TECHNICAL EXHIBIT
APPLICATION FOR CONSTRUCTION PERMIT
LBI RADIO LICENSE LLC
RADIO STATION KHJ
LOS ANGELES, CALIFORNIA

May 2, 2012

930 KHZ 5 KW-D 5 KW-N U DA-N

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Technical Narrative

The technical exhibit of which this narrative is part has been prepared on behalf of LBI Radio License LLC, licensee of AM broadcast station KHJ in Los Angeles, California. KHJ is licensed as a Class B station for operation on 930 kilohertz with daytime and nighttime power of 5 kilowatts, operating with a non-directional antenna pattern during daytime hours and a directional antenna pattern during nighttime hours. By means of this present application, the licensee proposes to change to a new transmitter site with new non-directional and directional antennas for daytime and nighttime operation, respectively. KHJ proposes to co-locate with existing AM stations KBLA and KYPA. KBLA operates on 1580 kilohertz and KYPA operates on 1230 kilohertz . The daytime and nighttime power will remain at 5 kilowatts but with new operating parameters.

The proposal is classified as a minor change according to 47 CFR 73.3571(a)(2). As a Class B station operating on one of the channels listed in 73.26(a), the proposal satisfies 47 CFR 73.21(a)(2) which permits operation with a nominal power of not less than 0.25 kilowatt nor more than 50 kilowatts at any time. The Federal Aviation Administration has not been notified of the proposal as new tower construction is not proposed.

Proposed Transmitter Location

The proposed KHJ facility will be co-located with existing stations KBLA and KYPA at NAD27 coordinates:

34-05-08 North
118-15-24 West

An aerial (satellite) photograph and map detail of the proposed transmitter location are not included, as it is an existing licensed site. The antenna site plat is shown on Figure 1 for reference.

Nondirectional and Directional Antenna Systems

Tower 1 will be utilized for the daytime nondirectional pattern, producing a horizontal plane radiation efficiency of 285.0 mV/m at one kilometer for one kilowatt reference power taking into account the average ground system radius. Three towers, 1, 2 and 3, will be employed for the nighttime directional antenna pattern. Towers 1, 2 and 3 of the proposed KHJ array are designated as towers 5, 3 and 4 of the KBLA antenna system, respectively, and are unused by KYPA. As indicated on Figure 2, the radiating element for tower 1 is 60.9 meters (200 feet) in height and has an overall height of 62.5 meters (205 feet) above ground level. The radiating elements for tower 2 and 3 are 60.9 meters (200 feet) in height and have an overall height of 63.4 meters (208 feet) above ground level. A summary of specifications for the nighttime directional antenna array is included herein as Figure 3.

The nighttime directional antenna pattern has been calculated in accordance with 47 CFR 73.150 assuming a one-ohm lumped loss resistance at the current loop of each tower in the array. The nighttime standard radiation pattern is shown herein as Figure 8 and is tabulated in Figure 9.

Ground System

The existing ground system at the transmitter site consists of 120 equally-spaced buried copper wire radials surrounding each of the six KBLA towers and extending to the property boundary or to buried transverse copper straps between towers where the radials would otherwise overlap, as well as 14.6 meter square copper ground screens around the tower bases. Its details are on file with the FCC, appearing on Figure 9 of the original KBLA application for license exhibit, file number BL-12763, dated July 31, 1968. Within the property boundaries, the ground system covers an area of 16,390 square meters. As the ground system provides continuous coverage of the entire site from each tower to the property boundaries, the average radius covered by ground system conductors for each tower is 72.2 meters – or 0.224 wavelength at 930 kilohertz.

According to the table of http://www.fcc.gov/fcc-bin/audio/amgnd.html "AM Ground System Correction Factors for Nondirectional AM Stations," the correction for an average ground system radius of 0.224 wavelength is -6.4 mV/m at one kilometer for one kilowatt reference power. Tower 1 as a nondirectional antenna with a standard quarterwave 120-radial ground system would have a calculated horizontal plane radiation efficiency of 291.4 mV/m at one kilometer for one kilowatt reference power, so the corrected efficiency for the ground system at the transmitter site is 285.0 mV/m at one kilometer for one kilowatt reference power. The minimum efficiency requirement of 47 CFR 73.190 Figure 7, 282 mV/m at one kilometer for one kilowatt reference power, will therefore be met by the proposed daytime nondirectional antenna.

Each tower of the proposed KHJ nighttime directional antenna system has the same average ground system radius as tower 1 in nondirectional mode, but the -6.4 mV/m correction is not directly applicable for the directional array. Horizontal plane RMS efficiency is used for analyzing directional antenna radiation. The theoretical RMS efficiency of the proposed nighttime directional antenna pattern, 683.6 mV/m at one kilometer for the proposed 5.0 kilowatt power level, corresponds to a horizontal plane RMS efficiency of 305.7 mV/m at one kilometer for one kilowatt reference power. Therefore, the theoretical efficiency of the proposed nighttime directional antenna pattern exceeds the minimum required efficiency, 282 mV/m, by 23.7 mV/m. As any of the three single towers would meet the minimum requirement if used as a nondirectional antenna alone and the theoretical RMS efficiency of the nighttime pattern exceeds the minimum requirement by a larger margin than is the case for nondirectional operation with any one of the towers, it may be concluded that the proposed KHJ nighttime directional antenna system will meet the minimum efficiency requirements of the FCC Rules.

Blanketing Contour

The provisions of 47 CFR 73.24(g) require that the population within the 1,000 mV/m contour not exceed 1 percent of the population within the 25 mV/m groundwave contour. At the proposed location, during daytime hours, the proposed 1,000 mV/m contour encompasses 6,509 persons or 0.18 percent of the 3,689,477 persons in the 25 mV/m contour. Also, during nighttime hours, the proposed 1,000 mV/m contour encompasses 7,738 persons or 0.18 percent of the 4,399,442 persons in the 25 mV/m contour.

Daytime Coverage

The proposed KHJ daytime field strength contours are depicted on Figure 4 and the existing daytime field strength contours are shown on Figure 5. As indicated on Figure 4, the proposed daytime 5 mV/m contour will completely encompass the city limits of Los Angeles. The Los Angeles limits depicted were obtained from a map contained in the TIGER 2010 U.S. census files.

Daytime Allocation Study

A daytime allocation study was made utilizing ground conductivity from FCC Figure M-3. Daytime field strength contours were calculated in accordance with 47 CFR 73.183. Figure 7 is a tabulation of the data employed in the calculation of daytime contours. Based on this analysis, the proposed KHJ facility will comply with all relevant allocation criteria.

Nighttime Coverage

The proposed KHJ nighttime field strength contours are depicted on Figure 10 and the existing nighttime field strength contours are shown on Figure 11. As can be seen from Figure 10, the proposed nighttime 5 mV/m contour will provide 80.3% percent coverage of the area within the city limits of Los Angeles. As the nighttime interference-free level for KHJ is lower than 5 mV/m, at 3.9 mV/m, the 80% city of license coverage requirement of 47 CFR 73.24(i) will be met by the proposed KHJ facility.

Nighttime Allocation Study

The licensed KHJ facility currently contributes to the 50% RSS limit calculations of two domestic stations, WKY, Oklahoma City, OK and KSEI, Pocatello, ID and eight Mexican allocations. The proposed KHJ nighttime directional antenna pattern reduces the nighttime limits at both domestic stations by at least 10%, as required by footnote 1 of 47 CFR 73.182(q), and there will be no increase in radiation toward any of the eight Mexican allocations. Also, the licensed KHJ facility contributes to the 25% limit calculation of three domestic stations, KTKN, Ketchikan, AK; KYNO, Fresno, CA and KPSI, Palm Springs, CA. The proposed nighttime directional antenna pattern does not increase these limits.

The proposed KHJ facility will afford the required levels of nighttime protection to all stations and international allotments operating on 920 kHz, 930 kHz, and 940 kHz. Figure 12 contains pertinent calculation data to support a conclusion that this proposal comports with all nighttime interference protection requirements.

Environmental Considerations

No tower construction is proposed by KHJ. Space within the existing KBLA transmitter building will be used to house the KHJ transmitting and antenna phasing equipment. No new building construction is proposed

The proposed KHJ operation will be evaluated in terms of both the electric and magnetic field components which will be present at the base of each tower. Using Figures 1 through 4 of Supplement A to OET Bulletin 65, the worst case interpolated distances at which the electric and magnetic fields would fall below ANSI guidelines will be calculated before construction. The areas surrounding the base of each tower will be appropriately restricted with a fence having the required minimum radius unless field measurement data indicates otherwise. The fences will assure that persons

on the property outside the fenced areas will not be exposed to radiofrequency field levels in excess of those recommended by the ANSI. In addition, warning signs will be posted.

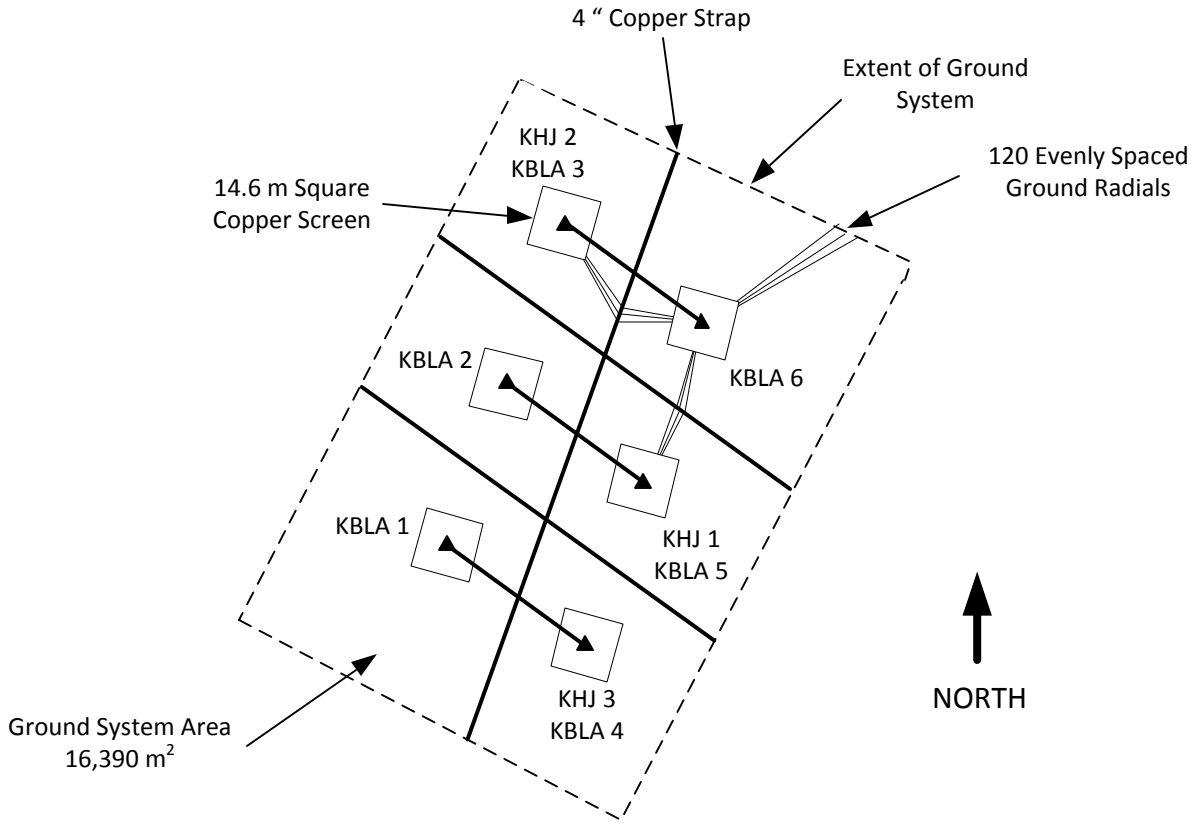
Ronald D. Rackley
du Treil, Lundin & Rackley, Inc.
201 Fletcher Avenue
Sarasota, Florida 34237

(941) 329-6000

May 2, 2012

MAY 2012

Site Coordinates(NAD 27)
34° 05' 08" N
118° 15' 24" W



Site Plat details are on file with the FCC, appearing on Figure 9 of the original KBLA application for license exhibit, file number BL-12763, dated July 31, 1968

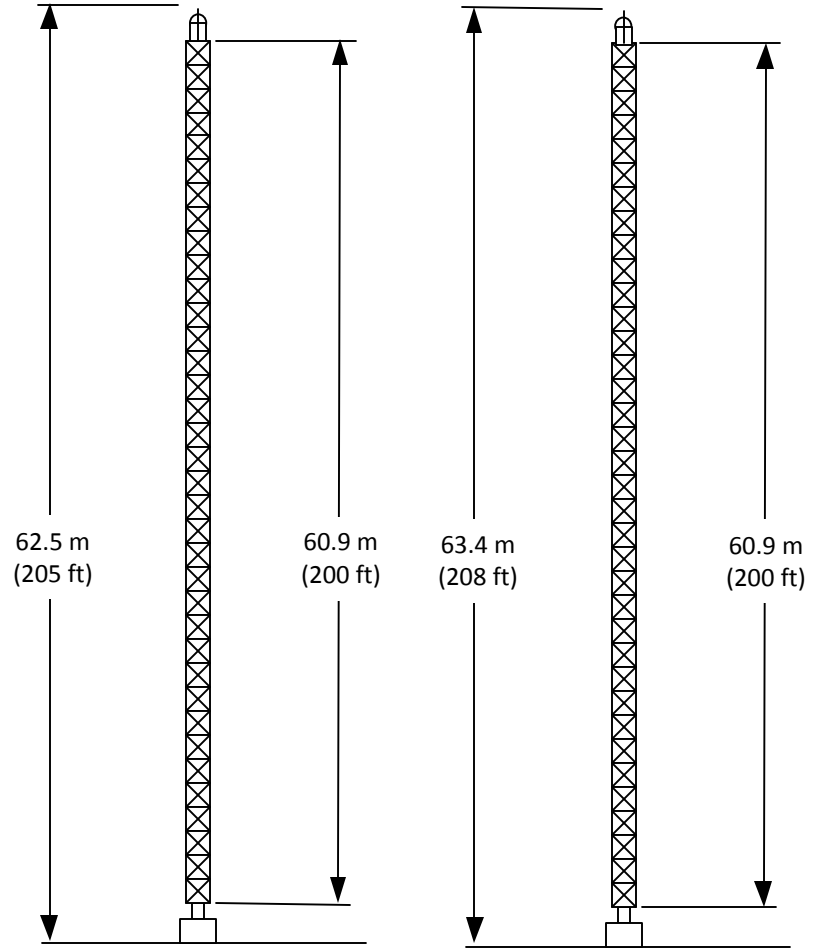
0 50 100
Scale (meters)

ANTENNA SITE PLAT

RADIO STATION KHJ
LOS ANGELES, CALIFORNIA
930 KHZ 5 KW-D 5 KW-N U DA-N

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

MAY 2012



KHJ Tower: 1
ASR: 1014855
(Existing)

KHJ Tower 2: ASR: 1014853
KHJ Tower 3: ASR: 1014854
(Existing)

Not To Scale

Site Coordinates(NAD 27)
34° 05' 08" N
118° 15' 24" W

SKETCH OF ANTENNA ELEMENTS

RADIO STATION KHJ
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Specifications for Nightttime
Directional Antenna Systems

Frequency:	930 kHz
Hours of Operation:	Unlimited
Power:	5 kW(Day) 5 kW(Night)
Number of Towers:	1(Day) 3(Night)
Type: All Towers	Guyed, Uniform Cross-section, Base-insulated
Tower 1 - height above base insulator	60.9 m (200 ft)
Tower 1 - overall height	62.5 m (205 ft)
Tower 2&3 - height above base insulator	60.9 m (200 ft)
Tower 2&3 - overall height	63.4 m (208 ft)

Tower Arrangement:

Tower No.	Spacing (deg.)/(m)	Orientation (deg. True)
1	0.0	0.0
2	75.7/67.8	343.5
3	47.1/42.2	200.0

Nighttime Element Field Parameters:

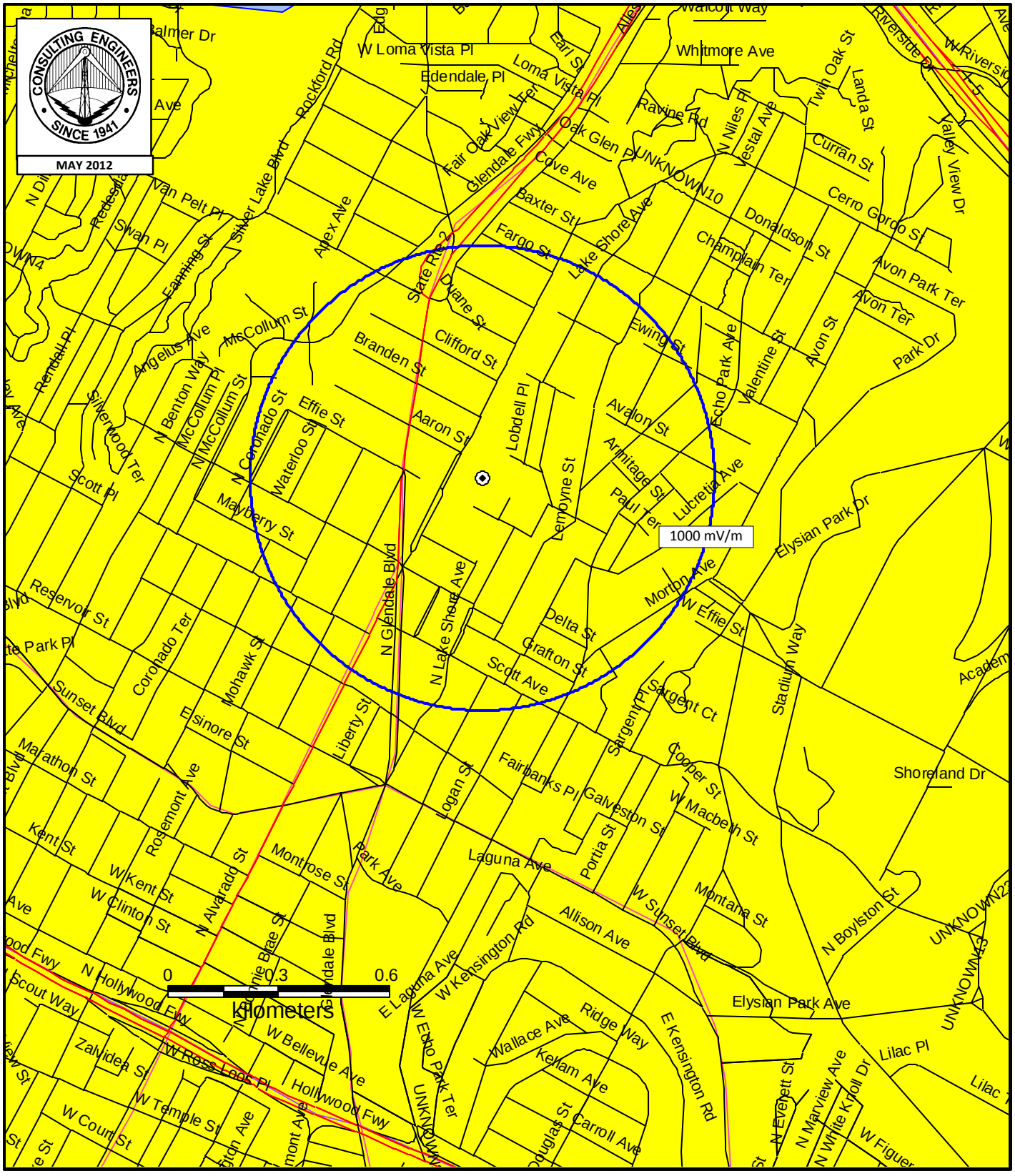
Tower No.	Field Ratio	Phase (degrees)
1	0.484	-129.4
2	1.000	0.0
3	0.143	-131.0

Ground System:

The existing ground system at the transmitter site consists of 120 equally-spaced buried copper wire radials surrounding each of the six KBLA towers and extending to the property boundary or to buried transverse copper straps between towers where the radials would otherwise overlap, as well as 14.6 meter square copper ground screens around the tower bases. Its details are on file with the FCC, appearing on Figure 9 of the original KBLA application for license exhibit, file number BL-12763, dated July 31, 1968. Within the property boundaries, the ground system covers an area of 16,390 square meters. As the ground system provides continuous coverage of the entire site from each tower to the property boundaries, the average radius covered by ground system conductors for each tower is 72.2 meters – or 0.224 wavelength at 930 kilohertz.

Geographic Coordinates of
Center of Antenna Array:

34° 05’ 08” North Latitude
118° 15’ 24” West Longitude



PROPOSED DAYTIME FIELD STRENGTH CONTOURS

RADIO STATION KHJ
LOS ANGELES, CALIFORNIA
930 KHZ 5 KW-D 5 KW-N U DA-N

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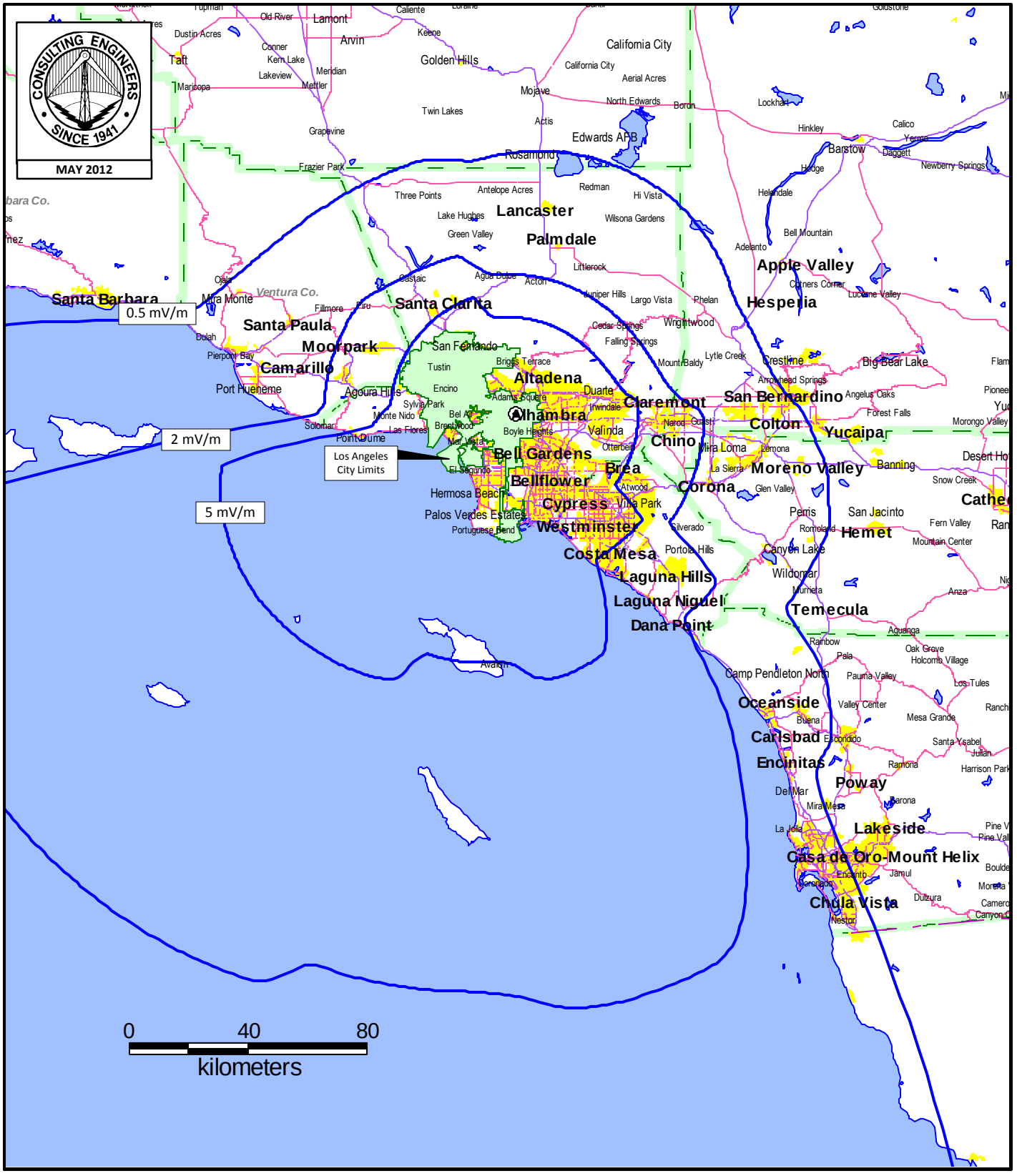

PROPOSED DAYTIME FIELD STRENGTH CONTOURS

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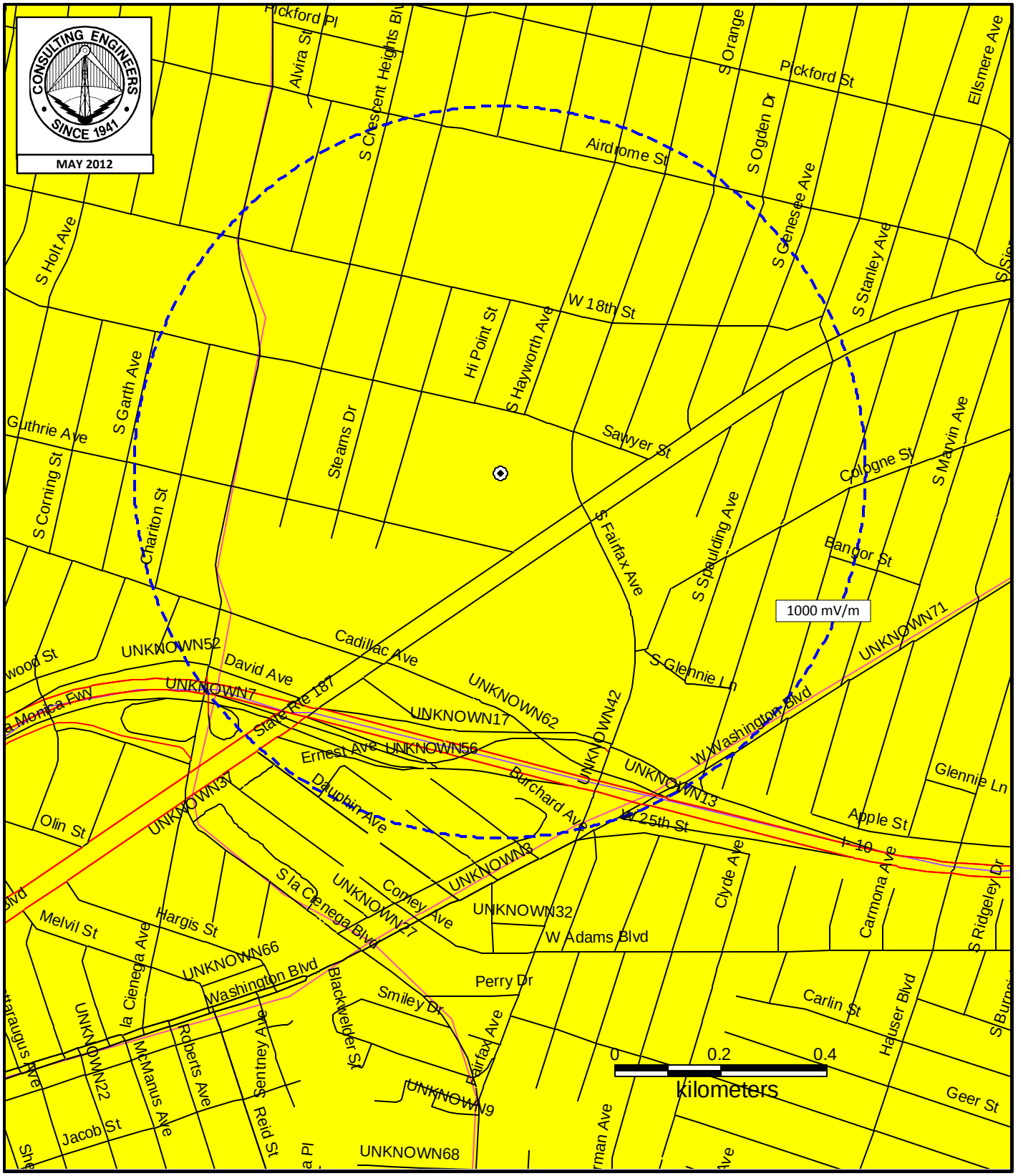

EXISTING DAYTIME FIELD STRENGTH CONTOURS

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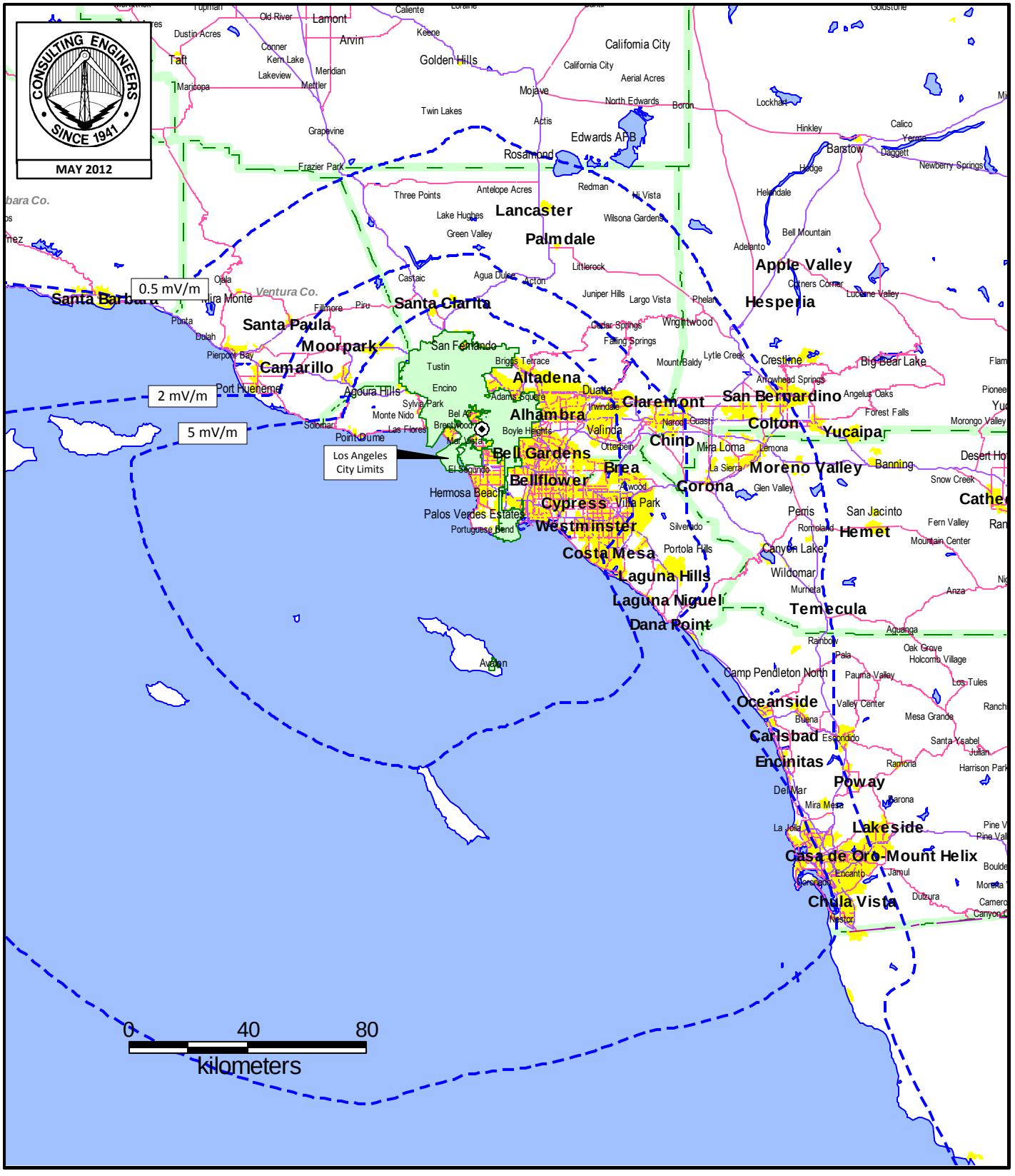

EXISTING DAYTIME FIELD STRENGTH CONTOURS

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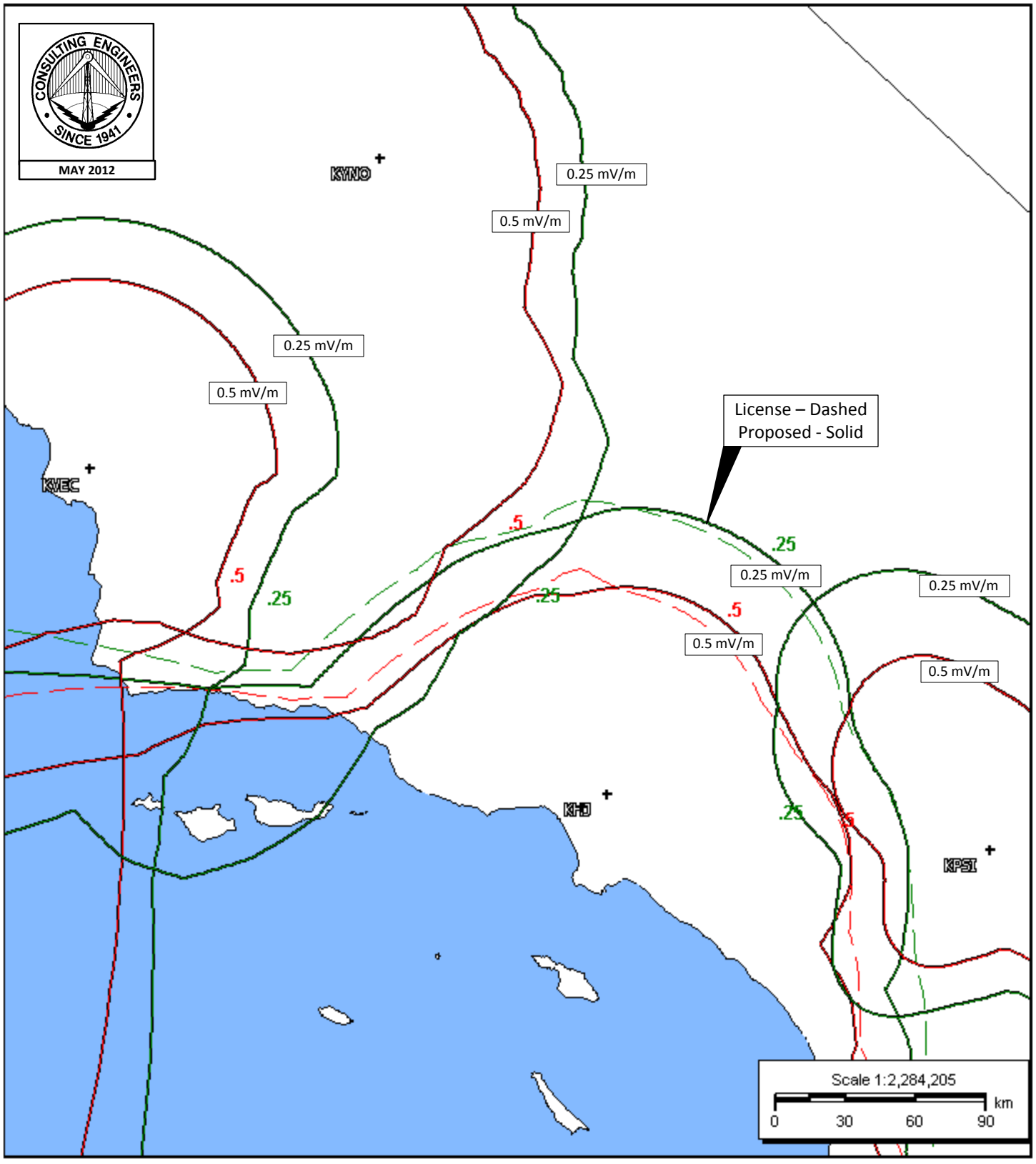

DAYTIME ALLOCATION STUDY

RADIO STATION KHJ
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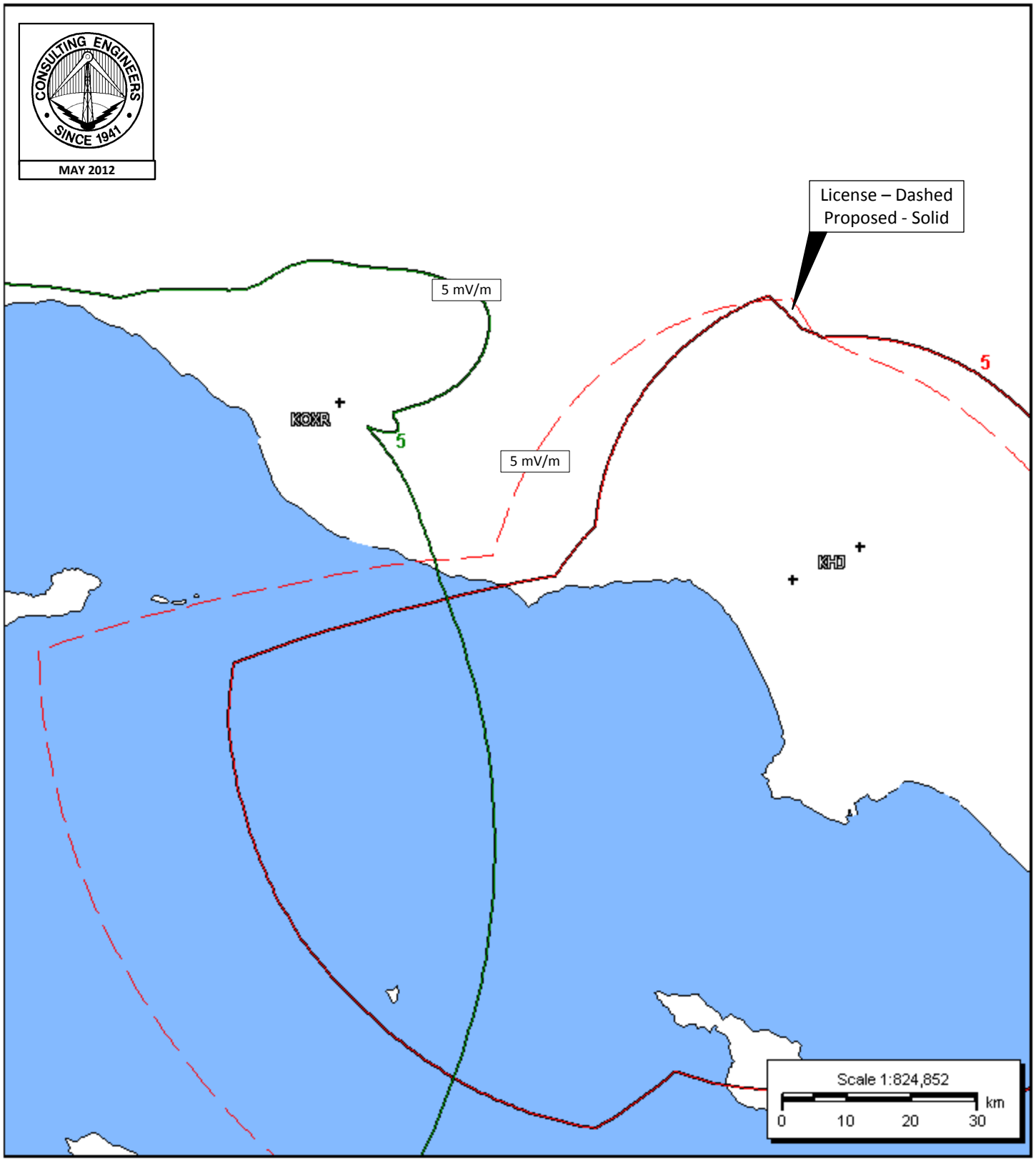

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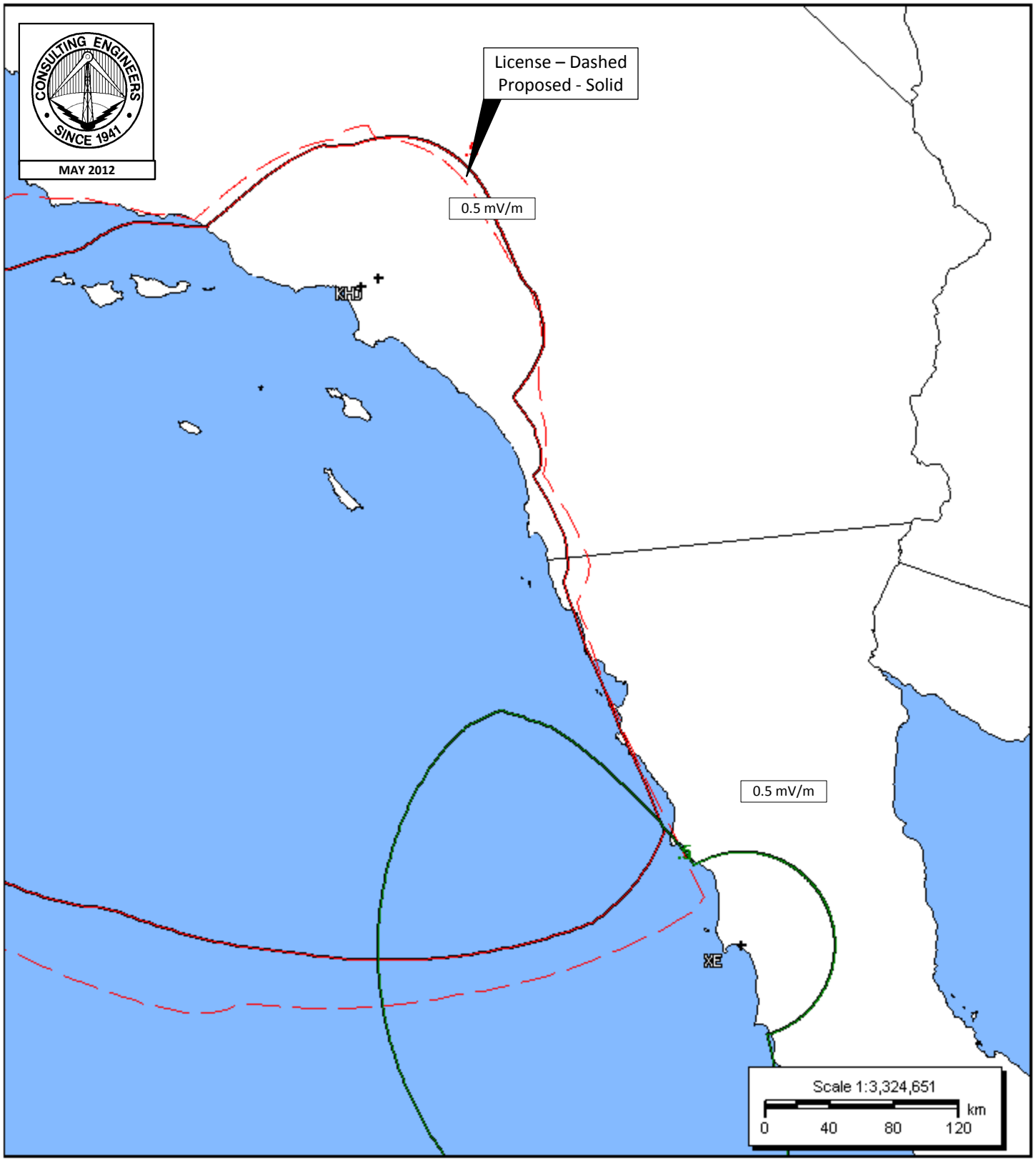

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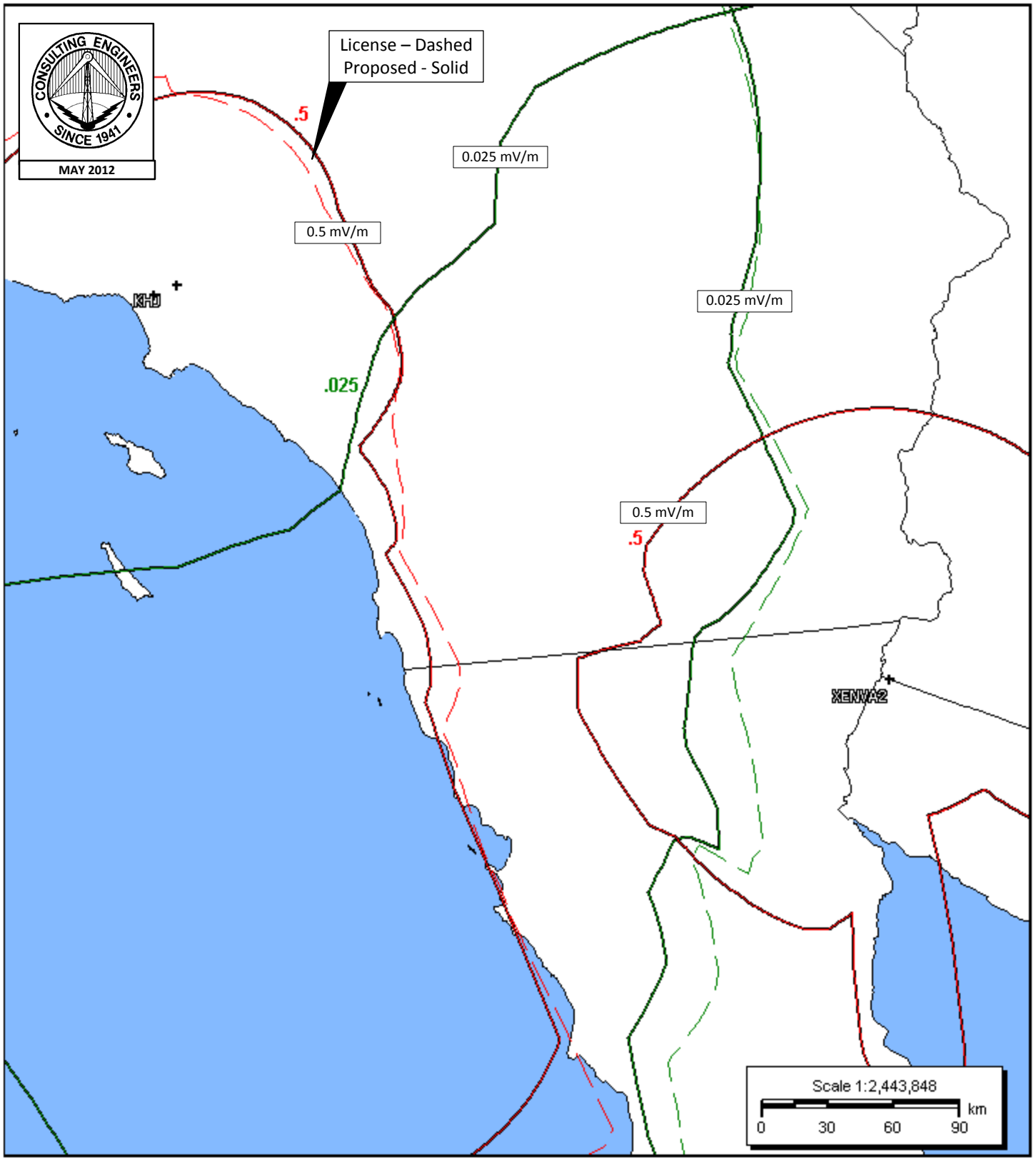

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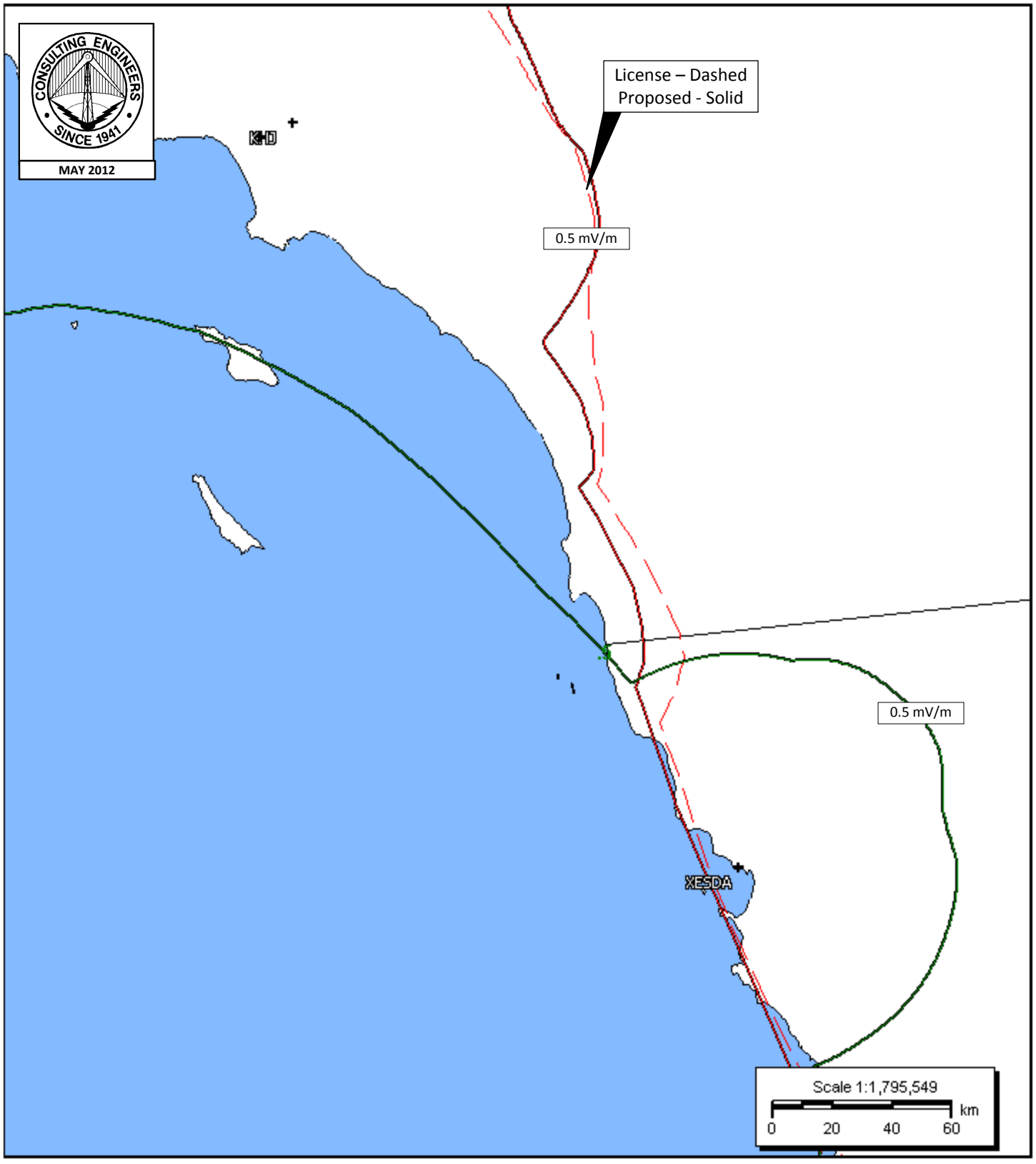

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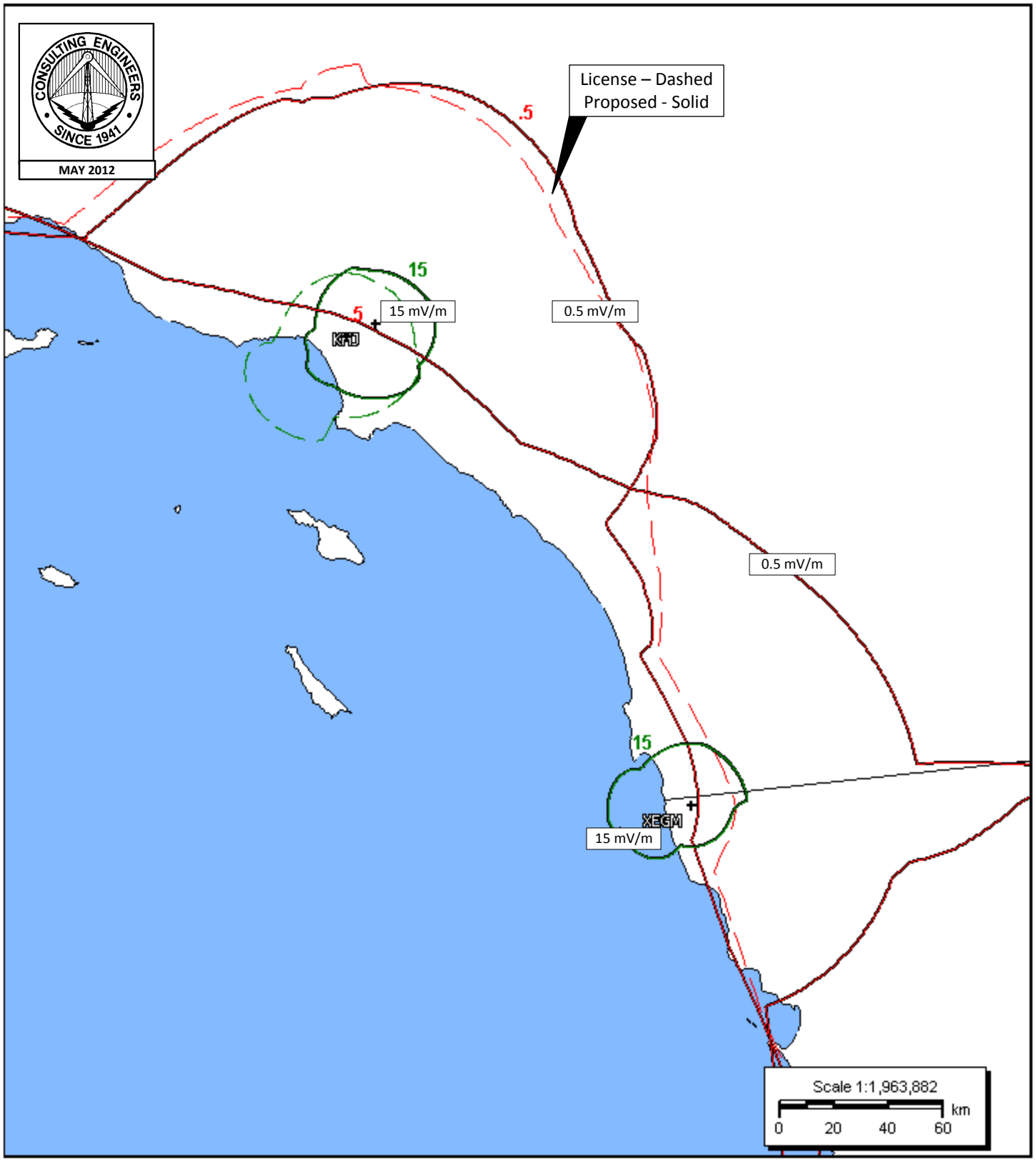

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Tabulation of Data Employed in
Calculation of Groundwave Contours

Reference Station: KHJ, 930 kHz
Location: 34-05-08 N, 118-15-24 W

910 kHz Stations

74.7 km 46.4 mi	KOXR	L	34-16-58 N Azi: 290.9 Location: OXNARD, CA, US	119-07-36 W Class: B	5.0 kW Sched: U File #: BL

DA2 - 677.5 mV/m@1km

920 kHz Stations

174.6 km 108.5 mi	KPSI	L	33-51-29 N Azi: 97.2 Location: PALM SPRINGS, CA, US	116-29-39 W Class: B	5.0 kW Sched: U File #: BL

DA2 - 643.7 mV/m@1km

253.1 km 157.2 mi	KVEC	L	35-17-58 N Azi: 302.8 Location: SAN LUIS OBISPO, CA, US	120-40-24 W Class: B	1.0 kW Sched: U File #: BL

ND2 - 288.1 mV/m@1km

289.3 km 179.7 mi	XESDA		31-52-05 N Azi: 146.9 Location: ENSENADA, BN, MX	116-39-30 W Class: B	2.5 kW Sched: U File #:

ND1 - 244.7 mV/m@1km

930 kHz Stations

377.2 km 234.4 mi	XENVA2		32-28-48 N Azi: 118.3 Location: SAN LUIS RIO COLORAD, SO, MX	114-46-24 W Class: B	1.0 kW Sched: U File #:

ND1 - 304.3 mV/m@1km

940 kHz Stations

285.2 km 177.2 mi	KYNO	L	36-29-20 N Azi: 342.0 Location: FRESNO, CA, US	119-19-33 W Class: B	50.0 kW Sched: U File #: BL

DA2 - 2253.1 mV/m@1km

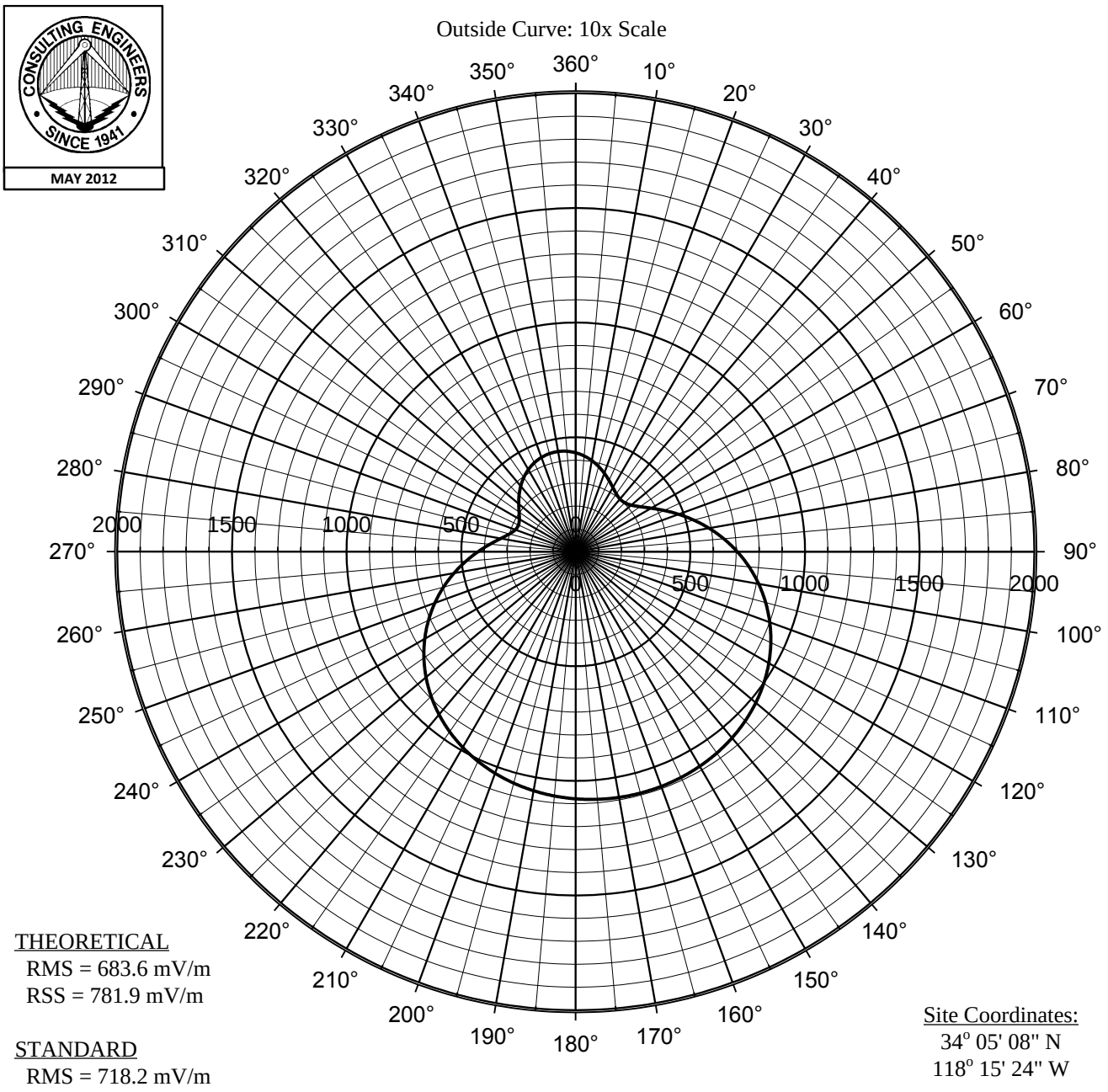
467.3 km 290.4 mi	XE		30-23-46 N Azi: 150.5 Location: SAN QUINTIN, BN, MX	115-52-52 W Class: B	0.25 kW Sched: U File #:

ND - 305.8 mV/m@1km

950 kHz Stations

210.7 km 130.9 mi	XEGM		32-30-57 N Azi: 143.7 Location: TIJUANA, BC, MX	117-01-14 W Class: B	2.5 kW Sched: U File #:

ND1 - 305.5 mV/m@1km



DIRECTIONAL ANTENNA PATTERN

Tower Number	Field Ratio	Phase (deg.)	Spacing (deg.)	Bearing (deg.)	Height (deg.)
1	0.484	-129.4	0.0	0.0	68.0
2	1.000	+0.0	75.7	343.5	68.0
3	0.143	-131.0	47.1	200.0	68.0

PROPOSED NIGHTTIME HORIZONTAL PLANE STANDARD RADIATION PATTERN

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NIGHTTIME RADIATION PATTERN
(Radiation Values at One Kilometer)

Tower Number	Field Ratio	Phase (deg.)	Spacing (deg.)	Bearing (deg.)	Height (deg.)
1	0.484	-129.4	0.0	0.0	68.0
2	1.000	0.0	75.7	343.5	68.0
3	0.143	-131.0	47.1	200.0	68.0

Input Power (kW)	Loop Loss (ohms)	Theo. RMS (mV/m)	Theo. RSS (mV/m)	Q Factor (mV/m)	Standard RMS (mV/m)
5.0	1.0	683.6	781.9	22.4	718.2

Standard Radiation Pattern
(at One Kilometer)

Azimuth Angle (deg)	Elevation Angle in Degrees 0 (mV/m)	5 (mV/m)	10 (mV/m)	15 (mV/m)	20 (mV/m)	25 (mV/m)	30 (mV/m)
0	432	427	415	395	368	337	302
5	419	415	403	384	358	328	295
10	404	400	388	370	346	317	286
15	385	381	371	354	331	305	276
20	364	361	351	336	316	292	266
25	343	340	332	318	300	279	256
30	324	321	314	302	287	269	250
35	308	306	300	290	278	263	247
40	300	298	293	285	275	264	251
45	302	300	296	290	282	272	261
50	316	315	311	306	298	289	279
55	342	341	338	332	325	315	304
60	379	378	374	368	359	348	335
65	425	423	419	411	400	386	370
70	477	475	469	459	446	429	409
75	532	530	523	511	495	474	450
80	590	587	578	564	545	521	492
85	648	644	634	618	595	567	534
90	704	701	689	670	645	613	576
95	759	754	742	721	692	657	616
100	810	805	791	768	737	699	654
105	857	852	837	813	779	737	689
110	900	895	879	853	817	773	722
115	939	933	916	889	851	805	751
120	972	966	949	920	882	834	777
125	1001	995	977	948	908	858	800
130	1025	1019	1001	971	930	879	820
135	1045	1039	1020	990	948	897	837
140	1061	1054	1036	1005	963	911	850
145	1073	1066	1048	1017	975	922	861
150	1081	1075	1056	1025	983	931	869
155	1087	1081	1062	1031	989	936	875
160	1090	1084	1065	1034	992	940	878
165	1090	1084	1065	1035	993	941	879
170	1089	1082	1064	1033	991	939	878
175	1085	1078	1060	1030	988	936	875

Standard Radiation Pattern
(at One Kilometer)

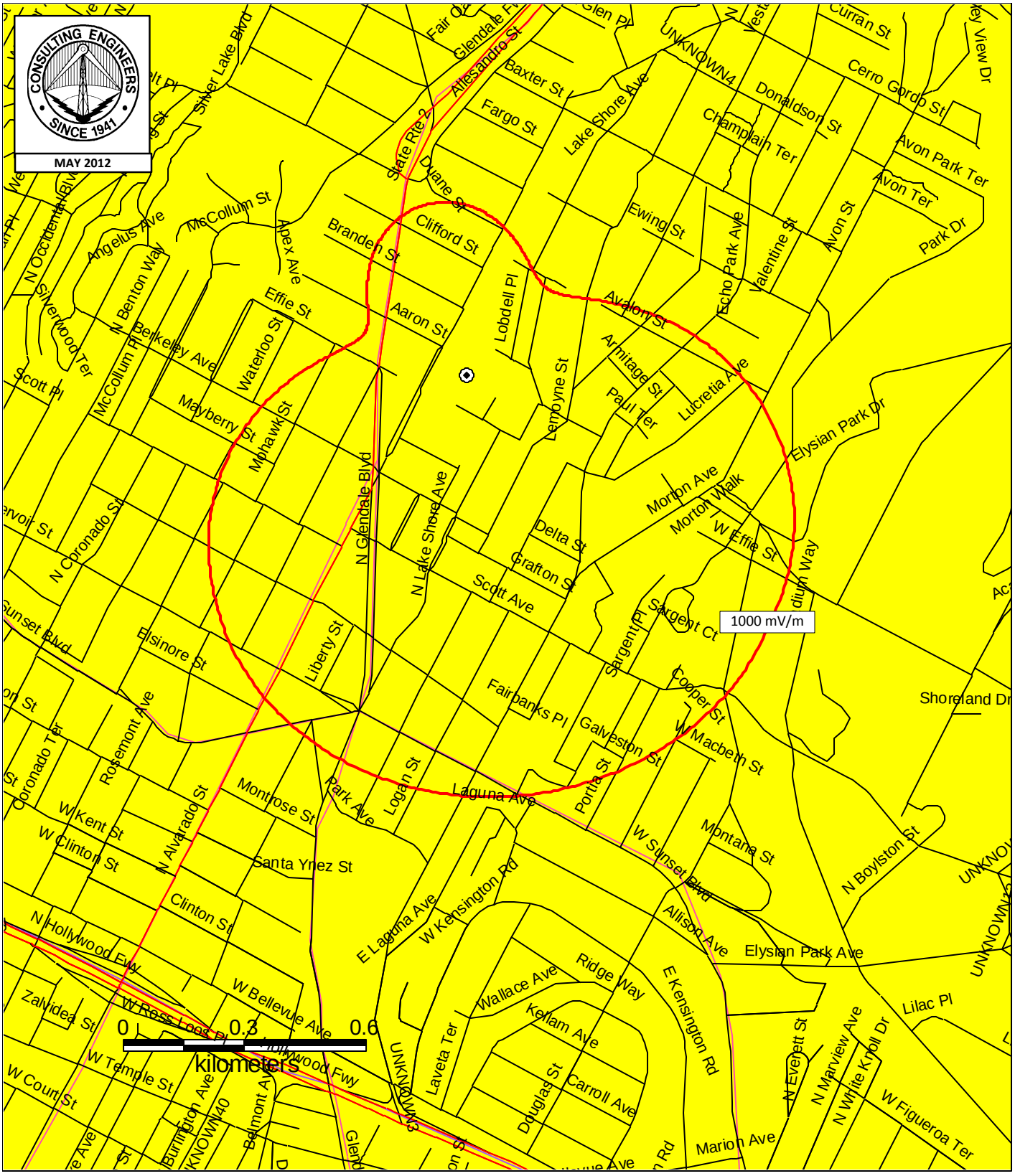
Azimuth Angle (deg)	Elevation Angle in Degrees						
	35 (mV/m)	40 (mV/m)	45 (mV/m)	50 (mV/m)	55 (mV/m)	60 (mV/m)	65 (mV/m)
0	265	230	198	171	150	134	121
5	260	227	196	171	151	136	123
10	254	222	194	171	152	138	125
15	246	218	193	171	154	141	128
20	239	214	192	173	158	144	131
25	234	212	193	176	162	149	135
30	231	212	196	181	168	154	140
35	231	216	202	188	175	161	145
40	238	224	211	198	184	169	151
45	250	237	224	210	195	178	158
50	268	255	241	225	207	188	165
55	291	276	260	242	221	199	173
60	319	302	282	260	237	210	182
65	351	330	306	281	253	223	191
70	386	360	332	302	270	236	200
75	422	392	359	324	287	249	209
80	460	424	386	346	305	262	219
85	497	457	414	369	322	275	228
90	534	489	441	391	340	289	238
95	570	520	467	412	357	301	247
100	603	549	492	433	373	314	255
105	635	577	516	452	389	326	264
110	664	603	537	471	403	337	272
115	691	626	558	487	417	347	279
120	715	647	576	503	429	357	286
125	736	666	592	517	440	365	293
130	754	682	606	529	450	373	298
135	769	696	619	539	459	380	303
140	782	707	629	548	466	386	307
145	792	717	637	555	472	390	311
150	799	724	644	561	477	394	314
155	805	729	648	565	481	397	316
160	808	732	651	568	483	399	317
165	809	733	652	569	484	400	318
170	808	733	652	568	484	400	318
175	806	730	650	567	482	399	317

Standard Radiation Pattern
(at One Kilometer)

Azimuth Angle (deg)	Elevation Angle in Degrees 0 (mV/m)	5 (mV/m)	10 (mV/m)	15 (mV/m)	20 (mV/m)	25 (mV/m)	30 (mV/m)
180	1078	1072	1054	1024	982	931	870
185	1070	1064	1045	1015	974	923	863
190	1059	1053	1035	1005	964	913	853
195	1045	1039	1021	992	951	901	842
200	1029	1023	1005	976	936	886	828
205	1009	1003	986	957	918	869	812
210	986	980	963	935	896	848	792
215	958	953	936	909	871	825	771
220	927	922	906	879	843	798	746
225	892	886	871	846	811	768	718
230	852	847	832	808	775	735	687
235	808	803	789	767	736	698	654
240	760	756	743	722	694	659	618
245	708	704	693	674	648	616	579
250	653	650	640	623	600	572	539
255	596	593	585	570	551	526	497
260	538	536	529	517	500	479	455
265	481	479	473	463	450	433	413
270	425	424	419	412	401	388	372
275	375	373	370	364	356	346	333
280	331	330	328	323	317	309	299
285	299	298	295	291	286	279	271
290	279	278	276	271	265	257	249
295	275	274	270	263	255	246	236
300	283	282	276	268	257	244	231
305	301	299	292	281	267	251	234
310	324	321	313	300	282	263	241
315	349	346	336	321	301	278	253
320	373	369	359	342	319	293	265
325	395	391	379	361	337	308	277
330	413	409	397	378	352	322	288
335	428	423	411	391	364	332	297
340	437	433	420	400	372	340	304
345	443	438	425	405	377	344	307
350	444	439	426	405	378	345	308
355	440	435	423	402	375	342	306

Standard Radiation Pattern
(at One Kilometer)

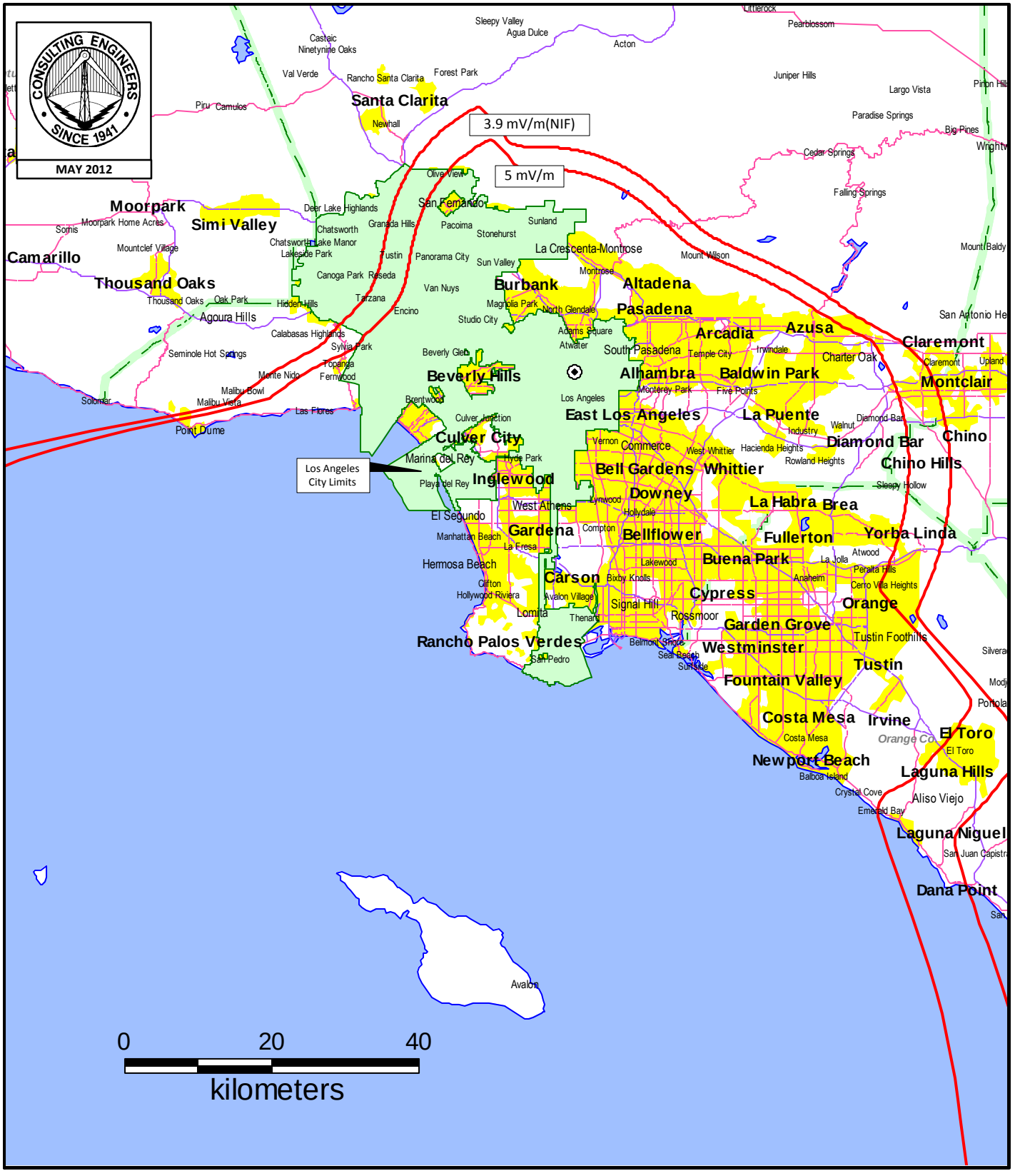
Azimuth Angle (deg)	Elevation Angle in Degrees 35 (mV/m)	40 (mV/m)	45 (mV/m)	50 (mV/m)	55 (mV/m)	60 (mV/m)	65 (mV/m)
180	801	726	646	564	480	397	316
185	794	720	641	559	476	394	314
190	786	712	634	553	471	390	311
195	775	703	626	546	465	385	307
200	762	691	615	537	458	379	303
205	747	677	603	527	449	373	298
210	730	661	589	515	440	365	293
215	710	643	574	502	429	357	287
220	687	623	556	487	417	347	280
225	662	601	537	471	404	337	272
230	634	577	516	453	390	326	265
235	604	550	493	434	374	315	256
240	572	522	469	414	359	303	248
245	537	492	443	393	342	290	239
250	501	460	417	371	325	277	229
255	464	428	390	349	307	264	220
260	427	396	362	327	289	250	210
265	389	363	335	304	272	237	201
270	353	332	308	282	254	224	192
275	319	302	283	261	238	211	183
280	288	274	259	242	222	199	174
285	261	250	238	224	207	188	166
290	240	231	220	208	194	178	158
295	226	216	205	194	182	168	151
300	218	206	195	184	173	160	145
305	217	202	188	176	165	153	139
310	221	201	185	171	158	147	134
315	228	204	184	167	154	142	130
320	236	209	186	166	151	139	127
325	245	215	188	166	149	136	124
330	254	221	192	167	148	134	122
335	261	226	195	168	148	133	121
340	266	230	197	169	148	132	120
345	269	233	199	170	148	132	120
350	270	233	200	171	149	133	120
355	269	232	199	171	149	133	120



PROPOSED NIGHTTIME FIELD STRENGTH CONTOURS

RADIO STATION KHJ
LOS ANGELES, CALIFORNIA
930 KHZ 5 KW-D 5 KW-N U DA-N

du Treil, Lundin & Rackley, Inc. Sarasota, Florida



PROPOSED NIGHTTIME FIELD STRENGTH CONTOURS

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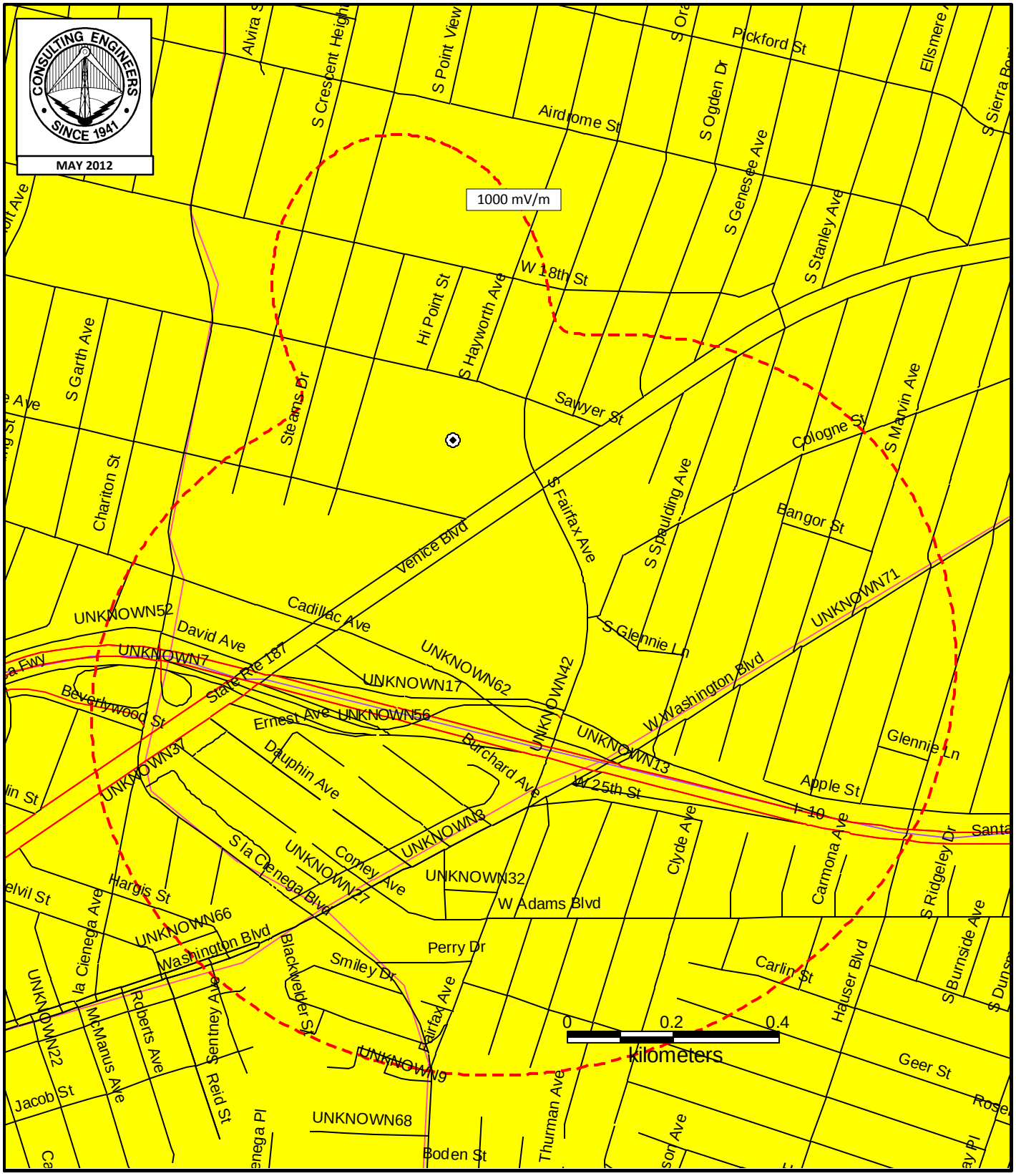

EXISTING NIGHTTIME FIELD STRENGTH CONTOURS

RADIO STATION KHJ
LOS ANGELES, CALIFORNIA
930 KHZ 5 KW-D 5 KW-N U DA-N

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

EXISTING NIGHTTIME FIELD STRENGTH CONTOURS

RADIO STATION KHJ
LOS ANGELES, CALIFORNIA
930 KHZ 5 KW-D 5 KW-N U DA-N

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

TECHNICAL EXHIBIT
APPLICATION FOR CONSTRUCTION PERMIT
RADIO STATION KHJ
LOS ANGELES, CALIFORNIA

930 KHZ 5 KW-D 5 KW-N U DA-N

Nighttime Allocation Study

RSS Limit Calculation To KHJ

Station Information:

Call: KHJ
Freq: 930 kHz
LOS ANGELES, CA, US
Hours: N
Lat: 34-05-08 N
Lng: 118-15-24 W
Power: 5.0 kW
Theo RMS: 683.59 mV/m @ 1km @ 5.0 kW

Standard: FCC Rules (1992 Skywave Propagation Model) [10%]

Contributors:

Call	Freq (kHz)	City	St	Ct	Limit (mV/m)	(%)	RSS Limit (mV/m)
KYNO	0940	FRESNO	CA	US	3.497	100.0	3.497
WKY	0930	OKLAHOMA CITY	OK	US	1.817	51.9	**3.941**
KSEI	0930	POCATELLO	ID	US	1.099	27.9	4.092
XEVSD/A	0930	CD. CONSTITUCION	BC	MX	1.047	25.6	4.223
KLUP	0930	TERRELL HILLS	TX	US	0.968	22.9	4.333
KBAI	0930	BELLINGHAM	WA	US	0.961	22.2	4.438
XEMZQ/A	0930	TEPACHE	SO	MX	0.946	21.3	4.538
XEDS/A	0930	COLIMA	CL	MX	0.932	20.5	4.633
XE/A	0930	HIDALGO DEL PARRA	CH	MX	0.842	18.2	4.709
XERE1/A	0930	SALVATIERRA	GT	MX	0.839	17.8	4.783
KVEC	0920	SAN LUIS OBISPO	CA	US	0.832	17.4	4.855
KBAD	0920	LAS VEGAS	NV	US	0.831	17.1	4.925
XELCM/A	0930	LAZARO CARDENAS	MC	MX	0.807	16.4	4.991

Night Allocation Protection Report

Call: KHJ
Freq: 930 kHz
LOS ANGELES, CA, US
Hours: N
Lat: 34-05-08 N
Lng: 118-15-24 W
Power: 5.0 kW
Theo RMS: 683.59 mV/m @ 1km @ 5.0 kW

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swtch	TL Swtch	A (deg)	B (deg)	C (deg)	D (deg)
1	0.484	-129.4	0.0	0.0	68.0	0	0	0.0	0.0	0.0	0.0
2	1.000	0.0	75.7	343.5	68.0	0	0	0.0	0.0	0.0	0.0
3	0.143	-131.0	47.1	200.0	68.0	0	0	0.0	0.0	0.0	0.0

Call Letters	Ct	St	City	SWFF (100uV/m)	Req Prot (mV/m)	Permis (mV/m)	Cur Rad (mV/m)	Margin (mV/m)
WKY	US	OK	OKLAHOMA CITY	15.27	1.777	581.84	579.92	1.92
50% = 3.313, 25% = 4.395; KARN=2.05 KHJ=1.97 KYFR=1.70 WRVC=1.64 XERE1/A=1.30 XEU/A=1.20 YSTG-A=1.13 XEDS/A=1.11								
KSEI	US	ID	POCATELLO	37.22	2.556	343.29	339.79	3.51
50% = 3.739, 25% = 4.281; KHJ=2.84 WKY=2.43 KBAI=1.26 KOGA=1.24 KXLY=1.10								
KPSI	US	CA	PALM SPRINGS	328.94	3.562	541.38	530.81	10.57
50% = 11.726, 25% = 13.898; KBAD=10.20 KVEC=5.78 XESDA/A=4.87 XEBH/A=4.39 KHJ=3.56								
XERLA/O	MX	BS	SANTA ROSALIA	69.66	14.737	1057.78	1042.33	15.46
50% = 16.374, 25% = 16.374; KHJ=16.37								
XENVA2/O	MX	SO	SAN LUIS RIO CO	150.13	26.135	870.43	805.23	65.19
50% = 26.135, 25% = 27.109; KHJ=26.14 KSEI=7.20								
KYNO	US	CA	FRESNO	224.23	1.950	434.83	331.61	103.22
50% = 4.529, 25% = 5.374; XEQ/A=4.53 KPSZ=2.14 KHJ=1.95								
XEMZQ/A	MX	SO	TEPACHE	66.23	14.096	1064.22	949.09	115.14
50% = 14.096, 25% = 16.616; KHJ=14.10 WKY=5.77 KSEI=4.99 KLUP=4.38								
XE/A	MX	CH	HIDALGO DEL PAR	29.31	6.378	1087.95	968.06	119.89
50% = 13.898, 25% = 14.627; WKY=9.72 KLUP=7.62 KHJ=6.38 XEDS/A=4.56								
XEVSD1/O	MX	BS	VILLA CONSTITUC	51.28	12.297	1199.04	1059.70	139.34
50% = 12.297, 25% = 12.744; KHJ=12.30 XEDS/A=3.35								
XEVSD/	MX	BC	CD. CONSTITUCIO	46.34	11.176	1205.94	1064.24	141.70
50% = 11.176, 25% = 11.736; KHJ=11.18 XEDS/A=3.58								
XEVSD/O	MX	BC	CD. CONSTITUCIO	46.34	11.177	1205.94	1064.24	141.70
50% = 11.177, 25% = 11.736; KHJ=11.18 XEDS/A=3.58								
XEVSD/O	MX	BC	CD. CONSTITUCIO	46.34	11.177	1205.94	1064.24	141.70
50% = 11.177, 25% = 11.736; KHJ=11.18 XEDS/A=3.58								
XEVSD/O	MX	BC	CD. CONSTITUCIO	46.34	11.177	1205.94	1064.24	141.70
50% = 11.177, 25% = 11.736; KHJ=11.18 XEDS/A=3.58								

Call Letters	Ct	St	City	SWFF (100uV/m)	Req Prot (mV/m)	Permis (mV/m)	Cur Rad (mV/m)	Margin (mV/m)
KTKN	US	AK	KETCHIKAN	5.91	0.705	596.28	438.19	158.10
50% = 1.94, 25% = 2.305; KSEI=1.49 KBAI=1.24 CJIB/A=0.84 KHJ=0.70 CJCA/A=0.59								
KVEC	US	CA	SAN LUIS OBISPO	242.51	2.291	472.40	235.83	236.57
50% = 7.493, 25% = 9.165; KIHM=5.37 KPSI=3.73 KXLY=3.67 KBAD=3.23 KSHO=2.49 XESDA/A=2.38 XEBH/A=2.35								
KMPT	US	MT	EAST MISSOULA	21.79	2.953	677.50	393.27	284.22
50% = 11.81, 25% = 11.81; KSEI=11.81								
XENVA2/A	MX	CH	OJINAGA	31.72	7.480	1179.11	873.17	305.93
50% = 14.96, 25% = 16.198; WKY=12.44 KLUP=8.31 KHJ=6.21								
KBAD	US	NV	LAS VEGAS	175.37	2.565	731.30	294.13	437.16
50% = 8.566, 25% = 10.527; KVEC=4.67 KPSI=4.30 KXLY=4.12 KIHM=4.00 XEBH/A=3.42 KVEL=3.30 KQBU=2.88 XESDA/A=2.57								
KBAI	US	WA	BELLINGHAM	16.81	3.061	910.36	443.51	466.84
50% = 11.321, 25% = 12.242; CJCA/A=8.93 KSEI=6.96 CJIB/A=3.45 KMPT=3.13								
CJCA/A	CA	AB	EDMONTON	8.21	1.535	934.71	408.54	526.17
50% = 3.069, 25% = 3.955; KTKN=2.64 WKY=1.57 KSEI=1.47 KBAI=1.33 WAUR=1.08 KOGA=1.06								
CJCA/A	CA	AB	EDMONTON	8.33	1.576	945.94	409.76	536.17
50% = 3.152, 25% = 4.044; KTKN=2.70 KSEI=1.63 WKY=1.55 KBAI=1.36 WAUR=1.05 KOGA=1.03								
WTAD	US	IL	QUINCY	8.32	1.645	988.15	444.49	543.66
50% = 5.117, 25% = 6.58; WKY=4.30 WAUR=2.77 WSFZ=2.25 WFXJ=2.23 KPSZ=1.90 KKIN=1.87								
KOGA	US	NE	OGALLALA	18.45	3.342	905.80	354.26	551.54
50% = 12.537, 25% = 13.368; WKY=12.54 KSDN=4.64								
KOGA	US	NE	OGALLALA	18.45	3.342	905.80	354.26	551.54
50% = 12.537, 25% = 13.368; WKY=12.54 KSDN=4.64								
KGMS	US	AZ	TUCSON	77.77	2.502	1608.90	840.00	768.91
50% = 9.533, 25% = 10.01; XEQ/A=9.53 XENVA2/A=3.05								
WSFZ	US	MS	JACKSON	8.48	2.578	1520.62	661.98	858.64
50% = 7.56, 25% = 10.388; WRVC=4.24 WKY=3.73 WTAD=3.58 WMGR=3.52 WJBY=2.92 WFXJ=2.80 WKCT=2.68 WLSS=2.63 KWOC=2.63 KARN=2.60 WAUR=2.58								
WFXJ	US	FL	JACKSONVILLE	4.80	1.623	1691.84	668.36	1023.48
50% = 5.413, 25% = 6.491; WMAC=5.41 YSTG-A=1.87 UNK-A=1.79 WYAC=1.76 HCCM1-A=1.74								
KSDN	US	SD	ABERDEEN	10.53	2.837	1346.24	306.23	1040.01
50% = 9.267, 25% = 11.346; WKY=8.22 KKIN=4.29 WTAD=3.59 WAUR=3.38 KOGA=3.17 KMPT=2.91								
KIHM	US	NV	RENO	92.30	2.771	1501.05	420.17	1080.88
50% = 9.69, 25% = 11.084; KXLY=6.93 KVEC=4.99 KBAD=4.58 KPSI=3.98 KSHO=3.62								
KVIN	US	CA	CERES	137.07	4.292	1565.79	372.87	1192.92
50% = 15.065, 25% = 17.17; KIHM=12.53 KVEC=8.37 KBAD=6.54 KXLY=5.00								