

**Engineering Exhibit**  
**Multiple Ownership Study**  
 prepared for  
**Cameron Broadcasting, Inc.**

This engineering statement has been prepared on behalf of *Cameron Broadcasting, Inc.* (“*Cameron*”), in support of its application to modify KLUK(FM), Facility ID 8385, Channel 250, Needles, CA. The modification involves expansion of the KLUK service contour by increasing from Class C1 to Class C at the currently licensed site. Including KLUK, *Cameron* is the licensee of six radio stations in the region as listed below.

**Cameron Radio Stations**

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Call Sign	Ch/Freq.	Fac ID	Location
KLUK(FM)	250C	8385	Needles, CA
KFLG-FM	234C0	55495	Big River, CA
KNKK(FM)	296C1	78087	Needles, CA
KAAA(AM)	1230	55492	Kingman, AZ
KFLG(AM)	1000	65676	Bullhead City, AZ
KZZZ(AM)	1490	8387	Bullhead City, AZ

The FCC requires evaluation of radio station multiple ownership issues utilizing existing Arbitron and BIA market data for markets with established geographic boundaries and a separate “interim” means for evaluating radio station multiple ownership issues beyond established radio market geographic boundaries (FCC 03-127, released July 2, 2003).

Except for KFLG-FM, the principal communities for all of the stations listed are not home to any Arbitron Metro area, therefore the interim contour overlap method will be employed herein. A “market” is defined as the area encompassed by the overlapping principal community contours of the radio stations in which an entity is proposing to have common ownership interest or attribution.

There are three separate areas of principal community contour overlap of the various *Cameron* stations, resulting in three markets requiring analysis. As shown on Figure 1, Market A is created by the overlap of three FM stations (KLUK, KNKK, and KFLG-FM) and two AM stations

(KFLG and KZZZ). Market B is created by the overlap of two FM stations (KLUK and KNKK) and three AM stations (KAAA, KFLG, and KZZZ). Market C created by the overlap of three FM stations (KLUK, KNKK, and KFLG-FM) and two AM stations (KAAA and KFLG).

For simplicity of analysis, Figure 2 shows the principal community contours of nearby FM stations which overlap that of KLUK. The KLUK principal community contour is common to all three markets (“A”, “B”, and “C”). The associated Table 1 shows that there are a total of 23 radio stations that provide principal community contour service to some portion of the markets and are located within 92 km of the common overlap area. In a market with 23 stations, under §73.3555(a)(1)(iii) an entity may own a total of six radio stations, four of which may be in the same service. Thus, the proposed common ownership of three FM stations and two AM stations in Markets “A” and “C” and the proposed common ownership of two FM stations and three AM stations in Market “B” is in compliance with §73.3555(a).

For simplicity, only non-*Cameron* FM stations were identified and counted for this analysis. The inclusion of AM stations would significantly increase the total station count, but is not necessary to demonstrate compliance with the contour method for the *Cameron* station count.

### **Study Methodology**

Principal community coverage contours are 70 dB $\mu$  (3.16 mV/m) for FM stations and daytime 5 mV/m for AM stations. Stations contributing to the total counts are identifiable, operating, licensed commercial and non-commercial radio stations with principal community contours covering any part of the defined market area and its transmitter site is located within 92 km from the perimeter of mutual overlap.

In preparing the attached maps and tables, pertinent station data were extracted from the FCC’s engineering databases. For AM stations, these included the operating power, radiation efficiency, directional antenna data (where appropriate), and geographic coordinates. The distances to the pertinent contours were computed using a digitized version of the FCC’s Figure M-3

(estimated soil conductivity map) and a computer program which simulates the FCC's AM groundwave propagation curves at five degree azimuthal increments. For the FM stations, pertinent data for determining the distances to the contour included the antenna elevation above mean sea level, geographic coordinates, effective radiated power, and, where appropriate, directional antenna patterns. The requisite contour distances were determined using digitized, 3 arc-second terrain data along radials spaced every degree from the transmitter site and an implementation of the FCC's TVFMFS computer program which simulates the FM propagation curves.

### **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.  
April 29, 2013

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### List of Attachments

Figure 1	Radio Multiple Ownership Overview
Figure 2	Principal Community Contours
Table 1	Market Station Listing

**Table 1**  
**Market Station Listing (Figure 2)**  
**Cameron Broadcasting, Inc.**

**Market "A" definition: proposed commonly owned stations**

Count	Call Sign	Ch/freq	Fac ID	Location
1	KLUK(FM)	250C	8385	Needles, CA
2	KFLG-FM	234C0	55495	Big River, CA
3	KNKK(FM)	296C1	78087	Needles, CA
4	KFLG(AM)	1000	65676	Bullhead City, AZ
5	KZZZ(AM)	1490	8387	Bullhead City, AZ

**Market "B" definition: proposed commonly owned stations**

Count	Call Sign	Ch/freq	Fac ID	Location
1	KLUK(FM)	250C	8385	Needles, CA
2	KNKK(FM)	296C1	78087	Needles, CA
3	KAAA(AM)	1230	55492	Kingman, AZ
4	KFLG(AM)	1000	65676	Bullhead City, AZ
5	KZZZ(AM)	1490	8387	Bullhead City, AZ

**Market "C" definition: proposed commonly owned stations**

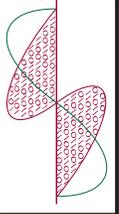
Count	Call Sign	Ch/freq	Fac ID	Location
1	KLUK(FM)	250C	8385	Needles, CA
2	KFLG-FM	234C0	55495	Big River, CA
3	KNKK(FM)	296C1	78087	Needles, CA
4	KAAA(AM)	1230	55492	Kingman, AZ
5	KFLG(AM)	1000	65676	Bullhead City, AZ

**Stations Common to All Three Markets**

**FM Principal Community Contours Overlapping KLUK(FM)**

Count	Call Sign	Ch/freq	Fac ID	Location
6	KAIH	207A	93353	Lake Havasu City, AZ
7	KGMM	261C2	48680	Kingman, AZ
8	KHWY	255B	34556	Essex, CA
9	KJJJ	272C1	63410	Laughlin, NV
10	KJLC-FM	214A	174417	Needles, CA
11	KJZK	214C3	173030	Kingman, AZ
12	KLKI	220C0	90917	Dolan Springs, AZ
13	KNLB	216C3	48504	Lake Havasu City, AZ
14	KOAS	289C	25692	Dolan Springs, AZ
15	KPKR	239B1	170952	Parker, AZ
16	KRCY-FM	244C3	77754	Lake Havasu City, AZ
17	KRRK	264C3	38314	Desert Hills, AZ
18	KVAL	285A	164263	Cal-nev-ari, NV
19	KVGS	300C	25752	Meadview, AZ
20	KVIR	210C1	91952	Bullhead City, AZ
21	KVYL	229A	164262	Mohave Valley, AZ
22	KWFH	212C2	16762	Parker, AZ
23	KZUL-FM	283C3	39562	Lake Havasu City, AZ

**23 Total Number of Stations in Market**

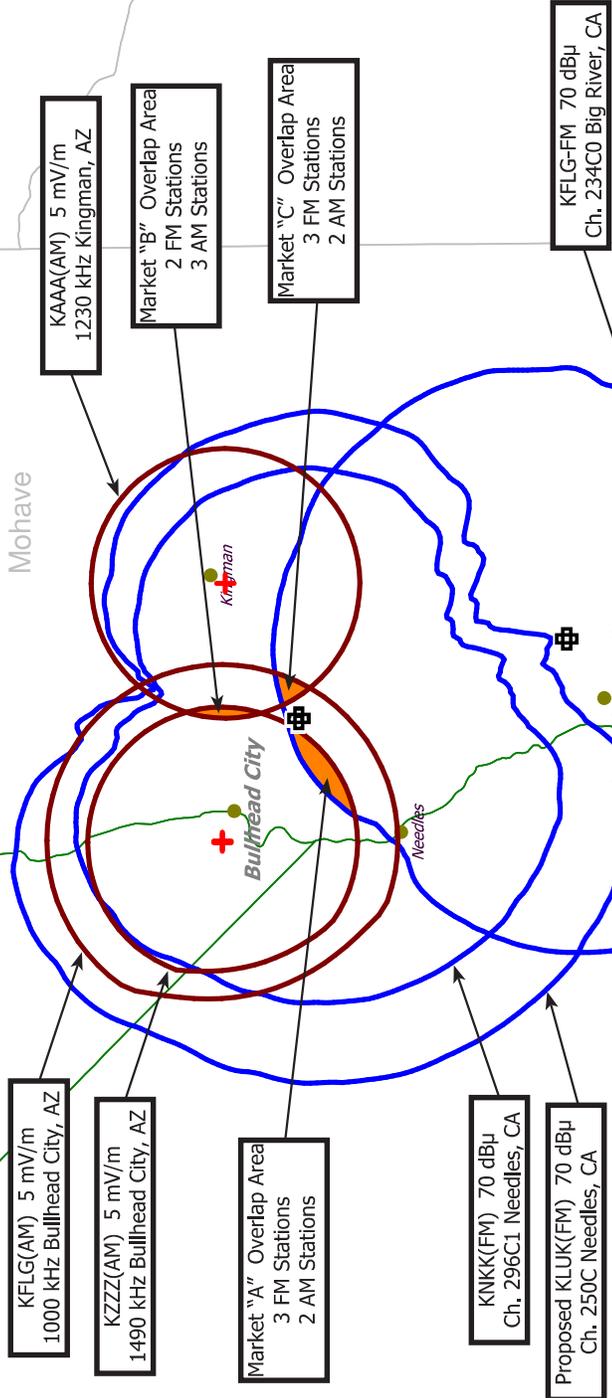


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**Figure 1**  
**Radio Multiple Ownership Overview**

prepared for  
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April, 2013



San Bernardino

La Valley  
Twenty-nine Palms

Mohave

La Paz

Chino Valley  
Yavapai  
Prescott





**Figure 2**  
**Principal Community Contours**  
prepared for  
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April, 2013

Proposed KLUK(FM) 70 dBμ  
Ch. 250C Needles, CA

