment is a de minimis change with respect

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<sup>1</sup> The FAA Study Numbers for the three proposed replacement towers are 2010-AWP-4506-OE, 2010-AWP-4507-OE, 2010-AWP-4508-OE.

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to these nearby stations and would have no measurable effect on their operation. Therefore, it is respectfully requested that the Construction Permit not be conditioned on measurements of and/or modifications to these stations as suggested by §73.1692(d).

Freq Status	Call Sign	City/State File Number	Fac. ID	Latitude Longitude	Power Antenna	Distance Bearing
=====	=====	=====	=====	=====	=====	=====
1240 kHz Lic	KRJY U	SACRAMENTO, CA BL-	29297	38 35 17 121 28 05	1.0 ND1	0.61 227.26
1620 kHz Lic	KSMH D	WEST SACRAMENTO, CA BML-20040618ABB	87036	38 35 17 121 28 05	10.0 ND2	0.61 227.26
1620 kHz Lic	KSMH N	WEST SACRAMENTO, CA BML-20040618ABB	87036	38 35 17 121 28 05	1.0 ND2	0.61 227.26

### Daytime Allocations and Coverage Considerations

The proposed daytime antenna pattern is provided graphically as **Exhibit 12-Figure 1** and in table form in **Exhibit 12-Table I**. The distance to the pertinent contours is provided as **Exhibit 12-Table II**. As shown in **Exhibit 12-Figures 3** and **4**, there are four facilities that have existing contour overlap with the licensed facilities of KIID (using conductivity data from the most recent KIID full proof completed in 1978.) Due to the existing contour overlap, measured conductivities were also used for KRRS (1460 kHz Santa Rosa, CA)<sup>2</sup>. For the convenience of FCC staff, the field intensity measurement graphs and analyzed ground conductivities from KIID and KRRS filings are included as attachments to this application.

Contour overlap also exists to KYOS (1480 kHz, Merced, CA) and non-directional station KOBO (1450 kHz, Yuba City, CA). The most recent full proof of performance for KYOS (BL-19821130BE) was completed in 1982 however a copy of this proof could not be located after a thorough search of the FCC's engineering files. Using M3 conductivities results in a reduction in the existing contour overlap area. It is not expected that measured conductivities for KYOS would alter that conclusion. The KOBO licensed and authorized facilities are both non-directional operations and no measurements were found on file with the FCC.

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<sup>2</sup> The attached ground wave field strength graphs were filed July 18, 1975 in response to a June 5, 1975 telegram from FCC staff. The May 1, 1975 proof of performance referenced in this letter could not be located in the FCC's reference room after several searches. Thus, the measured conductivities used in the instant application are taken from the attached partial proof filing.

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The following table demonstrates the proposed facility reduces the total contour overlap area to these facilities. These overlap areas were calculated using 360 radials for each station and consider only the land area, excluding contour overlap over water.

Station	KIID(Lic) Contour overlap (sq. km)	KIID(Prop) Contour overlap (sq. km)	Net contour overlap <i>reduction</i> (sq. km)
Interference caused to: KRRS 1460 kHz, Santa Rosa, CA	2149	1998	151
Interference received from: KRRS 1460 kHz, Santa Rosa, CA	2241	2138	103
Interference caused to: KYOS 1480 kHz, Merced, CA	1762	1740	22
Interference received from: KYOS 1480 kHz, Merced, CA	2882	2851	31
Interference to/from: KOBO(Lic) 1450 kHz, Yuba City, CA	25	21	4
Interference to/from: KOBO(CP) 1450 kHz, Yuba City, CA	11	7	4

As shown in **Exhibit 12-Figure 2**, the daytime 5 mV/m contour covers 94.2% of the community of license as required under §73.187.

### **Nighttime Coverage and Allocations Considerations**

The proposed nighttime antenna pattern is provided graphically as **Exhibit 12-Figure 6** and in table form in **Exhibit 12-Table IV**. The calculated nighttime interference free signal level for KIID is 9.6 mV/m as demonstrated in **Exhibit 12-Table V**. **Exhibit 12-Figure 7** shows that the 9.6 mV/m contour encompasses 83.2% of the community of Sacramento. The distance to contours used in the nighttime allocation and blanketing interference study are included as **Exhibit 12-Table VI**.

The proposed antenna parameters have been modified slightly from the licensed operating parameters in order to comply with the Commission's 10% field reduction in Footnote 1 of Section 73.182(q), commonly referred to as the "ratchet rule." The results of a night study showing the required protection to each pertinent station as well as the proposed radiation and the resulting difference (margin) are shown in **Exhibit 12-Table VII**. Therein, a positive value in the margin

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column indicates the proposed KIID nighttime radiation *does not* exceed the maximum radiation limit to a given station (including any applicable “ratchet rule” reduction). Additional information on the night study can be provided upon request. It is believed that the proposed nighttime operation complies with all domestic and international allocations rules and policies.

### **Environmental Considerations**

The instant application specifies replacing the three original towers with three new, shorter, towers in the exact same location. The proposed towers will not be marked or lighted. An environmental study in accordance with Section 1.1306 of the Commission’s Rules is not believed to be necessary for the replacement of existing towers at an existing antenna site or for the elimination of tower lights. Therefore, only the impact of human exposure to radiofrequency energy is evaluated herein as required by the Commission Rules.

The proposed operation at this site was evaluated for human exposure to radiofrequency energy using the procedures outlined in the Commission’s OET Bulletin No. 65 (“OET-65”). OET-65 describes a means of determining whether a proposed facility exceeds the radiofrequency exposure guidelines adopted in Section 1.1470. Under present Commission policy, a facility may be presumed to comply with the limits specified in Section 1.1470 if it satisfies the exposure criteria set forth in OET-65. Based upon that methodology, and as demonstrated in the following, the proposed transmitting system will comply with those guidelines.

At KIID’s frequency, the effective electrical height of the towers are 0.28 wavelengths (99.5 degrees). KIID is proposing to continue operation at 5 kW day and 1 kW night with antenna patterns essentially identical to the currently licensed facility. Although the maximum 5 kW of power will be distributed among the three towers of the array, a conservative, *worst-case* assumption of 5 kW at each tower base was employed for this analysis. Using the Table 2, Supplement A, Section 1 of OET-65, it was determined that the minimum fence distance from a 5 kW AM station to achieve compliance with the FCC exposure limits is 2 meters.

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According to information provided by technical representatives of the applicant, each tower is currently enclosed by a locked, chain link fence topped with barbed wire and the minimum distance from the fence to the closest point on any of the towers greatly exceeds 2 meters. Therefore the existing fences will be sufficient to limit exposure of the general public at the proposed operation. RF Exposure warning signs will continue to be posted as required.

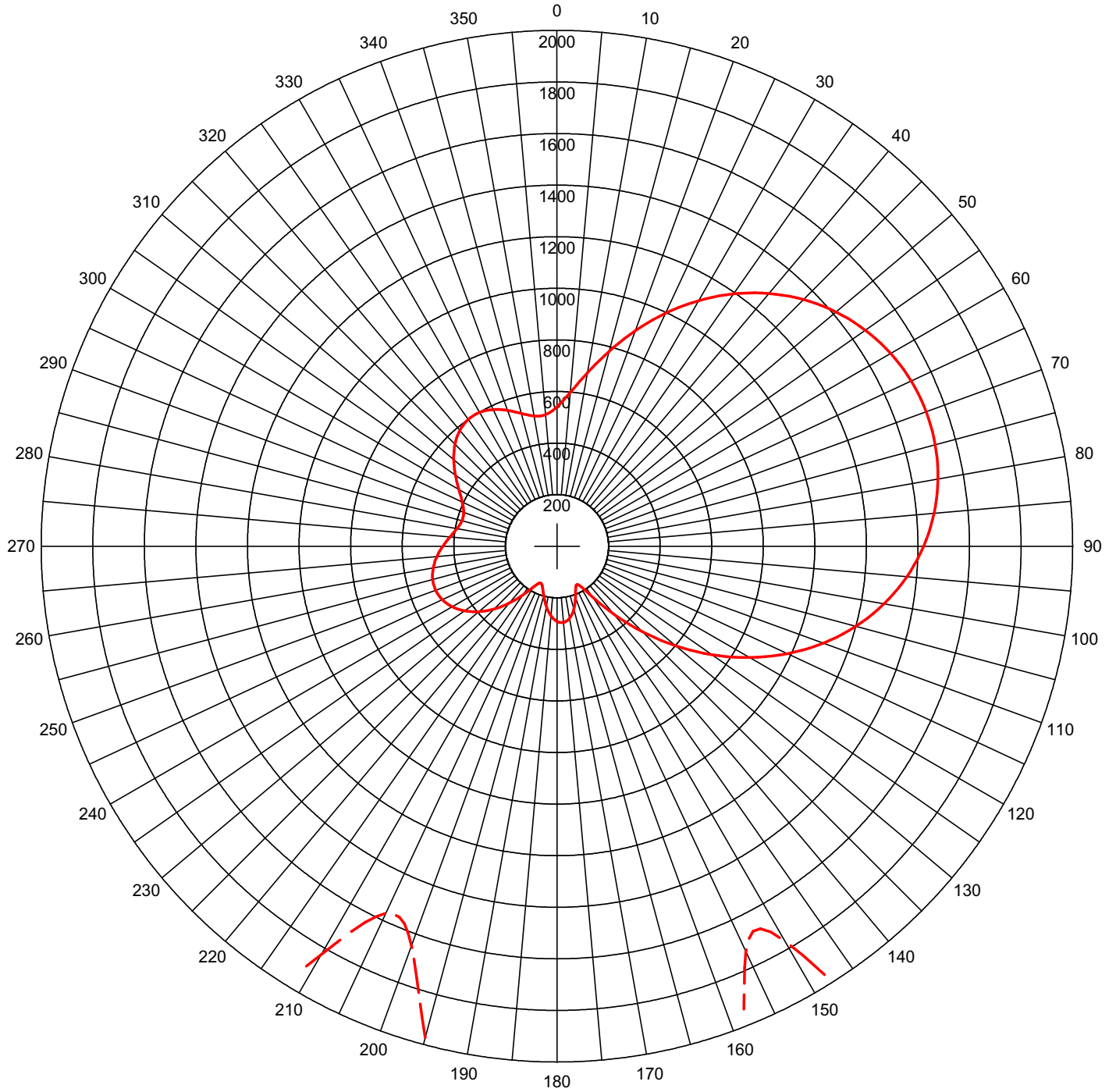
**Safety of Tower Workers and the General Public**

As stated above, existing fences insure excessive levels of RF energy will not be caused at accessible areas near the tower. With respect to worker safety, a site exposure policy will continue to be employed protecting maintenance workers from excessive exposure when work must be performed in the vicinity of or on the tower. Such protective measures include, but are not limited to, restriction of access to areas where levels in excess of the guidelines may be expected, power reduction, or the complete shutdown of facilities when work or inspections must be performed in areas where the exposure guidelines would otherwise be exceeded. Further, no worker is permitted to climb an energized tower. On-site RF exposure measurements may also be undertaken to more specifically establish the bounds of safe working areas

Based on the preceding, it is believed that the instant proposal may be categorically excluded from environmental processing under Section 1.1306 of the Rules.

# AM Directional Pattern

True North



Theo RMS: 758.168 mV/m@1km  
 Std RMS: 796.778 mV/m@1km  
 Q: 31.838 mV/m@1km

Standard Horizontal Plane Pattern

— Pattern (mV/m @ 1km)  
 - - - Pattern X10

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Switch	TL Switch	A (deg)	B (deg)	C (deg)	D (deg)
1	1.000	0.0	0.0	0.0	99.5	0	0	0.0	0.0	0.0	0.0
2	0.650	-137.0	90.6	63.5	99.5	0	0	0.0	0.0	0.0	0.0
3	0.600	173.0	90.6	256.7	99.5	0	0	0.0	0.0	0.0	0.0

## EXHIBIT 12 - FIGURE 1 DAYTIME RADIATION PATTERN PLOT

prepared June 2010 for  
**Radio Disney Sacramento, LLC**  
 KIID(AM) Sacramento, California  
 Facility ID 65482  
 1470 kHz 5 kW-Day/1 kW-Night DA-2 U

Cavell, Mertz & Associates, Inc.  
 Manassas, Virginia



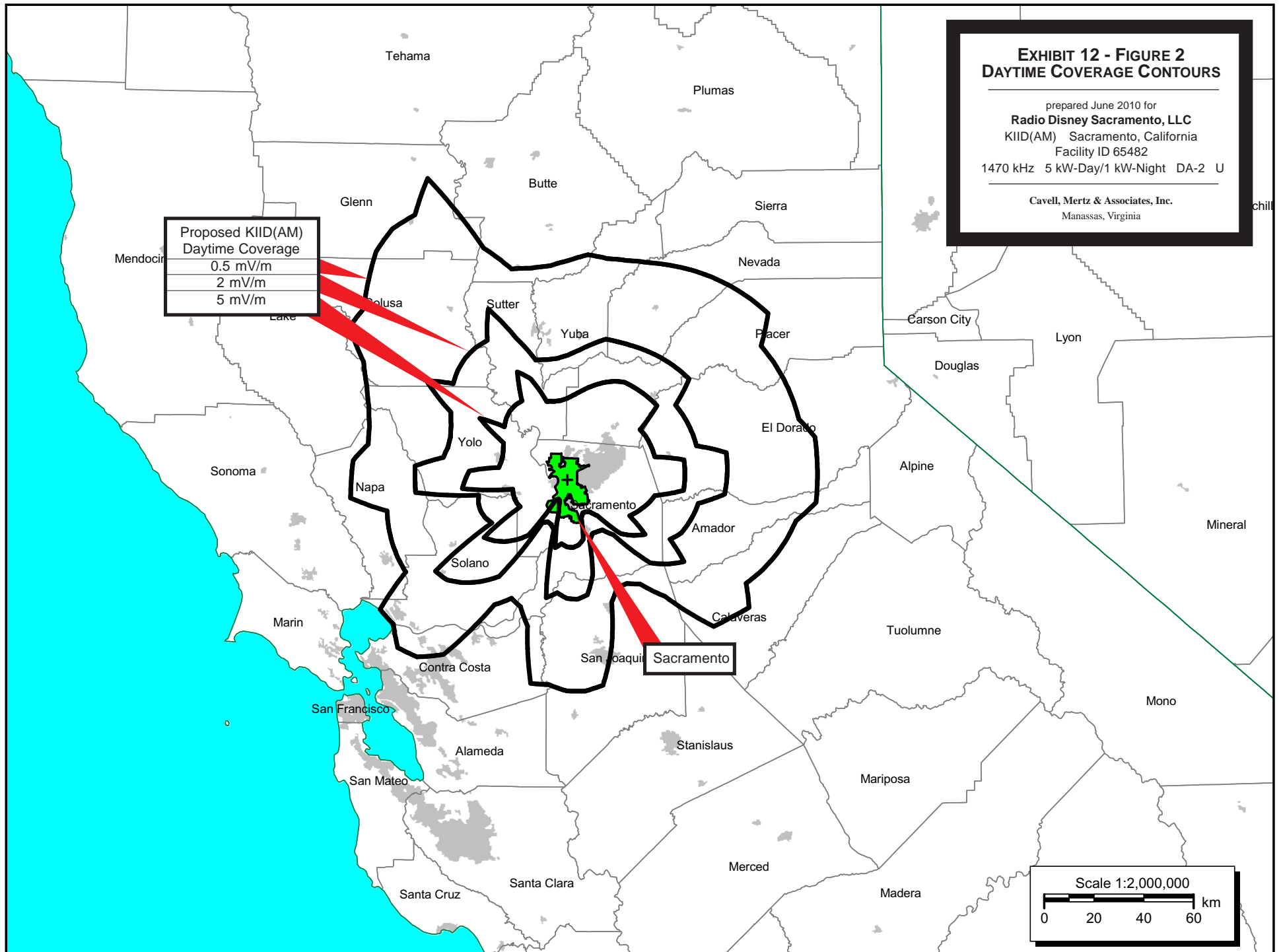
**EXHIBIT 12 - FIGURE 2**  
**DAYTIME COVERAGE CONTOURS**

prepared June 2010 for  
**Radio Disney Sacramento, LLC**  
KIID(AM) Sacramento, California  
Facility ID 65482  
1470 kHz 5 kW-Day/1 kW-Night DA-2 U

Cavell, Mertz & Associates, Inc.  
Manassas, Virginia

Proposed KIID(AM)  
Daytime Coverage  
0.5 mV/m  
2 mV/m  
5 mV/m

Scale 1:2,000,000  
0 20 40 60 km



# **EXHIBIT 12 - FIGURE 3** **DAYTIME ALLOCATION STUDY** **CO-CHANNEL**

prepared June 2010 for  
**Radio Disney Sacramento, LLC**  
 KIID(AM) Sacramento, California  
 Facility ID 65482  
 1470 kHz 5 kW-Day/1 kW-Night DA-2 U

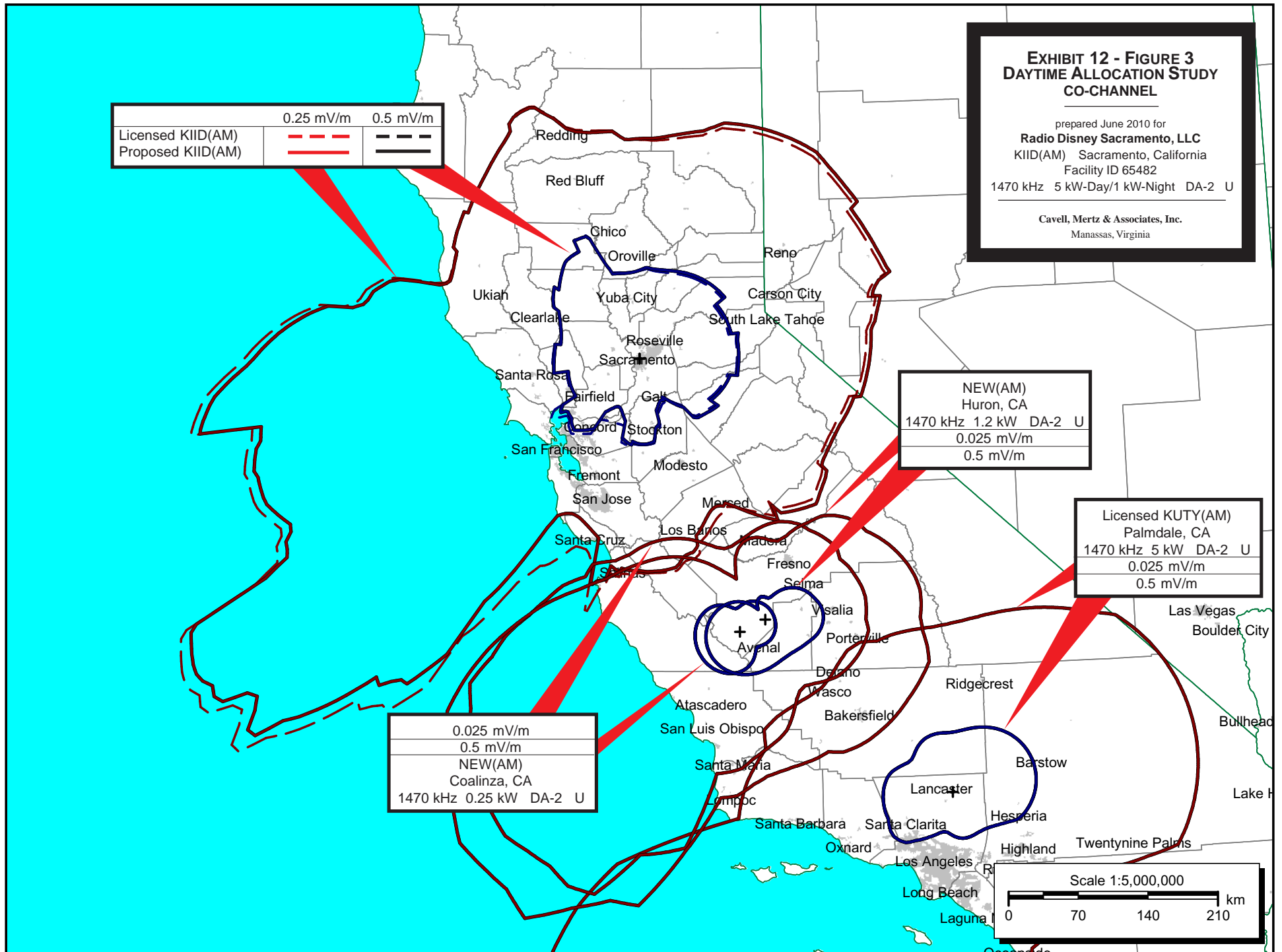
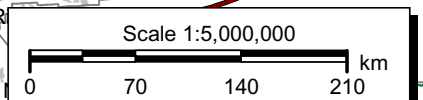
Cavell, Mertz & Associates, Inc.  
 Manassas, Virginia

	0.25 mV/m	0.5 mV/m
Licensed KIID(AM)		
Proposed KIID(AM)		

NEW(AM)
Huron, CA
1470 kHz 1.2 kW DA-2 U
0.025 mV/m
0.5 mV/m

Licensed KUTY(AM)
Palmdale, CA
1470 kHz 5 kW DA-2 U
0.025 mV/m
0.5 mV/m

0.025 mV/m
0.5 mV/m
NEW(AM)
Coalinga, CA
1470 kHz 0.25 kW DA-2 U



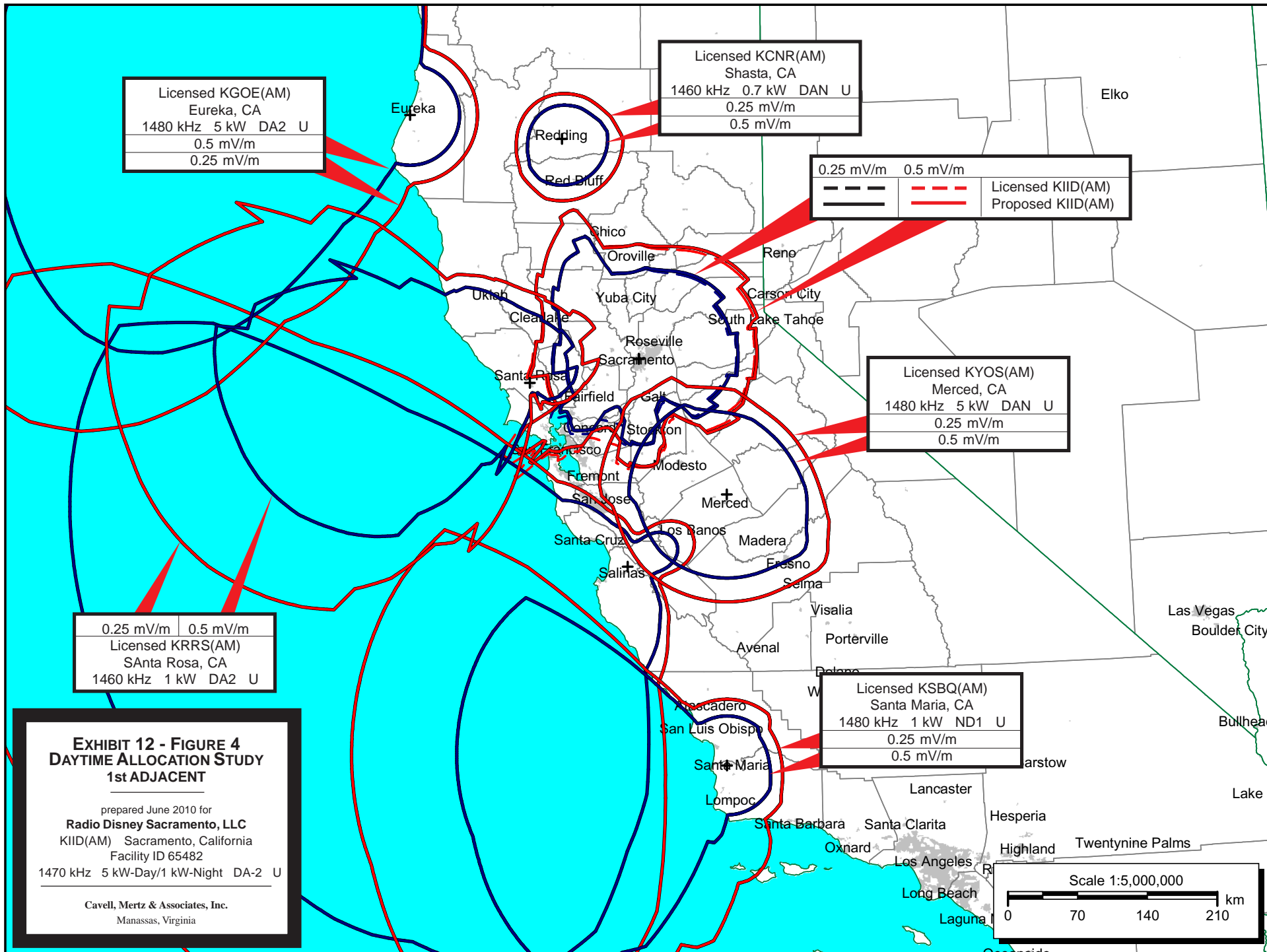




Exhibit 12 - Table I  
**PROPOSED DIRECTIONAL ANTENNA PARAMETERS**  
**STANDARD RADIATION PATTERN DATA**

prepared for  
**Radio Disney Sacramento, LLC**  
 KIID(AM) Sacramento, California  
 Facility ID 65482  
 1470 kHz 5 kW-Day/1 kW-Night DA-2 U

<b>Tower Number</b>	<b>Field Ratio</b>	<b>Phase (deg)</b>	<b>Spacing (deg)</b>	<b>Bearing (deg)</b>	<b>Height (deg)</b>
<b>1</b>	1.000	0.0	0.0	0.0	99.5
<b>2</b>	0.650	-137.0	90.6	63.5	99.5
<b>3</b>	0.600	173.0	90.6	256.7	99.5

<b>Input Power (kW)</b>	<b>Loop Loss (Ohms)</b>	<b>Theoretical</b>		<b>Q Factor (mV/m)</b>	<b>Standard RMS (mV/m)</b>
		<b>RMS (mV/m)</b>	<b>RSS (mV/m)</b>		
5.0	1.00	758.2	1274	31.84	796.8

<b>Azimuth (deg)</b>	<b>Field (mV/m)</b>	<b>Azimuth (deg)</b>	<b>Field (mV/m)</b>	<b>Azimuth (deg)</b>	<b>Field (mV/m)</b>	<b>Azimuth (deg)</b>	<b>Field (mV/m)</b>
0	540.1	90	1,422.2	180	291.6	270	442.3
5	598.9	95	1,362.1	185	270.2	275	415.8
10	682.6	100	1,288.0	190	236.4	280	393.4
15	782.1	105	1,200.0	195	197.3	285	381.5
20	888.9	110	1,098.9	200	165.0	290	385.0
25	996.3	115	986.1	205	157.1	295	405.2
30	1,099.2	120	863.3	210	182.9	300	439.0
35	1,194.3	125	733.6	215	231.3	305	480.3
40	1,279.1	130	600.4	220	287.9	310	522.3
45	1,352.1	135	468.8	225	344.1	315	559.0
50	1,412.6	140	345.4	230	394.8	320	585.8
55	1,460.1	145	241.1	235	437.1	325	599.5
60	1,494.5	150	176.7	240	469.3	330	598.8
65	1,515.8	155	173.4	245	490.4	335	584.5
70	1,523.9	160	210.7	250	500.1	340	560.2
75	1,518.8	165	252.9	255	498.7	345	532.8
80	1,500.3	170	283.4	260	487.2	350	512.6
85	1,468.2	175	296.6	265	467.5	355	511.9

Exhibit 12 - Table II  
**PROPOSED DAYTIME DISTANCE TO CONTOURS**

prepared for  
**Radio Disney Sacramento, LLC**  
 KIID(AM) Sacramento, California  
 Facility ID 65482  
 1470 kHz 5 kW-Day/1 kW-Night DA-2 U

Azimuth (deg)	Field at 1 km (mV/m)	Ground Conductivity Data Region Conductivity Data in mS/m followed by distance in km to end of region. * - Indicates Measurement Data	Distance To Contours						
			1000 mV/m (km)	25.0 mV/m (km)	5.0 mV/m (km)	2.0 mV/m (km)	0.5 mV/m (km)	0.25 mV/m (km)	0.025 mV/m (km)
0	540	8*-7.2, 15*-28.2, 15-109.6, 8-160.9, 4-343.8 8-443, 4-1217.1, 1-1312.5	0.50	12.82	32.8	50.0	88.0	113.9	219
5	599	15-87.8, 8-160.2, 4-400.9, 8-428.7, 4-669.8 8-817.3, 4-1161.8, 1-1203.6, 2-1300	0.58	13.74	34.5	52.3	90.7	112.7	220
10	683	15-71.1, 8-169.2, 4-739, 15-790.6, 4-1022.3 8-1064.6, 4-1177.7, 2-1200.8, 1-1300	0.65	14.98	36.7	55.3	90.2	113.3	226
15	782	15-60.1, 8-180.8, 4-792.7, 15-998.7, 4-1205.4 1-1300	0.75	16.35	39.2	58.5	91.2	115.6	234
20	889	6*-3.2, 10*-13.8, 15*-27.4, 15-52.5, 8-304.2 4-909.1, 8-1006.4, 1-1061, 4-1246.6, 1-1300	0.77	17.72	41.6	59.0	93.0	118.5	249
25	996	6*-3.2, 10*-13.8, 15*-27.4, 15-47.8, 8-402.2 4-914.2, 8-964.1, 1-1011.4, 4-1303	0.86	18.99	43.8	59.6	95.3	121.9	256
30	1099	6*-3.2, 10*-13.8, 15*-27.4, 15-44.5, 8-420.5 4-1272.6, 8-1300	0.93	20.14	45.3	60.5	97.6	125.1	262
35	1194	6*-3.2, 10*-13.8, 15*-27.4, 15-41.9, 8-442.4 4-687.1, 8-756.8, 4-1213.5, 8-1258.4, 15-1300	1.01	21.14	45.7	61.3	99.7	128.0	267
40	1279	6*-3.2, 10*-13.8, 15*-27.4, 15-39.9, 8-467.7 4-717.8, 8-811, 4-1300	1.07	22.00	46.0	62.1	101.5	130.5	271
45	1352	15-38.3, 8-229.3, 4-363.4, 8-491.4, 4-725.2 8-856.6, 4-1189.5, 8-1300	1.26	22.71	46.3	62.7	103.1	132.6	270
50	1413	15-37.2, 8-205, 4-405.2, 8-494.3, 4-667.6 8-1041.1, 4-1150.3, 2-1236.8, 8-1300	1.31	23.27	46.6	63.3	104.4	134.4	269
55	1460	10*-14.5, 7*-30.1, 15-36.3, 8-194.1, 4-655	1.30	16.06	35.3	52.6	94.2	124.5	260

**Cavell, Mertz & Associates, Inc.**

Exhibit 12 - Table II

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**PROPOSED DAYTIME DISTANCE TO CONTOURS**

**Radio Disney Sacramento, LLC**

KIID(AM) Sacramento, California

1470 kHz 5 kW-Day/1 kW-Night DA-2 U

Azimuth (deg)	Field at 1 km (mV/m)	Ground Conductivity Data Region Conductivity Data in mS/m followed by distance in km to end of region. * - Indicates Measurement Data	Distance To Contours						
			1000 mV/m (km)	25.0 mV/m (km)	5.0 mV/m (km)	2.0 mV/m (km)	0.5 mV/m (km)	0.25 mV/m (km)	0.025 mV/m (km)
		8-1023.1, 2-1187.4, 8-1300							
60	1495	10*-14.5, 7*-30.1, 15-35.8, 8-190.9, 4-654.7 8-1036.3, 15-1089.8, 2-1157.1, 15-1231.5, 8-1300	1.33	16.25	35.8	53.0	95.0	125.5	261
65	1516	10*-14.5, 7*-30.1, 15-35.6, 8-196.2, 4-660.2 8-772.7, 15-859.7, 8-997.1, 15-1300	1.35	16.37	36.0	53.2	95.5	126.1	263
70	1524	10*-14.5, 7*-30.1, 15-35.6, 8-215, 4-673.7 8-749.9, 15-858.7, 4-908.8, 2-947, 8-949.9 15-1014.4, 8-1103.2, 15-1292.1, 2-1300	1.35	16.41	36.1	53.3	95.7	126.4	265
75	1519	10*-14.5, 7*-30.1, 15-35.9, 8-96.9, 2-148.8 8-225.3, 4-686, 15-866.5, 4-893.5, 15-1076 8-1138.4, 15-1171.5, 8-1234, 2-1300	1.35	16.38	36.1	53.4	95.6	115.5	243
80	1500	15-36.5, 8-91.1, 2-159.4, 4-166.3, 8-214.6 4-627, 15-835.4, 8-908.2, 15-949.9, 4-1028.6 8-1190.3, 2-1300	1.39	24.07	47.2	64.4	100.4	119.7	242
85	1468	15-37, 8-91.3, 2-161.6, 4-621, 15-783.1 8-876.8, 15-1175.7, 8-1220.8, 2-1300	1.36	23.79	47.1	64.1	100.1	119.2	234
90	1422	15-37.8, 8-92.3, 2-166.9, 4-624, 15-776.2 8-947.6, 15-1021.6, 4-1205, 2-1300	1.32	23.36	46.9	63.7	99.9	118.7	232
95	1362	15-39, 8-94, 2-174, 4-622.6, 15-728.7 30-863.3, 8-898.7, 15-1158, 4-1300	1.27	22.80	46.6	63.1	99.8	118.3	229
100	1288	3*-2.7, 5*-6.4, 6*-20.9, 8*-31.4, 15-40.6 8-97.3, 2-183.2, 4-601.9, 15-738.4, 8-757.5 30-798.7, 8-863.1, 15-946.4, 8-1166.4, 15-1300	0.91	13.87	35.5	53.2	92.8	112.7	219
105	1200	3*-2.7, 5*-6.4, 6*-20.9, 8*-31.4, 15-42.6 8-102.5, 2-198.8, 4-572.5, 15-732.9, 8-899.3	0.86	13.39	34.0	52.4	90.8	112.9	215

**Cavell, Mertz & Associates, Inc.**

Exhibit 12 - Table II

(Page 3 of 7)

**PROPOSED DAYTIME DISTANCE TO CONTOURS**

**Radio Disney Sacramento, LLC**

KIID(AM) Sacramento, California

1470 kHz 5 kW-Day/1 kW-Night DA-2 U

Azimuth (deg)	Field at 1 km (mV/m)	Ground Conductivity Data Region Conductivity Data in mS/m followed by distance in km to end of region. * - Indicates Measurement Data	Distance To Contours						
			1000 mV/m (km)	25.0 mV/m (km)	5.0 mV/m (km)	2.0 mV/m (km)	0.5 mV/m (km)	0.25 mV/m (km)	0.025 mV/m (km)
		15-1025.3, 8-1079.8, 15-1118.5, 8-1308.9							
110	1099	3*-2.7, 5*-6.4, 6*-20.9, 8*-31.4, 15-45.3 8-109, 2-220.9, 4-514.5, 8-579.2, 15-740.5 8-1002.9, 15-1185, 4-1287.2, 8-1300	0.80	12.80	32.2	51.4	88.5	113.4	211
115	986	3*-2.7, 5*-6.4, 6*-20.9, 8*-31.4, 15-48.7 8-120.7, 2-252.5, 4-476.5, 8-626, 15-779.5 8-1241.2, 4-1300	0.73	12.10	30.5	50.2	85.7	112.2	210
120	863	3*-2.7, 5*-6.4, 6*-20.9, 8*-31.4, 15-53 8-144.4, 2-305.3, 4-520.9, 8-679.8, 15-878.1 8-974.2, 15-993.2, 8-1042.2, 15-1177.7, 8-1443	0.66	11.27	28.7	47.5	82.6	107.8	212
125	734	15-58.7, 8-185.8, 2-370.4, 4-519.3, 8-759.1 15-1214.6, 8-1298, 4-1300	0.70	15.70	38.0	57.0	88.9	112.6	224
130	600	15-67.1, 8-246.6, 2-407.9, 4-496.2, 8-765.2 15-948.1, 8-1048.7, 15-1120.2, 4-1300	0.58	13.77	34.5	52.4	85.5	107.5	227
135	469	15-82.1, 8-278.6, 2-392.8, 4-483.6, 8-701.7 2-731.3, 15-904.4, 8-944.9, 4-1104.6, 5000-1133.4 4-1300	0.45	11.62	30.5	47.0	83.0	102.8	215
140	345	3*-6.1, 5*-11.3, 8*-30.1, 15-241.6, 8-281.4 15-335.3, 2-337.7, 8-373.7, 2-374.3, 4-478.9 8-597.1, 4-839.8, 3-982, 5000-1300	0.29	4.75	18.8	28.7	60.8	83.9	208
145	241	3*-6.1, 5*-11.3, 8*-30.1, 15-218.8, 8-304 15-354.3, 8-439.2, 4-483.2, 8-537.1, 4-600.5 8-801.1, 3-1300	0.21	3.84	15.6	24.5	50.9	71.3	184
150	177	7*-3.5, 8*-11.3, 10*-32.2, 15-203.1, 8-337.2 15-413.4, 8-464.9, 4-529, 8-572.9, 15-613.2	0.17	4.67	14.7	23.9	47.9	66.2	169

**Cavell, Mertz & Associates, Inc.**



Exhibit 12 - Table II

(Page 4 of 7)

**PROPOSED DAYTIME DISTANCE TO CONTOURS**

**Radio Disney Sacramento, LLC**

KIID(AM) Sacramento, California

1470 kHz 5 kW-Day/1 kW-Night DA-2 U

Azimuth (deg)	Field at 1 km (mV/m)	Ground Conductivity Data Region Conductivity Data in mS/m followed by distance in km to end of region. * - Indicates Measurement Data	Distance To Contours						
			1000 mV/m (km)	25.0 mV/m (km)	5.0 mV/m (km)	2.0 mV/m (km)	0.5 mV/m (km)	0.25 mV/m (km)	0.025 mV/m (km)
		5000-1300							
155	173	7*-3.5, 8*-11.3, 10*-32.2, 15-193.9, 8-437.3 4-510, 8-551.3, 5000-1300	0.17	4.60	14.6	23.7	47.5	65.7	168
160	211	7*-3.5, 8*-11.3, 10*-32.2, 15-186.8, 8-393 4-491.1, 5000-1300	0.20	5.31	16.3	26.0	52.2	71.6	180
165	253	10*-16.1, 20*-32.2, 15-176.2, 8-473.5, 5000-1300	0.24	6.54	24.8	39.6	69.2	89.9	200
170	283	10*-16.1, 20*-32.2, 30-63.5, 15-147.8, 8-385.4 5000-444.6, 8-454.7, 5000-1300	0.27	7.10	26.5	46.8	83.6	105.2	211
175	297	10*-16.1, 20*-32.2, 30-64, 15-140.5, 8-334.2 5000-1300	0.29	7.33	27.2	48.1	85.1	107.0	212
180	292	10*-16.1, 20*-32.2, 30-64.4, 15-139.9, 8-213.5 15-261.4, 8-297.5, 5000-1300	0.28	7.24	27.0	47.6	84.7	106.5	211
185	270	10*-16.1, 20*-32.2, 30-64.1, 15-141.5, 8-193.7 15-266.6, 5000-1300	0.26	6.86	25.8	45.5	82.5	103.7	209
190	236	15-0.3, 30-64.3, 15-139.8, 8-190.9, 5000-222 15-239.3, 5000-1300	0.23	8.00	27.6	48.1	83.0	103.2	224
195	197	4*-3.2, 3*-7.2, 4*-9.7, 7*-21.7, 10*-32.2 30-64.9, 15-136.1, 30-137, 8-188.2, 5000-1300	0.18	3.39	13.1	20.7	60.8	81.3	179
200	165	4*-3.2, 3*-7.2, 4*-9.7, 7*-21.7, 10*-32.2 30-66.1, 15-129.8, 30-135.2, 8-188, 5000-1300	0.15	3.22	8.9	19.0	54.3	76.3	171
205	157	4*-3.2, 3*-7.2, 4*-9.7, 7*-21.7, 10*-32.2 30-67.9, 15-124.8, 30-133.8, 5000-134.4, 8-179.1 5000-1300	0.15	3.22	8.7	18.6	52.6	75.5	170
210	183	4*-3.2, 3*-7.2, 4*-9.7, 7*-21.7, 10*-32.2 30-70.3, 15-119.9, 30-123.2, 5000-134.2, 8-168.5	0.17	3.23	9.4	20.0	58.0	80.8	218

**Cavell, Mertz & Associates, Inc.**

Exhibit 12 - Table II

(Page 5 of 7)

**PROPOSED DAYTIME DISTANCE TO CONTOURS**

**Radio Disney Sacramento, LLC**

KIID(AM) Sacramento, California

1470 kHz 5 kW-Day/1 kW-Night DA-2 U

Azimuth (deg)	Field at 1 km (mV/m)	Ground Conductivity Data Region Conductivity Data in mS/m followed by distance in km to end of region. * - Indicates Measurement Data	Distance To Contours						
			1000 mV/m (km)	25.0 mV/m (km)	5.0 mV/m (km)	2.0 mV/m (km)	0.5 mV/m (km)	0.25 mV/m (km)	0.025 mV/m (km)
		5000-1300							
215	231	15-0.2, 30-73.5, 15-114.9, 30-117.4, 5000-134.9 8-152.4, 5000-1300	0.23	7.85	27.2	47.5	85.8	105.8	381
220	288	15-0.2, 30-77.5, 15-110.2, 30-116.7, 5000-123 8-144.6, 5000-1300	0.28	9.47	31.4	53.4	93.0	116.6	413
225	344	15-0.2, 30-76.6, 8-81.9, 15-103, 30-109.3 5000-121.4, 8-129.9, 5000-1300	0.34	10.99	35.1	58.6	95.6	128.0	509
230	395	15-0.2, 30-68.9, 8-95.6, 5000-100.3, 30-109.9 5000-115.1, 30-127.1, 5000-1300	0.39	12.29	38.2	62.7	90.5	126.6	517
235	437	15-0.2, 30-63, 8-89.3, 5000-110.3, 30-130.6 5000-131.8, 30-133.6, 5000-1300	0.43	13.34	40.6	64.2	91.1	153.7	546
240	469	5*-4.3, 4*-14.5, 8*-31.4, 30-59.7, 8-89.7 5000-96.4, 30-136, 5000-1300	0.42	6.54	21.8	34.8	74.5	102.3	436
245	490	5*-4.3, 4*-14.5, 8*-31.4, 30-57.9, 8-101.3 30-145.2, 5000-145.5, 30-148.3, 5000-1300	0.44	6.70	22.2	36.2	74.6	94.9	389
250	500	5*-4.3, 4*-14.5, 8*-31.4, 30-56.6, 8-100.9 30-138.9, 5000-1300	0.44	6.78	22.4	36.9	74.5	94.9	404
255	499	5*-4.3, 4*-14.5, 8*-31.4, 30-55.8, 8-101.3 30-137.9, 5000-1300	0.44	6.77	22.4	36.8	74.0	94.4	403
260	487	5*-4.3, 4*-14.5, 8*-31.4, 30-55.4, 8-102.5 30-143.3, 5000-1300	0.43	6.68	22.2	36.0	73.2	93.4	388
265	467	15-0.2, 30-55.5, 8-105.5, 30-147.9, 5000-1300	0.46	14.07	42.2	60.9	87.0	107.7	431
270	442	15-0.2, 30-56.8, 8-109.8, 30-165.1, 5000-1300	0.44	13.47	40.8	60.9	86.4	105.8	390
275	416	15-0.2, 30-58.7, 8-115.4, 30-176.1, 5000-1300	0.41	12.82	39.4	61.1	86.0	104.9	358
280	393	8*-3.2, 5*-5.3, 8*-16.6, 15*-31.4, 30-61.3	0.37	8.15	27.9	50.4	80.9	99.4	294

**Cavell, Mertz & Associates, Inc.**

Exhibit 12 - Table II

(Page 6 of 7)

**PROPOSED DAYTIME DISTANCE TO CONTOURS**

**Radio Disney Sacramento, LLC**

KIID(AM) Sacramento, California

1470 kHz 5 kW-Day/1 kW-Night DA-2 U

Azimuth (deg)	Field at 1 km (mV/m)	Ground Conductivity Data Region Conductivity Data in mS/m followed by distance in km to end of region. * - Indicates Measurement Data	Distance To Contours						
			1000 mV/m (km)	25.0 mV/m (km)	5.0 mV/m (km)	2.0 mV/m (km)	0.5 mV/m (km)	0.25 mV/m (km)	0.025 mV/m (km)
		8-123.6, 30-196.8, 5000-1300							
285	382	8*-3.2, 5*-5.3, 8*-16.6, 15*-31.4, 30-64.6 8-137.9, 30-200.4, 5000-1300	0.36	7.99	27.4	49.5	82.0	100.2	273
290	385	8*-3.2, 5*-5.3, 8*-16.6, 15*-31.4, 30-68.8 8-164.3, 30-192.8, 4-212.1, 5000-1300	0.36	8.03	27.6	49.8	84.5	102.8	214
295	405	8*-3.2, 5*-5.3, 8*-16.6, 15*-31.4, 30-74.2 8-173.4, 4-224.1, 5000-1300	0.38	8.30	28.3	51.4	88.6	107.3	208
300	439	8*-3.2, 5*-5.3, 8*-16.6, 15*-31.4, 30-81.2 8-162.3, 4-230.2, 5000-1300	0.41	8.74	29.5	53.9	94.2	113.6	213
305	480	15-0.2, 30-89.4, 8-153.6, 4-258.2, 5000-1300	0.47	14.37	42.8	69.0	106.5	126.6	224
310	522	5*-6.4, 10*-12.9, 15*-30.9, 30-96.5, 8-148.2 4-327.1, 5000-1300	0.46	10.72	33.0	59.8	106.6	127.3	226
315	559	5*-6.4, 10*-12.9, 15*-30.9, 30-105.6, 8-148.4 4-337.1, 5000-1300	0.49	11.19	34.7	62.1	112.8	134.2	233
320	586	5*-6.4, 10*-12.9, 15*-30.9, 30-116.9, 8-152.3 4-350.6, 5000-1300	0.51	11.53	35.9	63.7	119.4	141.1	241
325	600	5*-6.4, 10*-12.9, 15*-30.9, 30-129.4, 8-168.1 4-380.8, 5000-1300	0.52	11.70	36.5	64.5	122.6	147.6	250
330	599	5*-6.4, 10*-12.9, 15*-30.9, 30-145.1, 8-195.8 4-490.1, 5000-1300	0.52	11.69	36.5	64.5	122.6	154.2	261
335	585	15-1.2, 30-150.2, 8-228.8, 4-567.3, 5000-1300	0.56	16.69	47.7	75.5	133.3	162.4	273
340	560	15-5.3, 30-37.5, 15-102.4, 30-147.4, 8-237 4-605.6, 5000-609.4, 4-634.4, 5000-1300	0.54	15.58	43.0	60.4	98.9	134.6	254
345	533	8*-7.2, 15*-28.2, 15-129.4, 8-239.1, 4-761 5000-1219.4, 1-1224, 5000-1245.6, 1-1251.4, 5000-1255.8	0.50	12.70	32.6	49.7	87.5	114.4	233

**Cavell, Mertz & Associates, Inc.**

Exhibit 12 - Table II

(Page 7 of 7)

**PROPOSED DAYTIME DISTANCE TO CONTOURS**

**Radio Disney Sacramento, LLC**

KIID(AM) Sacramento, California

1470 kHz 5 kW-Day/1 kW-Night DA-2 U

Azimuth (deg)	Field at 1 km (mV/m)	Ground Conductivity Data Region Conductivity Data in mS/m followed by distance in km to end of region. * - Indicates Measurement Data	Distance To Contours						
			1000 mV/m (km)	25.0 mV/m (km)	5.0 mV/m (km)	2.0 mV/m (km)	0.5 mV/m (km)	0.25 mV/m (km)	0.025 mV/m (km)
		1-1300							
350	513	8*-7.2, 15*-28.2, 15-119.4, 8-232.5, 4-853.1 5000-863.1, 4-914.8, 2-1083.3, 5000-1119.5, 1-1195.8 4-1218.8, 5000-1278.6, 1-1300	0.48	12.37	31.9	48.9	86.2	112.8	229
355	512	8*-7.2, 15*-28.2, 15-116, 8-171.5, 4-205.3 8-221.6, 4-429.6, 8-444.6, 4-934, 2-963.9 8-968.6, 2-1000.1, 8-1004.6, 40-1006.4, 2-1027.3 40-1034, 2-1045.8, 5000-1172.4, 4-1183.8, 5000-1184.1 4-1195.2, 5000-1195.8, 1-1300	0.48	12.35	31.9	48.9	86.2	112.7	221

Measured Conductivity Summary

Measured ground conductivities taken from 1978 KIID Proof. See discussion in Engineering Statement and related attachment.

30° : 6-3.22, 10-13.84, 15-27.36

65° : 10-14.48, 7-30.09

110° : 3-2.66, 5-6.44, 6-20.92, 8-31.38

147.5° : 3-6.12, 5-11.27, 8-30.09

152° : 7-3.54, 8-11.27, 10-32.19

175° : 10-16.09, 20-32.19

203° : 4-3.22, 3-7.24, 4-9.66, 7-21.73, 10-32.19

250° : 5-4.35, 4-14.48, 8-31.38

290° : 8-3.22, 5-5.31, 8-16.58, 15-31.38

320° : 5-6.44, 10-12.87, 15-30.90

353° : 8-7.24, 15-28.16

Exhibit 12 - Table III  
**DAYTIME ALLOCATION STUDY – DISTANCE TO CONTOURS KRRS(AM)**  
 prepared for  
**Radio Disney Sacramento, LLC**  
 KRRS(AM) Santa Rosa, California  
 Facility ID 43710  
 1460 kHz 1 kW-Day/0.03 kW-Night DA-2 U

Azimuth (deg)	Field at 1 km (mV/m)	Ground Conductivity Data Region Conductivity Data in mS/m followed by distance in km to end of region. * - Indicates Measurement Data	Distance To Contours	
			0.5 mV/m (km)	0.25 mV/m (km)
0	486	30-23.8, 8-124.9, 4-927.2, 2-970.4, 8-994.4 2-1040.2, 40-1049.4, 2-1072.3, 5000-1163.3, 2-1166.5 4-1221, 1-1300	69.86	90.05
5	481	30-20.5, 8-244.4, 4-1186.4, 1-1214.4, 4-1234.3 1-1296.2, 2-1300	67.81	87.90
10	474	10*-12.4, 30-18.1, 8-259.4, 4-438.2, 8-481 4-670, 8-851.9, 4-1202.9, 1-1224.4, 2-1300	63.45	83.43
15	466	10*-12.4, 30-16.3, 8-131.2, 30-165.8, 8-262.1 4-384.1, 8-479.1, 4-757.8, 15-831.7, 4-1072.4 8-1113.4, 4-1231.2, 1-1300	62.06	81.90
20	456	10*-12.4, 30-15, 8-100.7, 30-172.4, 8-260.9 4-836.8, 15-908.6, 4-934.9, 15-1043.1, 8-1050.3 4-1273.2, 1-1300	60.83	80.50
25	445	10*-12.4, 30-14, 8-84.7, 30-167.3, 15-168.8 8-217.2, 4-975.6, 8-1056, 1-1118.9, 4-1331	59.68	79.15
30	433	10*-12.4, 30-13.1, 8-76.8, 30-144.9, 15-165.6 8-215, 4-983.8, 8-1026.8, 1-1074.3, 4-1300	58.55	78.49
35	418	30-12.5, 8-71.7, 30-132.9, 15-171.8, 8-233 4-318.8, 8-478.8, 4-1300	60.39	85.15
40	402	30-12, 8-67.7, 30-123.5, 15-171.9, 8-511.8 4-776.9, 8-857.6, 4-1300	59.24	85.86
45	385	30-11.6, 8-64.6, 30-119.1, 15-163.4, 8-550.3 4-812, 8-918.7, 4-1297, 8-1300	58.04	85.81
50	365	6*-8.1, 4*-14.8, 8-62.2, 30-116.3, 15-156.4 8-412.4, 4-430.5, 8-589, 4-827.4, 8-986.2 4-1039.4, 8-1140.5, 4-1265.1, 2-1300	46.02	65.32
55	345	6*-8.1, 4*-14.8, 8-60.4, 30-114.5, 15-151 8-328.9, 4-488.1, 8-553.8, 4-591.3, 8-596.8 4-760.5, 8-1140.5, 2-1302.1	44.74	63.68
60	323	6*-8.1, 4*-14.8, 8-59.2, 30-113.6, 15-147.1 8-304.8, 4-761.2, 8-1146.9, 15-1190.3, 2-1267.1 15-1297.2, 8-1300	43.34	61.29
65	300	6*-8.1, 4*-14.8, 8-58.4, 30-112.4, 15-146.3 8-300, 4-768.2, 8-886.4, 15-953.2, 8-1116.2 15-1266.4, 2-1273.6, 15-1300	41.80	58.30
70	276	6*-8.1, 4*-14.8, 8-58.1, 30-111.9, 15-146.6 8-313, 4-784.1, 8-862.9, 15-970.5, 4-1020.6	40.14	56.07

Exhibit 12 - Table III

(Page 2 of 4)

**DAYTIME ALLOCATION STUDY – DISTANCE TO CONTOURS KRRS(AM)**

**Radio Disney Sacramento, LLC**

KRRS(AM) Santa Rosa, California

1460 kHz 1 kW DA-2 U

Azimuth (deg)	Field at 1 km (mV/m)	Ground Conductivity Data Region Conductivity Data in mS/m followed by distance in km to end of region. * - Indicates Measurement Data	Distance To Contours	
			0.5 mV/m (km)	0.25 mV/m (km)
75	252	2-1057.1, 8-1061.9, 15-1125.9, 8-1214.7, 15-1300 30-10.7, 8-57.3, 30-112.2, 15-148, 8-213.4 2-259.5, 8-338, 4-789.4, 15-981, 4-1005 15-1184.2, 8-1300	48.81	70.37
80	227	30-10.9, 8-57, 30-113.4, 15-149.9, 8-203.6 2-272.7, 4-736.6, 15-931.1, 8-1016.3, 15-1073.9 4-1145.3, 8-1300	46.95	65.92
85	202	30-11.1, 8-57.1, 30-115.4, 15-152.2, 8-204.4 2-279.2, 4-733.2, 15-884.1, 8-988.6, 15-1160.2 4-1215.7, 15-1300	45.00	60.74
90	178	15*-12.2, 8-57.7, 30-116.8, 15-155.9, 8-209.2 2-288.9, 4-734.9, 15-866.1, 30-920.6, 8-1065.1 15-1153.7, 4-1300	41.93	55.18
95	154	15*-12.2, 8-58.7, 30-118.8, 15-161, 8-217.3 2-305.8, 4-713.3, 15-837.9, 30-934, 8-966.4 30-971, 15-1040.3, 8-1199.2, 15-1300	39.61	52.11
100	131	15*-12.2, 30-12.5, 8-59.8, 30-121.8, 15-170.1 8-235.5, 2-330, 4-671.9, 8-673.7, 15-835.3 8-976.3, 15-1098, 8-1300	37.27	48.99
105	109	15*-12.2, 30-13.2, 8-60.2, 30-126, 15-183.6 8-264.7, 2-364.5, 4-592, 8-685.5, 15-837.4 8-1075.6, 15-1288, 8-1300	35.04	45.96
110	89	15*-12.2, 30-14.1, 8-61.2, 30-113.1, 15-211.9 8-298, 2-417, 4-594, 8-728, 15-874.3 8-1264.8, 4-1300	32.78	42.87
115	70	30-15.3, 8-62.6, 30-85.6, 15-258.4, 8-341.7 2-463, 4-611.6, 8-788.4, 15-983.1, 8-1137.3 15-1179, 8-1300	31.82	41.07
120	53	30-16.9, 8-64.7, 30-69.3, 15-312.3, 8-353.3 15-353.6, 2-482, 4-573.7, 8-860.4, 15-1304.5	29.52	37.92
125	38	30-19, 8-37.1, 5000-45.6, 8-57.4, 15-260.1 8-354.6, 15-400.8, 8-418.4, 2-445.5, 4-550.1 8-817.6, 15-1014.7, 8-1129, 15-1191.2, 4-1300	27.30	34.82
130	26	30-21.9, 8-36.2, 5000-48.8, 8-55, 15-232.2 8-372.5, 15-412.7, 8-479, 4-537.8, 8-665.8 4-731.3, 2-790.2, 15-935.9, 3-966.3, 4-1159.1 5000-1200.5, 4-1300	25.36	31.96
135	17	15*-12.4, 30-26.1, 8-33.8, 30-36, 5000-52.9 8-53.2, 15-161.6, 8-397.4, 15-457.4, 8-506.2	19.08	28.61

**Cavell, Mertz & Associates, Inc.**

Exhibit 12 - Table III

(Page 3 of 4)

**DAYTIME ALLOCATION STUDY – DISTANCE TO CONTOURS KRRS(AM)**

**Radio Disney Sacramento, LLC**

KRRS(AM) Santa Rosa, California

1460 kHz 1 kW DA-2 U

Azimuth (deg)	Field at 1 km (mV/m)	Ground Conductivity Data Region Conductivity Data in mS/m followed by distance in km to end of region. * - Indicates Measurement Data	Distance To Contours	
			0.5 mV/m (km)	0.25 mV/m (km)
		4-541.4, 8-566.5, 4-653.7, 8-770.6, 4-873.8 3-1056.9, 5000-1300		
140	11	15*-12.4, 30-36, 5000-52.5, 30-58.8, 15-151.3 8-486.2, 4-562.7, 8-609.5, 15-654.6, 5000-797.4 15-804.6, 5000-812.9, 15-826.2, 3-1300	13.71	24.30
145	11	15*-12.4, 30-37.2, 5000-52.3, 30-66.7, 15-122.9 30-130.5, 8-417.5, 4-532.8, 8-546, 5000-1300	12.77	22.95
150	12	15*-12.4, 30-41, 5000-52.5, 30-60.4, 5000-70.9 30-78.1, 5000-103.4, 30-113.5, 8-196.5, 15-260.2 8-499.2, 5000-1300	14.03	24.76
155	12	30-49.9, 5000-69.4, 8-74.5, 5000-100, 8-170.3 5000-196.1, 15-261.7, 8-338.3, 5000-455.1, 8-465.3 5000-1300	17.44	28.45
160	12	10*-13, 4*-18.5, 30-63.1, 5000-65.8, 8-89.3 5000-89.9, 8-166.3, 5000-206, 15-253.8, 5000-1300	11.55	13.04
165	11	10*-13, 4*-18.5, 30-63.1, 5000-75.3, 8-142.6 5000-1300	10.84	13.04
170	11	10*-13, 4*-18.5, 30-55.8, 5000-1300	11.36	13.04
175	17	10*-13, 4*-18.5, 30-51.6, 5000-1300	13.04	13.04
180	26	30-52.3, 5000-1300	29.54	44.93
185	38	30-47.8, 5000-1300	37.60	72.29
190	53	30-44.2, 5000-1300	47.73	113.60
195	70	30-41.4, 5000-1300	76.62	151.58
200	89	8*-13.8, 30-41.8, 5000-1300	67.46	149.64
205	109	8*-13.8, 30-42.5, 5000-1300	88.30	175.97
210	131	8*-13.8, 30-48.7, 5000-1300	94.61	186.77
215	154	8*-13.8, 30-36.1, 5000-1300	143.44	239.02
220	178	8*-13.8, 30-31.2, 5000-1300	172.11	270.32
225	202	30-29.7, 5000-1300	218.79	319.25
230	227	30-28.6, 5000-1300	236.16	338.30
235	252	30-27.8, 5000-1300	251.73	355.49
240	276	30-25.8, 5000-1300	267.49	372.39
245	300	30-26.2, 5000-1300	279.06	384.94
250	323	30-26.9, 5000-1300	289.04	395.79
255	345	30-28.5, 5000-1300	296.73	404.22
260	365	30-30.6, 5000-1300	302.39	410.42
265	385	30-30.8, 5000-1300	309.74	418.26
270	402	30-31.3, 5000-1300	315.95	424.87
275	418	30-32.7, 5000-1300	319.88	429.24

# Exhibit 12 - Table III

(Page 4 of 4)

## DAYTIME ALLOCATION STUDY – DISTANCE TO CONTOURS KRRS(AM)

**Radio Disney Sacramento, LLC**

KRRS(AM) Santa Rosa, California

1460 kHz 1 kW DA-2 U

Azimuth (deg)	Field at 1 km (mV/m)	Ground Conductivity Data Region Conductivity Data in mS/m followed by distance in km to end of region. * - Indicates Measurement Data	Distance To Contours	
			0.5 mV/m (km)	0.25 mV/m (km)
280	433	7*-12.9, 30-35, 5000-1300	289.74	399.52
285	445	7*-12.9, 30-37.9, 5000-1300	287.89	397.86
290	456	7*-12.9, 30-51.6, 5000-1300	259.26	369.38
295	466	7*-12.9, 30-63.8, 5000-1300	231.29	341.54
300	474	7*-12.9, 30-75.4, 5000-1300	203.41	313.76
305	481	30-107.9, 5000-1300	161.84	272.26
310	486	30-110.1, 5000-1300	158.11	268.60
315	491	30-120.5, 4-123.6, 5000-1300	122.20	222.80
320	494	15*-16.9, 30-115.3, 4-146.5, 5000-1300	117.31	132.69
325	496	15*-16.9, 30-111.2, 4-156.1, 5000-1300	114.95	130.35
330	497	15*-16.9, 30-92.3, 8-108.2, 4-280, 5000-1300	106.74	122.52
335	498	15*-16.9, 30-76.6, 8-107.9, 4-298.8, 5000-1300	98.37	116.16
340	497	15*-16.9, 30-57.7, 8-108.5, 4-339.1, 5000-1300	87.76	108.14
345	496	30-46.5, 8-109.9, 4-541.7, 5000-1300	83.28	103.63
350	494	30-36.2, 8-112.3, 4-600.5, 5000-603.1, 4-649.7 5000-1207, 1-1300	77.21	97.53
355	491	30-28.6, 8-115.6, 4-870.3, 5000-883.4, 4-936.8 2-958.1, 5000-958.7, 2-1094.1, 5000-1128.2, 1-1200.4 4-1222.8, 5000-1277.7, 1-1300	72.74	93.01

### Measured Conductivity Summary

Measured ground conductivities taken from 1975 KRRS Partial Proof. See discussion in Engineering Statement and related attachment.

20° : 10-12.39

60° : 6-8.05, 4-14.81

100° : 15-12.23

143.5° : 15-12.39

166.5° : 10-13.04, 4-18.51

210° : 8-13.84

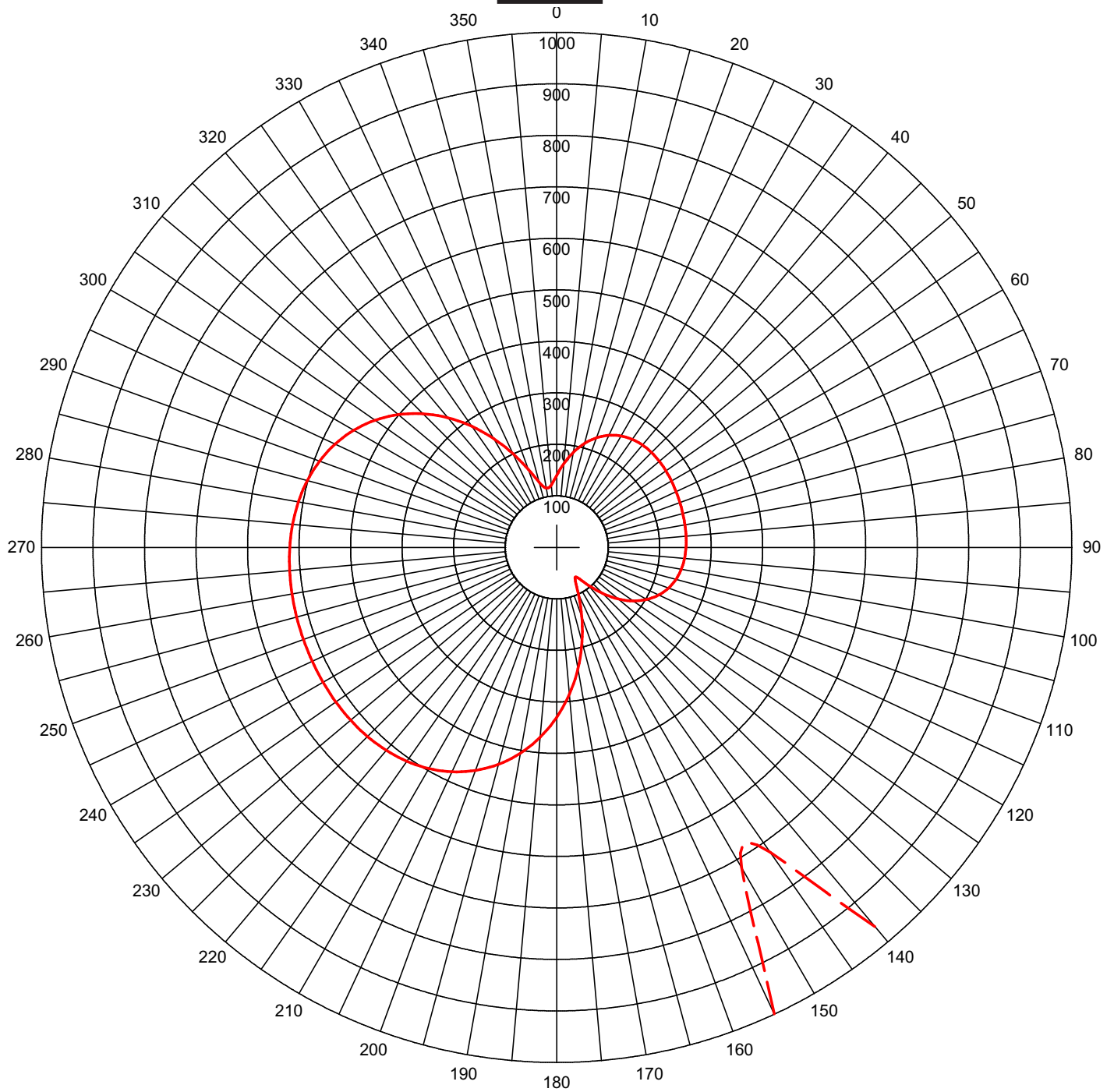
290° : 7-12.87

330° : 15-16.90



# AM Directional Pattern

True North



Theo RMS: 327.547 mV/m@1km  
 Std RMS: 344.085 mV/m@1km  
 Q: 10.0 mV/m@1km

Standard Horizontal Plane Pattern

— Pattern (mV/m @ 1km)  
 - - - Pattern X10

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Switch	TL Switch	A (deg)	B (deg)	C (deg)	D (deg)
1	1.000	0.0	0.0	0.0	99.5	0	0	0.0	0.0	0.0	0.0
2	1.180	112.0	90.6	63.5	99.5	0	0	0.0	0.0	0.0	0.0
3	1.510	-73.0	90.6	256.7	99.5	0	0	0.0	0.0	0.0	0.0

## EXHIBIT 12 - FIGURE 6 NIGHTTIME RADIATION PATTERN PLOT

prepared June 2010 for  
**Radio Disney Sacramento, LLC**  
 KIID(AM) Sacramento, California  
 Facility ID 65482  
 1470 kHz 5 kW-Day/1 kW-Night DA-2 U

Cavell, Mertz & Associates, Inc.  
 Manassas, Virginia

Exhibit 12 - Table IV

**PROPOSED NIGHTTIME DIRECTIONAL ANTENNA PARAMETERS  
STANDARD RADIATION PATTERN DATA**

prepared for

**Radio Disney Sacramento, LLC**

KIID(AM) Sacramento, California

Facility ID 65482

1470 kHz 5 kW-Day/1 kW-Night DA-2 U

<b>Tower Number</b>	<b>Field Ratio</b>	<b>Phase (deg)</b>	<b>Spacing (deg)</b>	<b>Bearing (deg)</b>	<b>Height (deg)</b>
<b>1</b>	1.000	0.0	0.0	0.0	99.5
<b>2</b>	1.180	112.0	90.6	63.5	99.5
<b>3</b>	1.510	-73.0	90.6	256.7	99.5

<b>Input Power (kW)</b>	<b>Loop Loss (Ohms)</b>	<b>Theoretical</b>		<b>Q Factor (mV/m)</b>	<b>Standard RMS (mV/m)</b>
		<b>RMS (mV/m)</b>	<b>RSS (mV/m)</b>		
1.0	1.00	327.5	295.2	10.0	344.1

<b>Azimuth (deg)</b>	<b>Field (mV/m)</b>	<b>Azimuth (deg)</b>	<b>Field (mV/m)</b>	<b>Azimuth (deg)</b>	<b>Field (mV/m)</b>	<b>Azimuth (deg)</b>	<b>Field (mV/m)</b>
0	139.7	90	251.1	180	330.1	270	518.0
5	163.5	95	249.1	185	370.3	275	514.4
10	187.4	100	245.6	190	405.7	280	509.0
15	208.8	105	239.8	195	435.9	285	500.9
20	226.4	110	231.1	200	460.9	290	489.6
25	240.0	115	218.8	205	480.7	295	474.4
30	249.7	120	202.2	210	495.9	300	454.8
35	255.9	125	181.2	215	506.9	305	430.3
40	259.3	130	155.6	220	514.5	310	401.0
45	260.5	135	126.4	225	519.3	315	366.8
50	260.2	140	96.1	230	522.0	320	328.5
55	259.0	145	72.3	235	523.3	325	286.9
60	257.5	150	71.8	240	523.7	330	243.5
65	255.9	155	100.0	245	523.5	335	200.5
70	254.6	160	142.5	250	523.1	340	161.3
75	253.6	165	190.1	255	522.4	345	131.1
80	252.9	170	238.6	260	521.5	350	116.8
85	252.2	175	285.8	265	520.2	355	121.5

Exhibit 12 - Table IV

(Page 2 of 5)

**PROPOSED NIGHTTIME DIRECTIONAL ANTENNA PARAMETERS  
STANDARD RADIATION PATTERN DATA**

Azimuth (°)	Standard Radiation (at One Kilometer)					
	Elevation Angle in Degrees					
	5° (mV/m)	10° (mV/m)	15° (mV/m)	20° (mV/m)	25° (mV/m)	30° (mV/m)
0	138.4	134.6	128.5	120.5	110.9	100.4
5	161.9	157.3	149.8	139.9	128.0	114.8
10	185.6	180.3	171.7	160.3	146.6	131.2
15	206.8	201.0	191.7	179.2	164.1	147.1
20	224.4	218.4	208.6	195.5	179.5	161.3
25	238.0	231.9	222.0	208.5	192.1	173.2
30	247.7	241.7	231.8	218.5	202.0	182.9
35	254.0	248.2	238.6	225.5	209.3	190.3
40	257.5	251.9	242.8	230.1	214.3	195.6
45	258.8	253.5	244.8	232.8	217.5	199.3
50	258.6	253.6	245.4	233.9	219.2	201.6
55	257.5	252.8	245.0	234.0	219.9	202.8
60	256.0	251.6	244.1	233.5	219.9	203.2
65	254.5	250.2	243.0	232.7	219.4	203.0
70	253.2	249.0	241.9	231.8	218.6	202.4
75	252.2	248.0	240.9	230.7	217.5	201.3
80	251.5	247.2	239.9	229.6	216.2	199.8
85	250.7	246.2	238.7	228.1	214.4	197.7
90	249.5	244.8	237.0	225.9	211.8	194.8
95	247.5	242.5	234.3	222.8	208.2	190.8
100	243.9	238.6	230.0	218.1	203.1	185.4
105	238.0	232.6	223.6	211.4	196.1	178.2
110	229.2	223.7	214.5	202.1	186.7	168.9
115	216.9	211.3	202.1	189.8	174.6	157.2
120	200.4	194.9	186.0	174.0	159.5	142.9
125	179.4	174.2	165.9	154.7	141.2	125.9
130	154.0	149.4	141.9	132.0	120.1	106.8
135	125.1	121.2	115.1	106.9	97.2	86.5
140	95.1	92.3	87.9	82.0	75.2	67.9
145	71.8	70.3	67.9	64.9	61.4	57.7
150	71.6	70.9	69.8	68.4	66.5	64.3
155	99.6	98.4	96.4	93.7	90.2	86.1
160	141.7	139.2	135.3	129.9	123.3	115.6
165	188.8	184.9	178.7	170.3	160.0	148.3
170	236.8	231.5	223.0	211.5	197.6	181.9
175	283.6	276.9	266.2	251.9	234.5	214.8

Exhibit 12 - Table IV

(Page 3 of 5)

**PROPOSED NIGHTTIME DIRECTIONAL ANTENNA PARAMETERS  
STANDARD RADIATION PATTERN DATA**

Azimuth (°)	Standard Radiation (at One Kilometer)					
	Elevation Angle in Degrees					
	5° (mV/m)	10° (mV/m)	15° (mV/m)	20° (mV/m)	25° (mV/m)	30° (mV/m)
180	327.4	319.6	306.9	290.0	269.5	246.2
185	367.3	358.4	344.1	324.9	301.7	275.4
190	402.4	392.8	377.1	356.1	330.7	301.7
195	432.5	422.2	405.5	383.2	356.0	325.0
200	457.3	446.6	429.3	406.0	377.6	345.0
205	477.1	466.2	448.5	424.6	395.4	361.9
210	492.2	481.3	463.5	439.4	409.8	375.6
215	503.3	492.4	474.7	450.7	421.0	386.6
220	510.9	500.2	482.7	458.9	429.4	395.1
225	515.8	505.3	488.1	464.7	435.5	401.4
230	518.6	508.4	491.5	468.5	439.7	405.9
235	520.0	510.0	493.5	470.8	442.4	409.0
240	520.4	510.6	494.3	472.0	443.9	410.8
245	520.3	510.6	494.5	472.4	444.6	411.7
250	519.8	510.2	494.2	472.2	444.5	411.8
255	519.2	509.5	493.5	471.5	443.8	411.0
260	518.3	508.5	492.4	470.2	442.4	409.5
265	516.9	507.0	490.7	468.2	440.1	407.0
270	514.6	504.5	487.9	465.2	436.8	403.4
275	511.0	500.7	483.8	460.8	432.0	398.4
280	505.5	495.0	477.9	454.5	425.5	391.7
285	497.4	486.8	469.4	445.8	416.8	383.0
290	486.0	475.4	458.0	434.4	405.4	371.9
295	470.8	460.2	442.9	419.6	391.0	358.2
300	451.3	440.8	423.9	401.2	373.4	341.5
305	426.9	416.9	400.7	378.8	352.3	321.9
310	397.8	388.3	373.0	352.5	327.6	299.3
315	363.9	355.3	341.3	322.5	299.7	273.9
320	325.9	318.2	305.8	289.1	269.0	246.1
325	284.7	278.1	267.5	253.3	236.1	216.5
330	241.7	236.3	227.7	216.1	202.1	186.1
335	199.1	195.0	188.4	179.5	168.6	156.2
340	160.2	157.3	152.4	145.9	137.9	128.7
345	130.3	128.1	124.4	119.5	113.4	106.5
350	116.0	113.8	110.2	105.5	99.7	93.3
355	120.5	117.6	113.0	106.9	99.7	91.7

Exhibit 12 - Table IV

(Page 4 of 5)

**PROPOSED NIGHTTIME DIRECTIONAL ANTENNA PARAMETERS  
STANDARD RADIATION PATTERN DATA**

Azimuth (°)	Standard Radiation (at One Kilometer)					
	Elevation Angle in Degrees					
	35° (mV/m)	40° (mV/m)	45° (mV/m)	50° (mV/m)	55° (mV/m)	60° (mV/m)
0	89.3	78.3	67.8	58.2	49.6	42.0
5	101.0	87.0	73.6	61.3	50.5	41.4
10	114.8	98.2	82.1	67.0	53.7	42.4
15	128.7	110.0	91.4	74.0	58.2	44.8
20	141.5	121.1	100.7	81.2	63.3	47.8
25	152.6	131.0	109.2	88.1	68.5	51.2
30	161.8	139.4	116.7	94.3	73.3	54.5
35	169.1	146.4	123.0	99.8	77.7	57.7
40	174.6	151.8	128.1	104.3	81.5	60.5
45	178.6	155.9	132.1	108.0	84.6	62.9
50	181.3	158.9	135.1	110.8	87.0	64.8
55	182.9	160.8	137.2	112.9	88.8	66.2
60	183.7	161.9	138.4	114.1	90.0	67.1
65	183.8	162.2	138.9	114.7	90.5	67.6
70	183.3	161.9	138.7	114.5	90.4	67.5
75	182.3	160.9	137.8	113.7	89.7	66.9
80	180.7	159.3	136.1	112.2	88.4	65.8
85	178.4	156.9	133.8	109.9	86.4	64.3
90	175.2	153.6	130.5	106.9	83.8	62.1
95	171.0	149.2	126.3	103.1	80.5	59.5
100	165.4	143.7	121.1	98.3	76.5	56.4
105	158.2	136.8	114.6	92.7	71.7	52.8
110	149.2	128.3	106.9	86.0	66.4	48.9
115	138.1	118.1	97.9	78.4	60.4	44.7
120	124.9	106.2	87.7	70.0	54.0	40.4
125	109.6	92.9	76.5	61.2	47.7	36.5
130	92.7	78.5	64.9	52.5	42.0	33.6
135	75.4	64.4	54.3	45.4	38.0	32.4
140	60.5	53.5	47.2	41.8	37.3	33.5
145	54.0	50.5	47.2	43.9	40.7	37.2
150	61.8	58.9	55.6	51.9	47.7	43.0
155	81.4	76.1	70.3	64.0	57.4	50.3
160	107.1	98.0	88.5	78.6	68.7	58.7
165	135.6	122.1	108.3	94.5	80.9	67.6
170	164.8	146.9	128.8	110.8	93.4	76.8
175	193.6	171.4	149.1	127.1	106.0	86.1

Exhibit 12 - Table IV

(Page 5 of 5)

**PROPOSED NIGHTTIME DIRECTIONAL ANTENNA PARAMETERS  
STANDARD RADIATION PATTERN DATA**

Azimuth (°)	Standard Radiation (at One Kilometer)					
	Elevation Angle in Degrees					
	35° (mV/m)	40° (mV/m)	45° (mV/m)	50° (mV/m)	55° (mV/m)	60° (mV/m)
180	221.1	195.1	168.8	143.0	118.3	95.2
185	246.9	217.3	187.4	158.1	130.1	104.0
190	270.4	237.7	204.6	172.2	141.3	112.4
195	291.3	256.1	220.4	185.2	151.6	120.2
200	309.5	272.3	234.4	197.0	161.0	127.4
205	325.1	286.3	246.7	207.4	169.5	133.9
210	338.0	298.2	257.3	216.5	177.0	139.8
215	348.6	308.0	266.2	224.3	183.5	144.9
220	356.9	315.9	273.5	230.8	189.0	149.3
225	363.2	322.2	279.4	236.1	193.5	152.9
230	368.0	326.9	283.9	240.2	197.1	155.9
235	371.3	330.3	287.3	243.4	199.9	158.2
240	373.4	332.6	289.5	245.5	201.8	159.8
245	374.4	333.8	290.8	246.7	202.9	160.7
250	374.6	334.0	291.1	247.0	203.2	161.0
255	373.9	333.3	290.4	246.5	202.8	160.6
260	372.3	331.7	288.9	245.0	201.5	159.6
265	369.7	329.0	286.3	242.7	199.4	157.9
270	365.9	325.3	282.7	239.4	196.6	155.6
275	360.8	320.3	277.9	235.0	192.8	152.6
280	354.1	313.8	271.9	229.6	188.2	148.9
285	345.6	305.7	264.4	223.1	182.7	144.5
290	335.0	295.8	255.5	215.3	176.3	139.4
295	322.1	284.0	245.0	206.3	168.9	133.6
300	306.8	270.2	232.9	196.0	160.5	127.2
305	288.9	254.3	219.2	184.6	151.3	120.2
310	268.5	236.4	203.9	171.9	141.3	112.6
315	245.9	216.7	187.3	158.3	130.6	104.6
320	221.3	195.5	169.5	143.9	119.3	96.2
325	195.4	173.3	150.9	128.9	107.6	87.5
330	168.8	150.6	132.1	113.8	95.9	78.9
335	142.7	128.4	113.7	99.0	84.5	70.4
340	118.6	107.8	96.5	85.1	73.7	62.4
345	98.8	90.6	82.0	73.1	64.2	55.2
350	86.3	79.0	71.5	64.0	56.6	49.1
355	83.3	74.9	66.7	58.9	51.5	44.6

Exhibit 12 – Table V  
**NIGHTTIME INTERFERENCE-FREE  
 CONTOUR CALCULATION**

prepared for  
**Radio Disney Sacramento, LLC**  
 KIID(AM) Sacramento, California  
 Facility ID 65482  
 1470 kHz 5 kW-Day/1 kW-Night DA-2 U

<u>Station</u>	<u>Distance</u> <u>(km)</u>	<u>Bearing</u> <u>(deg)</u>	<u>Vert. Angle</u> <u>(deg)</u>	<u>Radiation</u> <u>(mV/m)</u>	<u>Skywave</u> <u>Factor</u> <u>(mV/m)</u>	<u>Night Limit</u> <u>(mV/m)</u>	<u>RSS Limit</u> <u>(mV/m)</u>
XERCN, Tijuana, BN, Mexico	790.0	330.3	8.5-15.0	730.6	0.0658	9.61	<b>9.61</b>
					-----	50% Exclusion	-----
KUTY, Palmdale, CA	534.2	325.8	13.9-22.9	175.9	0.1118	3.93	10.38
KELA, Centralia-Chehali, WA	909.3	171.8	6.9-12.7	310.2	0.0479	2.97	10.80

Exhibit 12 - Table VI  
**PROPOSED NIGHTTIME DISTANCE TO CONTOURS**  
 prepared for  
**Radio Disney Sacramento, LLC**  
 KIID(AM) Sacramento, California  
 Facility ID 65482  
 1470 kHz 5 kW-Day/1 kW-Night DA-2 U

Azimuth (deg)	Field at 1 km (mV/m)	Ground Conductivity Data Region Conductivity Data in mS/m followed by distance in km to end of region. * - Indicates Measurement Data	Distance To Contours		
			1000 mV/m (km)	25.0 mV/m (km)	9.6 mV/m (km)
0	140	8*-7.2, 15*-28.2, 15-109.6, 8-160.9, 4-343.8 8-443, 4-1217.1, 1-1312.5	0.14	3.91	9.7
5	163	15-87.8, 8-160.2, 4-400.9, 8-428.7, 4-669.8 8-817.3, 4-1161.8, 1-1203.6, 2-1300	0.16	5.18	10.9
10	187	15-71.1, 8-169.2, 4-739, 15-790.6, 4-1022.3 8-1064.6, 4-1177.7, 2-1200.8, 1-1300	0.18	5.79	12.0
15	209	15-60.1, 8-180.8, 4-792.7, 15-998.7, 4-1205.4 1-1300	0.20	6.32	12.9
20	226	6*-3.2, 10*-13.8, 15*-27.4, 15-52.5, 8-304.2 4-909.1, 8-1006.4, 1-1061, 4-1246.6, 1-1300	0.21	6.03	11.6
25	240	6*-3.2, 10*-13.8, 15*-27.4, 15-47.8, 8-402.2 4-914.2, 8-964.1, 1-1011.4, 4-1303	0.23	6.29	12.0
30	250	6*-3.2, 10*-13.8, 15*-27.4, 15-44.5, 8-420.5 4-1272.6, 8-1300	0.23	6.48	12.3
35	256	6*-3.2, 10*-13.8, 15*-27.4, 15-41.9, 8-442.4 4-687.1, 8-756.8, 4-1213.5, 8-1258.4, 15-1300	0.24	6.59	12.5
40	259	6*-3.2, 10*-13.8, 15*-27.4, 15-39.9, 8-467.7 4-717.8, 8-811, 4-1300	0.24	6.66	12.6
45	261	15-38.3, 8-229.3, 4-363.4, 8-491.4, 4-725.2 8-856.6, 4-1189.5, 8-1300	0.26	7.53	14.9
50	260	15-37.2, 8-205, 4-405.2, 8-494.3, 4-667.6 8-1041.1, 4-1150.3, 2-1236.8, 8-1300	0.26	7.52	14.9
55	259	10*-14.5, 7*-30.1, 15-36.3, 8-194.1, 4-655 8-1023.1, 2-1187.4, 8-1300	0.25	6.65	12.6
60	257	10*-14.5, 7*-30.1, 15-35.8, 8-190.9, 4-654.7 8-1036.3, 15-1089.8, 2-1157.1, 15-1231.5, 8-1300	0.25	6.62	12.5
65	256	10*-14.5, 7*-30.1, 15-35.6, 8-196.2, 4-660.2 8-772.7, 15-859.7, 8-997.1, 15-1300	0.25	6.59	12.5
70	255	10*-14.5, 7*-30.1, 15-35.6, 8-215, 4-673.7 8-749.9, 15-858.7, 4-908.8, 2-947, 8-949.9 15-1014.4, 8-1103.2, 15-1292.1, 2-1300	0.25	6.57	12.4
75	254	10*-14.5, 7*-30.1, 15-35.9, 8-96.9, 2-148.8 8-225.3, 4-686, 15-866.5, 4-893.5, 15-1076 8-1138.4, 15-1171.5, 8-1234, 2-1300	0.25	6.55	12.4



Exhibit 12 - Table VI

(Page 2 of 5)

**PROPOSED NIGHTTIME DISTANCE TO CONTOURS**

**Radio Disney Sacramento, LLC**

KIID(AM) Sacramento, California

1470 kHz 5 kW-Day/1 kW-Night DA-2 U

Azimuth (deg)	Field at 1 km (mV/m)	Ground Conductivity Data Region Conductivity Data in mS/m followed by distance in km to end of region. * - Indicates Measurement Data	Distance To Contours		
			1000 mV/m (km)	25.0 mV/m (km)	9.6 mV/m (km)
80	253	15-36.5, 8-91.1, 2-159.4, 4-166.3, 8-214.6 4-627, 15-835.4, 8-908.2, 15-949.9, 4-1028.6 8-1190.3, 2-1300	0.25	7.36	14.6
85	252	15-37, 8-91.3, 2-161.6, 4-621, 15-783.1 8-876.8, 15-1175.7, 8-1220.8, 2-1300	0.25	7.34	14.6
90	251	15-37.8, 8-92.3, 2-166.9, 4-624, 15-776.2 8-947.6, 15-1021.6, 4-1205, 2-1300	0.25	7.32	14.6
95	249	15-39, 8-94, 2-174, 4-622.6, 15-728.7 30-863.3, 8-898.7, 15-1158, 4-1300	0.24	7.27	14.5
100	246	3*-2.7, 5*-6.4, 6*-20.9, 8*-31.4, 15-40.6 8-97.3, 2-183.2, 4-601.9, 15-738.4, 8-757.5 30-798.7, 8-863.1, 15-946.4, 8-1166.4, 15-1300	0.21	4.91	9.6
105	240	3*-2.7, 5*-6.4, 6*-20.9, 8*-31.4, 15-42.6 8-102.5, 2-198.8, 4-572.5, 15-732.9, 8-899.3 15-1025.3, 8-1079.8, 15-1118.5, 8-1308.9	0.21	4.83	9.4
110	231	3*-2.7, 5*-6.4, 6*-20.9, 8*-31.4, 15-45.3 8-109, 2-220.9, 4-514.5, 8-579.2, 15-740.5 8-1002.9, 15-1185, 4-1287.2, 8-1300	0.20	4.72	9.2
115	219	3*-2.7, 5*-6.4, 6*-20.9, 8*-31.4, 15-48.7 8-120.7, 2-252.5, 4-476.5, 8-626, 15-779.5 8-1241.2, 4-1300	0.19	4.55	9.0
120	202	3*-2.7, 5*-6.4, 6*-20.9, 8*-31.4, 15-53 8-144.4, 2-305.3, 4-520.9, 8-679.8, 15-878.1 8-974.2, 15-993.2, 8-1042.2, 15-1177.7, 8-1443	0.18	4.32	8.6
125	181	15-58.7, 8-185.8, 2-370.4, 4-519.3, 8-759.1 15-1214.6, 8-1298, 4-1300	0.18	5.64	11.7
130	156	15-67.1, 8-246.6, 2-407.9, 4-496.2, 8-765.2 15-948.1, 8-1048.7, 15-1120.2, 4-1300	0.15	4.97	10.5
135	126	15-82.1, 8-278.6, 2-392.8, 4-483.6, 8-701.7 2-731.3, 15-904.4, 8-944.9, 4-1104.6, 5000-1133.4 4-1300	0.12	4.17	9.0
140	96	3*-6.1, 5*-11.3, 8*-30.1, 15-241.6, 8-281.4 15-335.3, 2-337.7, 8-373.7, 2-374.3, 4-478.9 8-597.1, 4-839.8, 3-982, 5000-1300	0.10	2.10	3.9
145	72	3*-6.1, 5*-11.3, 8*-30.1, 15-218.8, 8-304 15-354.3, 8-439.2, 4-483.2, 8-537.1, 4-600.5 8-801.1, 3-1300	0.10	1.71	3.3
150	72	7*-3.5, 8*-11.3, 10*-32.2, 15-203.1, 8-337.2 15-413.4, 8-464.9, 4-529, 8-572.9, 15-613.2	0.10	2.21	4.9

Exhibit 12 - Table VI

(Page 3 of 5)

**PROPOSED NIGHTTIME DISTANCE TO CONTOURS**

**Radio Disney Sacramento, LLC**

KIID(AM) Sacramento, California

1470 kHz 5 kW-Day/1 kW-Night DA-2 U

Azimuth (deg)	Field at 1 km (mV/m)	Ground Conductivity Data Region Conductivity Data in mS/m followed by distance in km to end of region. * - Indicates Measurement Data	Distance To Contours		
			1000 mV/m (km)	25.0 mV/m (km)	9.6 mV/m (km)
155	100	7*-3.5, 8*-11.3, 10*-32.2, 15-193.9, 8-437.3 4-510, 8-551.3, 5000-1300	0.10	2.89	6.2
160	143	7*-3.5, 8*-11.3, 10*-32.2, 15-186.8, 8-393 4-491.1, 5000-1300	0.14	3.97	7.8
165	190	10*-16.1, 20*-32.2, 15-176.2, 8-473.5, 5000-1300	0.19	5.28	10.4
170	239	10*-16.1, 20*-32.2, 30-63.5, 15-147.8, 8-385.4 5000-444.6, 8-454.7, 5000-1300	0.23	6.26	12.0
175	286	10*-16.1, 20*-32.2, 30-64, 15-140.5, 8-334.2 5000-1300	0.28	7.14	13.3
180	330	10*-16.1, 20*-32.2, 30-64.4, 15-139.9, 8-213.5 15-261.4, 8-297.5, 5000-1300	0.32	7.90	14.5
185	370	10*-16.1, 20*-32.2, 30-64.1, 15-141.5, 8-193.7 15-266.6, 5000-1300	0.35	8.55	15.5
190	406	15-0.3, 30-64.3, 15-139.8, 8-190.9, 5000-222 15-239.3, 5000-1300	0.40	12.57	25.6
195	436	4*-3.2, 3*-7.2, 4*-9.7, 7*-21.7, 10*-32.2 30-64.9, 15-136.1, 30-137, 8-188.2, 5000-1300	0.38	5.42	14.1
200	461	4*-3.2, 3*-7.2, 4*-9.7, 7*-21.7, 10*-32.2 30-66.1, 15-129.8, 30-135.2, 8-188, 5000-1300	0.40	5.59	14.5
205	481	4*-3.2, 3*-7.2, 4*-9.7, 7*-21.7, 10*-32.2 30-67.9, 15-124.8, 30-133.8, 5000-134.4, 8-179.1 5000-1300	0.41	5.72	14.9
210	496	4*-3.2, 3*-7.2, 4*-9.7, 7*-21.7, 10*-32.2 30-70.3, 15-119.9, 30-123.2, 5000-134.2, 8-168.5 5000-1300	0.43	5.82	15.1
215	507	15-0.2, 30-73.5, 15-114.9, 30-117.4, 5000-134.9 8-152.4, 5000-1300	0.50	14.99	29.7
220	514	15-0.2, 30-77.5, 15-110.2, 30-116.7, 5000-123 8-144.6, 5000-1300	0.51	15.17	30.0
225	519	15-0.2, 30-76.6, 8-81.9, 15-103, 30-109.3 5000-121.4, 8-129.9, 5000-1300	0.51	15.28	30.2
230	522	15-0.2, 30-68.9, 8-95.6, 5000-100.3, 30-109.9 5000-115.1, 30-127.1, 5000-1300	0.51	15.34	30.3
235	523	15-0.2, 30-63, 8-89.3, 5000-110.3, 30-130.6 5000-131.8, 30-133.6, 5000-1300	0.51	15.37	30.3
240	524	5*-4.3, 4*-14.5, 8*-31.4, 30-59.7, 8-89.7 5000-96.4, 30-136, 5000-1300	0.46	6.95	11.4
245	524	5*-4.3, 4*-14.5, 8*-31.4, 30-57.9, 8-101.3 30-145.2, 5000-145.5, 30-148.3, 5000-1300	0.46	6.95	11.4

Exhibit 12 - Table VI

(Page 4 of 5)

**PROPOSED NIGHTTIME DISTANCE TO CONTOURS**

**Radio Disney Sacramento, LLC**

KIID(AM) Sacramento, California

1470 kHz 5 kW-Day/1 kW-Night DA-2 U

Azimuth (deg)	Field at 1 km (mV/m)	Ground Conductivity Data Region Conductivity Data in mS/m followed by distance in km to end of region. * - Indicates Measurement Data	Distance To Contours		
			1000 mV/m (km)	25.0 mV/m (km)	9.6 mV/m (km)
250	523	5*-4.3, 4*-14.5, 8*-31.4, 30-56.6, 8-100.9 30-138.9, 5000-1300	0.46	6.95	11.4
255	522	5*-4.3, 4*-14.5, 8*-31.4, 30-55.8, 8-101.3 30-137.9, 5000-1300	0.46	6.94	11.4
260	522	5*-4.3, 4*-14.5, 8*-31.4, 30-55.4, 8-102.5 30-143.3, 5000-1300	0.46	6.94	11.4
265	520	15-0.2, 30-55.5, 8-105.5, 30-147.9, 5000-1300	0.51	15.30	30.2
270	518	15-0.2, 30-56.8, 8-109.8, 30-165.1, 5000-1300	0.51	15.25	30.1
275	514	15-0.2, 30-58.7, 8-115.4, 30-176.1, 5000-1300	0.51	15.17	30.0
280	509	8*-3.2, 5*-5.3, 8*-16.6, 15*-31.4, 30-61.3 8-123.6, 30-196.8, 5000-1300	0.47	9.58	16.4
285	501	8*-3.2, 5*-5.3, 8*-16.6, 15*-31.4, 30-64.6 8-137.9, 30-200.4, 5000-1300	0.47	9.49	16.3
290	490	8*-3.2, 5*-5.3, 8*-16.6, 15*-31.4, 30-68.8 8-164.3, 30-192.8, 4-212.1, 5000-1300	0.46	9.36	16.1
295	474	8*-3.2, 5*-5.3, 8*-16.6, 15*-31.4, 30-74.2 8-173.4, 4-224.1, 5000-1300	0.44	9.17	15.8
300	455	8*-3.2, 5*-5.3, 8*-16.6, 15*-31.4, 30-81.2 8-162.3, 4-230.2, 5000-1300	0.43	8.94	15.5
305	430	15-0.2, 30-89.4, 8-153.6, 4-258.2, 5000-1300	0.42	13.18	26.7
310	401	5*-6.4, 10*-12.9, 15*-30.9, 30-96.5, 8-148.2 4-327.1, 5000-1300	0.36	9.02	19.5
315	367	5*-6.4, 10*-12.9, 15*-30.9, 30-105.6, 8-148.4 4-337.1, 5000-1300	0.33	6.32	18.5
320	329	5*-6.4, 10*-12.9, 15*-30.9, 30-116.9, 8-152.3 4-350.6, 5000-1300	0.30	5.90	17.3
325	287	5*-6.4, 10*-12.9, 15*-30.9, 30-129.4, 8-168.1 4-380.8, 5000-1300	0.26	5.43	15.9
330	243	5*-6.4, 10*-12.9, 15*-30.9, 30-145.1, 8-195.8 4-490.1, 5000-1300	0.23	4.88	12.1
335	200	15-1.2, 30-150.2, 8-228.8, 4-567.3, 5000-1300	0.20	6.88	15.3
340	161	15-5.3, 30-37.5, 15-102.4, 30-147.4, 8-237 4-605.6, 5000-609.4, 4-634.4, 5000-1300	0.16	5.12	12.3
345	131	8*-7.2, 15*-28.2, 15-129.4, 8-239.1, 4-761 5000-1219.4, 1-1224, 5000-1245.6, 1-1251.4, 5000-1255.8	0.13	3.72	9.3
350	117	8*-7.2, 15*-28.2, 15-119.4, 8-232.5, 4-853.1 5000-863.1, 4-914.8, 2-1083.3, 5000-1119.5, 1-1195.8 4-1218.8, 5000-1278.6, 1-1300	0.11	3.40	6.9

Exhibit 12 - Table VI

(Page 5 of 5)

**PROPOSED NIGHTTIME DISTANCE TO CONTOURS**

**Radio Disney Sacramento, LLC**

KIID(AM) Sacramento, California

1470 kHz 5 kW-Day/1 kW-Night DA-2 U

Azimuth (deg)	Field at 1 km (mV/m)	Ground Conductivity Data Region Conductivity Data in mS/m followed by distance in km to end of region. * - Indicates Measurement Data	Distance To Contours		
			1000 mV/m (km)	25.0 mV/m (km)	9.6 mV/m (km)
355	121	8*-7.2, 15*-28.2, 15-116, 8-171.5, 4-205.3 8-221.6, 4-429.6, 8-444.6, 4-934, 2-963.9	0.12	3.50	7.1

Measured Conductivity Summary

Measured ground conductivities taken from KIID Proof. See discussion in Engineering Statement and related attachment.

30° : 6-3.22, 10-13.84, 15-27.36

65° : 10-14.48, 7-30.09

110° : 3-2.66, 5-6.44, 6-20.92, 8-31.38

147.5° : 3-6.12, 5-11.27, 8-30.09

152° : 7-3.54, 8-11.27, 10-32.19

175° : 10-16.09, 20-32.19

203° : 4-3.22, 3-7.24, 4-9.66, 7-21.73, 10-32.19

250° : 5-4.35, 4-14.48, 8-31.38

290° : 8-3.22, 5-5.31, 8-16.58, 15-31.38

320° : 5-6.44, 10-12.87, 15-30.90

353° : 8-7.24, 15-28.16

**EXHIBIT 12 - FIGURE 7  
NIGHTTIME COVERAGE CONTOUR**

prepared June 2010 for  
**Radio Disney Sacramento, LLC**  
KIID(AM) Sacramento, California  
Facility ID 65482  
1470 kHz 5 kW-Day/1 kW-Night DA-2 U

Cavell, Mertz & Associates, Inc.  
Manassas, Virginia

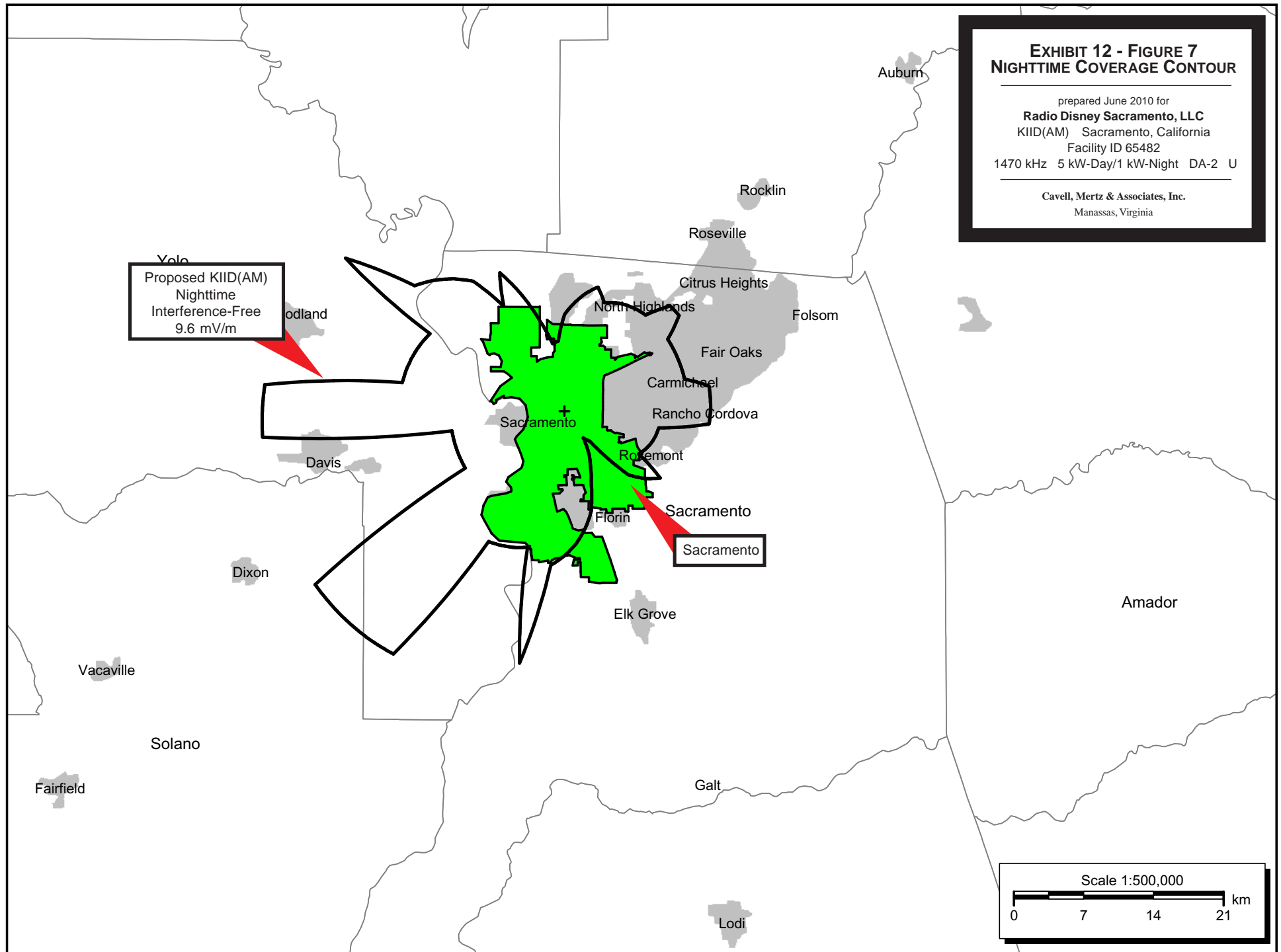


Exhibit 12 - Table VII  
**NIGHTTIME ALLOCATIONS STUDY**

prepared for

**Radio Disney Sacramento, LLC**

KIID(AM) Sacramento, California

Facility ID 65482

1470 kHz 5 kW-Day/1 kW-Night DA-2 U

Night Allocation Protection Report

Call: KIID-Night Prop

Freq: 1470 kHz

SACRAMENTO, CA, US

Hours: N

Lat: 38-35-30 N

Lng: 121-27-46 W

Power: 1.0 kW

Theo RMS: 327.55 mV/m @ 1km @ 1.0 kW

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swch	TL Swch	A (deg)	B (deg)	C (deg)	D (deg)
1	1.000	0.0	0.0	0.0	99.5	0	0	0.0	0.0	0.0	0.0
2	1.180	112.0	90.6	63.5	99.5	0	0	0.0	0.0	0.0	0.0
3	1.510	-73.0	90.6	256.7	99.5	0	0	0.0	0.0	0.0	0.0

Call Letters	Ct	St	City	Azi (deg)	Ang Low (deg)	Ang High (deg)	SWFF (100uV/m)	Req Prot (mV/m)	Permis (mV/m)	Cur Rad (mV/m)	Margin (mV/m)
KNFL.C	US	UT	TREMONTON	64.29	7.53	13.53	53.94	2.739	253.91	252.91	1.01
KNFL.L	US	UT	TREMONTON	64.39	7.53	13.54	54.00	2.742	253.92	252.88	1.04
KION.L	US	CA	SALINAS	183.20	34.35	48.63	290.78	1.413	242.99	241.75	1.24
KKTY.L	US	WY	DOUGLAS	65.96	2.53	6.26	22.01	1.130	256.64	255.28	1.36
KGOE.L	US	CA	EUREKA	316.42	22.51	34.77	191.67	1.181	308.11	302.70	5.41
NEW.A	US	CA	COALINGA	159.56	25.76	38.86	221.30	6.461	145.97	119.06	26.91
KELA.L	US	WA	CENTRALIA-CHEHA	352.78	6.94	12.67	47.86	1.426	148.98	115.59	33.39
XERCN.O/A	MX	BN	TIJUANA	147.65	11.85	11.85	87.17	1.768	101.42	66.35	35.07
XERCN.O/O	MX	BN	TIJUANA	147.65	11.85	11.85	87.17	1.768	101.42	66.35	35.07
NEW.A	US	CA	HURON	153.97	25.85	38.96	222.06	5.594	125.95	83.78	42.17
KBSN.L	US	WA	MOSES LAKE	9.86	6.33	11.76	42.93	2.792	325.15	183.90	141.24
KCNR.L	US	CA	SHASTA	340.45	31.30	45.33	268.06	1.668	311.20	123.95	187.25
KYOS.L	US	CA	MERCED	146.67	41.37	55.61	338.55	1.805	266.54	51.24	215.30
KUTY.L	US	CA	PALMDALE	143.75	13.87	22.89	111.83	6.908	308.85	72.16	236.68
KYYW.L	US	TX	ABILENE	102.46	0.00	1.90	12.80	1.935	756.04	243.08	512.96
CJVB/	CA	BC	Vancouver	354.48	6.51	6.51	47.13	6.299	668.25	118.60	549.65
CJVB.O/	CA	BC	VANCOUVER	354.49	6.51	6.51	47.13	6.300	668.36	118.61	549.75
KENO.L	US	NV	LAS VEGAS	113.74	11.76	19.81	92.06	1.515	822.90	211.85	611.06

Exhibit 12 - Table VII

(Page 2 of 2)

**NIGHTTIME ALLOCATIONS STUDY**

Call Letters	Ct	St	City	Azi (deg)	Ang Low (deg)	Ang High (deg)	SWFF (100uV/m)	Req Prot (mV/m)	Permis (mV/m)	Cur Rad (mV/m)	Margin (mV/m)
KVNR.L	US	CA	SANTA ANA	148.29	11.55	19.50	91.00	1.409	774.08	66.88	707.20
KUTI.L	US	WA	YAKIMA	5.01	7.18	13.03	49.41	0.910	921.42	160.25	761.16
XEUK.O/A	MX	SO	CABORCA	133.72	6.29	6.29	45.15	8.267	915.56	131.95	783.61
XEUK.O/O	MX	SO	CABORCA	133.72	6.29	6.29	45.15	8.267	915.56	131.95	783.61
KHRX.C	US	TX	MARATHON	113.68	0.01	2.83	15.54	3.131	1007.33	222.41	784.92
WMBD.L	US	IL	PEORIA	75.18	0.00	0.00	5.66	1.179	1042.64	253.60	789.04
KWSL.L	US	IA	SIOUX CITY	70.62	0.00	1.49	9.48	2.213	1167.27	254.46	912.81
KTYM.L	US	CA	INGLEWOOD	150.50	12.62	21.07	100.51	2.006	998.03	72.11	925.93
NEW.A	US	AK	SOLDOTNA	329.59	0.00	0.00	2.48	0.594	1196.16	247.04	949.12
NEW.A	US	AK	SOLDOTNA	329.54	0.00	0.00	2.51	0.603	1200.96	247.46	953.50
NEW.A	US	AK	ANCHORAGE	331.39	0.00	0.00	2.39	0.577	1205.60	231.32	974.28