

Exhibit 40 - Statement A1  
**PROPOSED ANTENNA SYSTEM**  
**SUPPLEMENTAL EXHIBIT**  
prepared for  
**Los Angeles Television Station KCAL LLC**  
KCAL-DT Los Angeles, California  
Facility ID 21422  
Ch. 43 495 kW 951 m

The instant statement (**Exhibit 40 - Statement A1**, March 2006) is provided in an amendment to supplement the pending application for minor modification of KCAL-DT (Ch. 43, Los Angeles, CA, file number BPCDT-20040730AWC). As requested by the Commission's Staff, additional directional antenna relative field data is supplied herein.

By way of background, the pending application specifies an antenna system which is directional in the horizontal plane and employs both electrical and mechanical beamtilt. The antenna's horizontal plane pattern is supplied in the pending application exhibits with and without consideration of the mechanical beamtilt. The mechanical beamtilt results in the angle of maximum radiation being below the radio horizon, and maximum effective radiated power ("ERP") is not achieved at any azimuth towards the radio horizon. As originally supplied, the Form 301 Section III-D "Tech Box" (item 10e) contained the relative field values corresponding to the actual ERP's at the radio horizon which considered the mechanical beamtilt. The maximum relative field value developed in this fashion is 0.986.

Upon informal discussion, FCC Staff requested that the "Tech Box" relative field values be amended to indicate the pattern considering mechanical tilt with the values scaled such that the data reaches a maximum value of 1.0 (even though this distorts the extent of the resulting ERP towards the radio horizon). Therefore, the instant amendment "Tech Box" supplies revised relative field values which are scaled upwards slightly by dividing each original value by 0.986 to normalize the pattern to reach a maximum of 1.000. The original and amended "Tech Box" relative field values are listed in the attached **Exhibit 40 - Supplemental - Table 1**. The scaled antenna pattern is plotted in terms of relative field and dBk in **Exhibit 40 - Supplemental - Figure 1**.

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(page 2 of 4)

**Allocation Status**

The pending application describes a contingent situation regarding station KXLA(TV) (Ch. 44, Rancho Palos Verdes, CA, BLCT-20001220ADU), in that 3.98 percent (population) new interference would be caused. When the KCAL-DT application was originally filed, KXLA was operating from a Construction Permit ("CP," BPCT-20010131ABS) facility that is essentially co-located with those of KCAL-DT. The pending KCAL-DT application showed that interference to the KXLA CP from the proposed KCAL-DT operation would easily comply with the FCC's *de minimis* interference limit. An application for license to cover the KXLA CP facility was pending (BLCT-20040105ACG).

The current situation is that KXLA is now licensed with its new facility (BLCT-20040105ACG) nearly co-located with KCAL-DT, and protection of its formerly licensed facility (BLCT-20001220ADU) is no longer necessary. Therefore the contingency associated with KXLA is removed and should not be a factor in processing the instant application.

For completeness, a review of the allocation situation was conducted to assure that the scaled relative field values would have no impact on the KCAL-DT allocation situation. An OET Bulletin 69 analysis<sup>1</sup> per §73.623(c) was conducted based on the use of a 1.5 km cell size, which provides a finer resolution than the Commission's standard 2 km cell size. **Commission processing using a 1.5 km cell size is requested.** The results showed that any additional interference meets the Commission's 2% / 10% interference limits to all pertinent NTSC and DTV stations, and any new interference to any affected Class A stations does not exceed the 0.5% interference limit. The stations considered are listed as follows.

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<sup>1</sup>Office of Engineering and Technology Bulletin number 69, *Longley-Rice Methodology for Evaluating TV Coverage and Interference*, February 6, 2004. The implementation of OET-69 for this study followed the guidelines of OET-69 as specified therein. **A cell size of 1.5 km was employed.** Comparisons of various results of this computer program (run on a Sun processor) to the Commission's implementation of OET-69 show excellent correlation.

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(page 3 of 4)

Proposed Station			
Channel	Call	City/State	ARN
43	KCAL-DT	LOS ANGELES CA	USERRECORD01

Stations Potentially Affected by Proposed Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
28	KCET	LOS ANGELES CA	0.6	LIC	BLET	-19820607LE
40	KTBN-TV	SANTA ANA CA	0.5	LIC	BLCT	-19830418KH
41	KLCS	LOS ANGELES CA	0.5	APP	BXPET	-20041203AFI
42	KWHY-DT	LOS ANGELES CA	0.1	PLN	DTVPLN	-DTVP1183
42	KWHY-TV	LOS ANGELES CA	1.6	CP MOD	BMPCT	-20000428ABX
42	KESQ-TV	PALM SPRINGS CA	155.6	LIC	BLCT	-20050727AHL
43	NEW	BRAWLEY CA	266.6	ADD	BPRM	-20000717ACQ
43	KGMC	CLOVIS CA	300.8	LIC	BLCT	-20010822AAV
43	KGMC	CLOVIS CA	300.8	CP	BPCT	-20030214ABD
43	KBOP-CA	SAN DIEGO CA	199.8	LIC	BLTTA	-20041008ABL
43	KBOP-CA	SAN DIEGO CA	199.8	APP	BPTTA	-20050725ADK
43	KSKT-CA	SAN MARCOS CA	169.2	LIC	BLTT	-19941201JC
43	KTSB-LP	SANTA BARBARA CA	150.1	CP	BPTTL	-20010706ABG
43	K43FO	LAS VEGAS NV	341.6	LIC	BLTTA	-20040511ABI
44	KHIZ	BARSTOW CA	83.2	CP	BPCDT	-19991028ACX
44	KHIZ-DT	BARSTOW CA	83.2	PLN	DTVPLN	-DTVP1254
44	KXLA	RANCHO PALOS VERDES CA	0.1	LIC	BLCT	-20040105ACG
44	KXLA	RANCHO PALOS VERDES CA	0.1	CP MOD	BMPCT	-20031128AAV
45	KSKJ-CA	VAN NUYS CA	37.7	APP	BSTA	-20050714ACK
45	KSKJ-CA	VAN NUYS CA	37.7	APP	BPTTA	-20050714ACI
45	KSKJ-CA	VAN NUYS CA	37.7	APP	BSTA	-20050801CEA
46	KFTR-TV	ONTARIO CA	0.1	LIC	BLCT	-20050217AAG
50	KOCE-TV	HUNTINGTON BEACH CA	0.1	LIC	BLET	-20040617AAC

Regarding Class A station protection, note that the licensed KCAL-DT is a “non-checklist” expansion (*i.e.*, “maximization”) facility which causes existing interference to KBOP-CA (BLTTA-20041008ABL, Ch. 43, San Diego, CA). This existing interference came about since the licensed KCAL-DT facility was authorized prior to November, 1999 when the Class A Television service was established. The OET Bulletin 69 analysis results below show that the instant proposal would not increase interference to KBOP-CA above the existing situation.

Analysis of LICENSED KCAL-DT towards KBOP-CA

Percent new DTV interference without proposal:	0.0	BLTTA-20041008ABL
Percent new DTV interference with proposal:	3.1	BLTTA-20041008ABL

Analysis of PROPOSED KCAL-DT towards KBOP-CA

Percent new DTV interference without proposal:	0.0	BLTTA-20041008ABL
Percent new DTV interference with proposal:	3.1	BLTTA-20041008ABL

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(page 4 of 4)

**Certification**

The undersigned hereby certifies that the foregoing statement was prepared by him or under his direction, and that it is true and correct to the best of his knowledge and belief.

Joseph M. Davis, P.E.  
March 9, 2006

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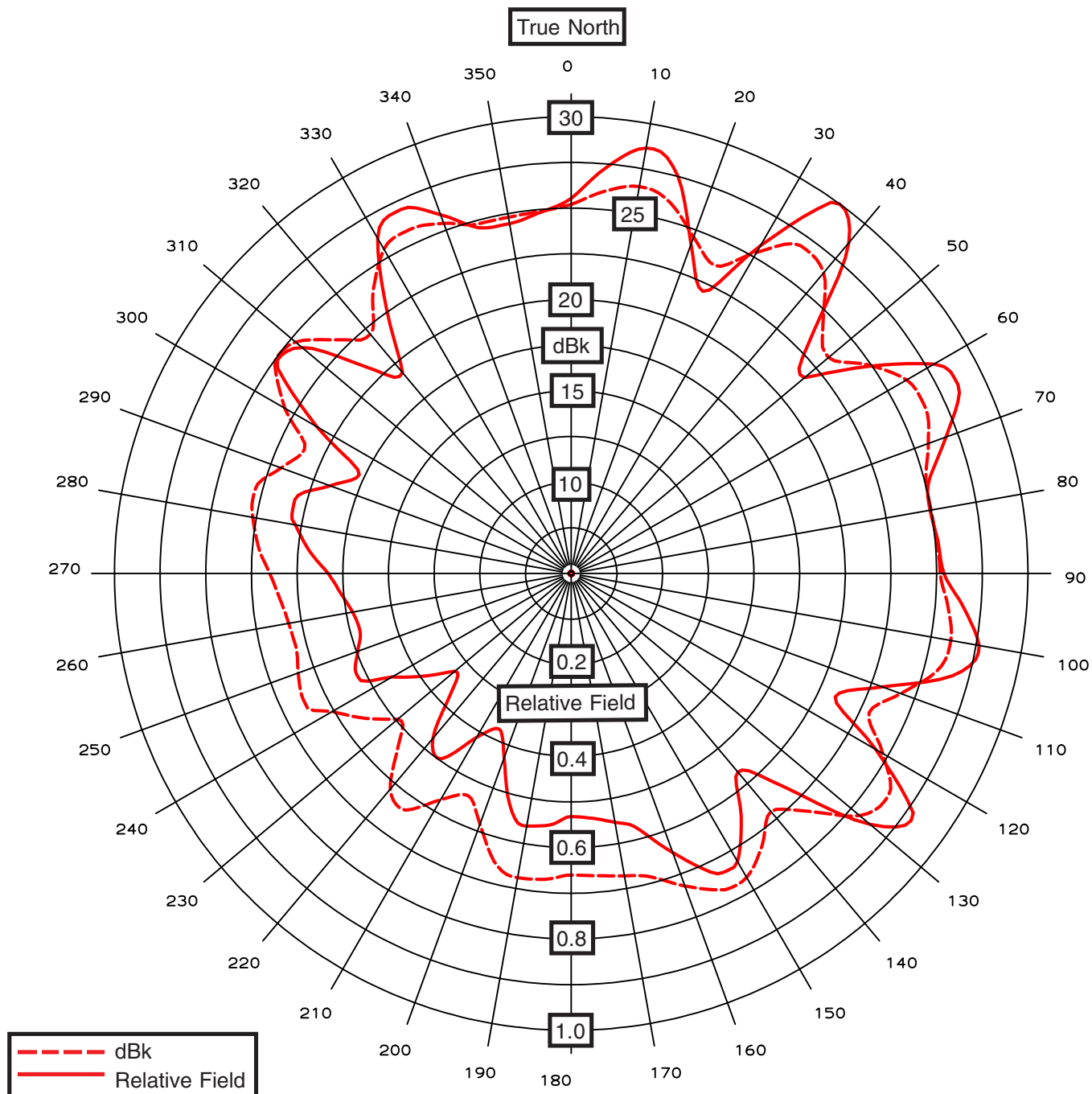
List of Attachments

Table 1	Antenna Pattern Relative Field
Figure 1	Horizontal Plane Radiation Pattern Towards Radio Horizon (Normalized)

Exhibit 40 - Supplemental - Table 1  
**ANTENNA PATTERN RELATIVE FIELD**  
**SUPPLEMENTAL EXHIBIT**

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<u>Bearing</u> <u>°True</u>	<u>Original</u> <u>Relative</u> <u>Field</u>	<u>Normalized</u> <u>Relative</u> <u>Field</u>	<u>Bearing</u> <u>°True</u>	<u>Original</u> <u>Relative</u> <u>Field</u>	<u>Normalized</u> <u>Relative</u> <u>Field</u>
0	0.810	0.822	220	0.464	0.471
10	0.933	0.946	230	0.327	0.332
20	0.756	0.767	240	0.447	0.453
30	0.817	0.829	250	0.490	0.497
40	0.932	0.945	260	0.479	0.486
50	0.658	0.667	270	0.525	0.532
60	0.904	0.917	280	0.605	0.614
70	0.861	0.873	290	0.554	0.562
80	0.787	0.798	300	0.634	0.643
90	0.805	0.816	310	0.759	0.770
100	0.895	0.908	320	0.567	0.575
110	0.715	0.725	330	0.835	0.847
120	0.759	0.770	340	0.824	0.836
130	0.842	0.854	350	0.767	0.778
140	0.560	0.568			
150	0.718	0.728			
160	0.641	0.650			
170	0.546	0.554			
180	0.525	0.532			
190	0.553	0.561			
200	0.423	0.429			
210	0.408	0.414			
				<u>Extra Radials</u>	
			36	0.986	1.000
			126	0.907	0.920
			216	0.492	0.499
			306	0.783	0.794



**EXHIBIT 40 - SUPPLEMENTAL  
FIGURE 1  
HORIZONTAL PLANE RADIATION PATTERN  
TOWARDS RADIO HORIZON  
NORMALIZED TO 1.000 MAXIMUM  
CONSIDERING MECHANICAL BEAM TILT  
(1.0 DEGREE AT 217 DEGREES TRUE)**

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**Cavell, Mertz & Davis, Inc.**  
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