Comprehensive Engineering Exhibit
Booster Application Amendment
KBIG-1; BNPFTB-20140624AAH

This application seeks to amend the pending application for a broadcast booster station sharing a common antenna with concurrently filed applications of co-owned stations KOST, KRRL, KBIG, and KIIS-FM, each a "super-powered" FM station Class B facility at Los Angeles, California. This amendment specifies a new location, antenna pattern, and power.

The proposed location is an existing structure[1] that supports the booster facility of KLVE-FM1[2], BLFTB - 20131025AEF. No changes are to be made to this existing structure and the 4 meter overall height will not change. The planned antenna is of the same type and configuration as KLVE-FM1, a horizontally stacked pair of vertically oriented Kathrein-Scala CL-FM log periodic directional antenna, except the array will be rotated to 60°T as compared to the 45°T employed for KLVE-FM1. In **Figure 1** an image of the existing support structure is given, in which the existing KLVE-FM1 antenna can be seen. The planned mounting location for the proposed antenna is more than 1 wavelength away from the existing antenna to prevent interaction between antennas, approximately at the location of the closer, to the camera, support leg of the structure as seen in **Figure 1**.

The relevant class maximum equivalent ERP was calculated by the FCC "FM Super-Powered Maximum Digital ERP Calculator" for the subject stations and is given in **Figure 2.** The distance to primary stations predicted service contour was employed to produce the contour mapped in **Figure 3**, as well as the booster station predicted service contour which is also presented in **Figure 3**. The data for the proposed antenna pattern is presented in **Figure 4a-4c.**

It can be seen in **Figure 3** that the 54 dBu predicted service contour of the proposed booster station is encompassed within the primary station's 54 dBu predicted service contour, as determined by the V-Soft Probe 4 computer program using 72 radials, over 30 second terrain data for all facilities.

While the proposed antenna system is to be located in a controlled access area at a rugged mountain local, due to the complexity of the surrounding RF environment, applicant will take power density measurements prior to filing of an application for license, demonstrating compliance with 73 CFR 1.1306.

[1] N34º19', 48", W118º 35' 56", NAD27
[2] KSCA-FM1 is combined into the same antenna as KLVE-FM1

Figure 1- Antenna Support Structure

Figure 2 - Equivalent ERP for Facility Class

KRRL
File No. BMLH-19921021KA
LOS ANGELES, CA
Facility ID Number: 35022
Station Class: B
Analog ERP: 43.0000 kW
HAAT: 887.0 meters
Analog class maximum ERP = 0.882 kW, for 887.0 meters HAAT and 60 dBu at 52.2 km distance (Class B reference distance).

KIIS-FM
File No. BLH-5361
LOS ANGELES, CA
Facility ID Number: 19218
Station Class: B
Analog ERP: 8.0000 kW
HAAT: 902.0 meters
Analog class maximum ERP = 0.851 kW, for 902.0 meters HAAT and 60 dBu at 52.2 km distance (Class B reference distance).

KOST
File No. BLH-19930831KD
LOS ANGELES, CA
Facility ID Number: 34424
Station Class: B
Analog ERP: 12.5000 kW
HAAT: 949.0 meters
Analog class maximum ERP = 0.768 kW, for 949.0 meters HAAT and 60 dBu at 52.2 km distance (Class B reference distance).

KBIG
File No. BLH-20060113ABU
LOS ANGELES, CA
Facility ID Number: 6360
Station Class: B
Analog ERP: 65.0000 kW
HAAT: 928.0 meters
Analog class maximum ERP = 0.804 kW, for 928.0 meters HAAT and 60 dBu at 52.2 km distance (Class B reference distance).

Figure 3 – Contour Map

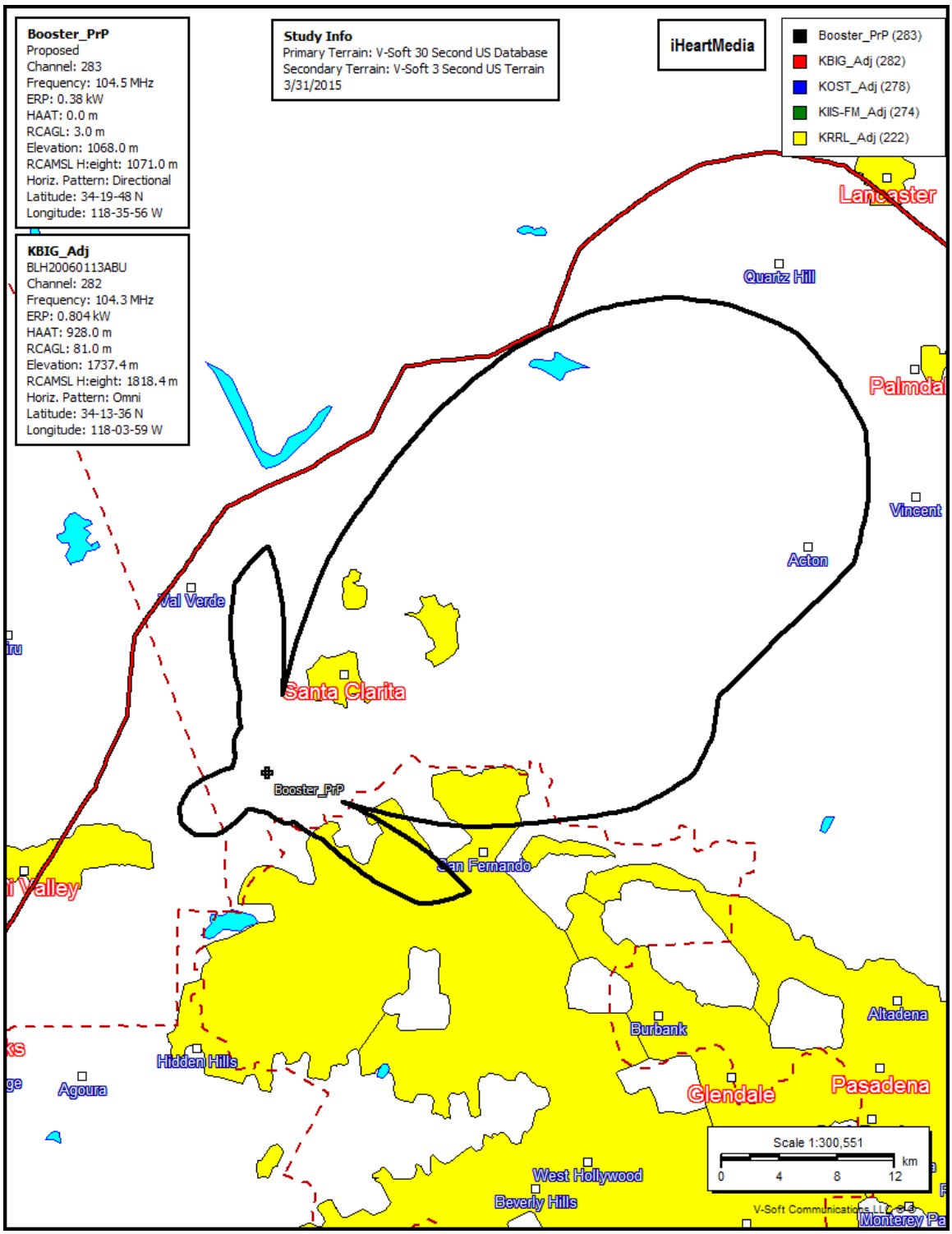

Figure 4a Booster Antenna Details

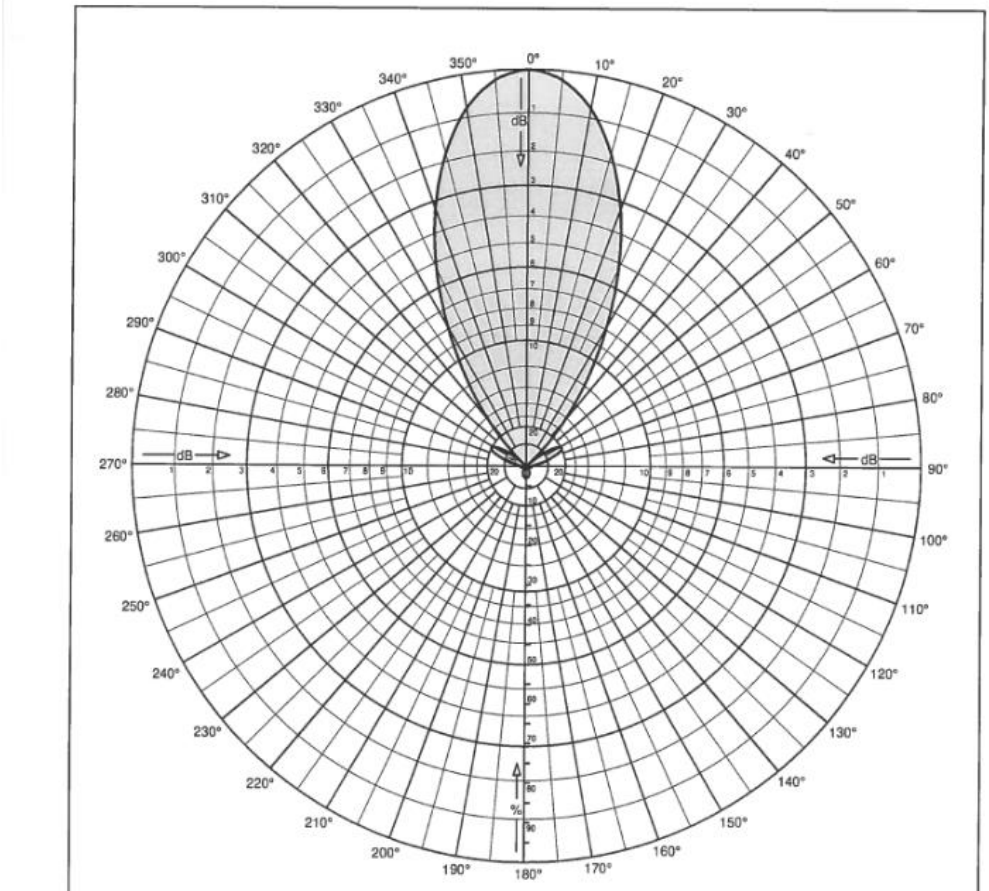

Figure 4b- Booster Antenna Details

KATHREIN
SCALA DIVISION

Two CL-FM Log-periodic Antennas
Oriented at 0 degrees
Any single channel 88-108 MHz
gAIN: 9.5 dBd (x 8.9)

Vertical polarization
Horizontal Stacked 0.67 wavelength
Horizontal plane Pattern

Angle	Field	Rel.dB	dBd	PwrMult	Angle	Field	Rel.dB	dBd	PwrMult
0	1.000	0.00	9.50	8.91	180	0.030	-30.46	-20.96	0.01
5	0.977	-0.20	9.30	8.50	185	0.029	-30.60	-21.10	0.01
10	0.915	-0.77	8.73	7.47	190	0.028	-31.05	-21.55	0.01
15	0.815	-1.78	7.72	5.91	195	0.026	-31.82	-22.32	0.01
20	0.689	-3.23	6.27	4.23	200	0.023	-32.93	-23.43	0.00
25	0.549	-5.20	4.30	2.69	205	0.019	-34.47	-24.97	0.00
30	0.405	-7.85	1.65	1.46	210	0.015	-36.56	-27.06	0.00
35	0.269	-11.42	-1.92	0.64	215	0.011	-39.44	-29.94	0.00
40	0.149	-16.53	-7.03	0.20	220	0.010	-40.00	-30.50	0.00
45	0.051	-25.87	-16.37	0.02	225	0.010	-40.00	-30.50	0.00
50	0.023	-32.92	-23.42	0.00	230	0.010	-40.00	-30.50	0.00
55	0.071	-22.92	-13.42	0.05	235	0.010	-40.00	-30.50	0.00
60	0.097	-20.24	-10.74	0.08	240	0.010	-40.00	-30.50	0.00
65	0.099	-20.07	-10.57	0.09	245	0.010	-40.00	-30.50	0.00
70	0.075	-22.47	-12.97	0.05	250	0.012	-38.51	-29.01	0.00
75	0.049	-26.19	-16.69	0.02	255	0.013	-37.47	-27.97	0.00
80	0.024	-32.37	-22.87	0.01	260	0.014	-36.81	-27.31	0.00
85	0.015	-36.44	-26.94	0.00	265	0.015	-36.44	-26.94	0.00
90	0.015	-36.32	-26.82	0.00	270	0.015	-36.32	-26.82	0.00
95	0.015	-36.44	-26.94	0.00	275	0.015	-36.44	-26.94	0.00
100	0.014	-36.81	-27.31	0.00	280	0.024	-32.37	-22.87	0.01
105	0.013	-37.47	-27.97	0.00	285	0.049	-26.19	-16.69	0.02
110	0.012	-38.51	-29.01	0.00	290	0.075	-22.47	-12.97	0.05
115	0.010	-40.00	-30.50	0.00	295	0.099	-20.07	-10.57	0.09
120	0.010	-40.00	-30.50	0.00	300	0.097	-20.24	-10.74	0.08
125	0.010	-40.00	-30.50	0.00	305	0.071	-22.92	-13.42	0.05
130	0.010	-40.00	-30.50	0.00	310	0.023	-32.92	-23.42	0.00
135	0.010	-40.00	-30.50	0.00	315	0.051	-25.87	-16.37	0.02
140	0.010	-40.00	-30.50	0.00	320	0.149	-16.53	-7.03	0.20
145	0.011	-39.44	-29.94	0.00	325	0.269	-11.42	-1.92	0.64
150	0.015	-36.56	-27.06	0.00	330	0.405	-7.85	1.65	1.46
155	0.019	-34.47	-24.97	0.00	335	0.549	-5.20	4.30	2.69
160	0.023	-32.93	-23.43	0.00	340	0.689	-3.23	6.27	4.23
165	0.026	-31.82	-22.32	0.01	345	0.815	-1.78	7.72	5.91
170	0.028	-31.05	-21.55	0.01	350	0.915	-0.77	8.73	7.47
175	0.029	-30.60	-21.10	0.01	355	0.977	-0.20	9.30	8.50

Figure 4c- Booster Antenna Details