

## Engineering Statement in Support of Change to the Community of License

### Introduction

Educational Media Foundation requests a community of license change for KLVA from Maricopa, AZ to Avondale, AZ.

This statement is included to show that the proposed move will comply with the 307(b) fair distribution guidelines.

### Discussion

In the instructions for the new Form 340, the FCC describes several points that are suggested for a showing that the proposed community of license change would result in a preferential arrangement of allotments under section 307(b).

#### **1. Minimum Requirements**

The commission has requested that any 307(b) showing contain the following minimum information:

- Since new technical facilities are proposed, the population and area for the new facility are as follows: the 70 dBu contour will contain 1,103,786 persons and 3042.7 sq. km. and the 60 dBu contour will contain 3,395,990 persons and 8698.4 sq. km. area.
- The number of stations licensed to the current community of license is 1. The number of stations licensed to the proposed community of Avondale, AZ is 0.
- The number of stations providing service to the current community of license is approximately 55. The number of stations that provide protected service to the proposed community is approximately 51.
- The population of the proposed community is 76,238, according to the 2010 U.S. Census data.
- Description of the civic, cultural, religious, social and commercial attributes of the proposed community of license. The proposed city of Avondale, AZ is a licensable community as shown in Exhibit 25-H.

#### **2. Other Relevant Information**

##### **A. Service Area**

In order to show that the community of license that is currently served by KLVA continues to be served when the proposed move is granted, several exhibits have been attached.

- Exhibit 25-A shows all facilities that serve any portion of the current KLVA community of license area of Maricopa, AZ. See Exhibit 25-A1 for a station list along with a service count.

- Exhibit 25-B also provides a color coded showing of the number of stations that provide service within the current licensed contour of KLVA. As can be seen the entire area is well served by 5 or more stations, not including KLVA.

## B. Gain/Loss

The proposed move to KLVA will make more efficient use of the FM spectrum and increase service to the public, as it will result in a vast increase in population served as illustrated by the exhibits below:

- Exhibit 25-C is a population report of the licensed facility for KLVA. As can be seen, the current facility serves an area of 8892.4 sq. km and a population of 1,961,874 persons.
- Exhibit 25-D is a population report of the proposed KLVA facility. As can be seen, the proposed facility serves an area of 8698.4 sq. km and a population of 3,395,990 persons.
- Exhibit 25-E is a population report of the area that is served by both the licensed and the proposed KLVA facilities. As can be seen, the shared area is 223 sq. km and the shared population is 1,610,207 persons
- Therefore, although there is an overall loss of 2.18% (194 sq. km) of the area served, the population served increases by 73.10% (1,434,116 persons).

## C. Urban Area Consideration

Figure 25-F is a map which depicts the licensed and proposed 70dbu contours along with the Maricopa Urbanized Area (UA) and the Avondale/Goodyear UA. Note that this proposed change in the community of license will also move the city grade coverage of KLVA from one urbanized area to another urbanized area.

Studies were conducted to determine if any rule-compliant minor modifications could be made on the proposed channel and class operation which would provide 70dBu coverage over 50 percent or more of the Avondale/Goodyear UA. The studies considered all existing registered towers in the Commission's Antenna Structure Registration database along with unregistered towers currently used by licensed radio stations. In addition, consideration was also given to use of short-spaced sites and directional antenna systems. Exhibit 25-G depicts the eligible area taking into consideration the minimum required spacing allowed for contour protection. The eligible area is seen as the gray shaded area.

On this basis, no tower sites were found that would allow a minor modification to KLVA resulting in 70dbu coverage to 50% or more of the Avondale/Goodyear UA. In the

abundance of precaution, the study also took into account the Phoenix/Mesa UA as depicted by the Green Outlined area on Exhibit 25-G. Under the same criteria of study standards, no eligible tower sites were found which would allow coverage of 50% of the Phoenix/Mesa UA.

### **3. Number of Aural Services**

The proposed community of license change for KLVA will result in preferential arrangement of facilities. This facility will provide Avondale, AZ with its first local aural transmission.

Simultaneously with this application, EMF and East Valley Institute Of Technology District #401, are filing applications to change the community of licenses for KLVK (Facility ID No. 76329) Fountain Hills, AZ and KPNG (Facility ID No. 173984) Chandler, AZ to Maricopa, AZ. Therefore, a grant of these two applications will maintain two local transmission services to Maricopa, AZ following the proposed relocation of KLVA from Maricopa, AZ to Avondale, AZ as reflected in the concurrently filed contingent applications.

This exhibit demonstrates the combined public interest benefits that will result in the implementation of the changes proposed in the three concurrently filed applications for KLVA, KLVK, and KPNG.

With the KLVK and KPNG proposed community of license changes to Maricopa, AZ, the KLVA former community of license, Maricopa, AZ, will continue to be served by the following facilities:

FIN	Call Sign	Proposed Community of License
76329	KLVK	Maricopa, AZ
173984	KPNG	Maricopa, AZ

Respectfully submitted,

James L Travis  
Signal Development  
Educational Media Foundation  
November 4, 2016



**Service Count Report**

Service count area for Maricopa, AZ

Service Count Population Report - Service Count: KLVA (288): FCC F(50-50) 60.00  
 dBu (FCC HAAT)

Reference Area: KLVA (288): FCC F(50-50) 60.00 dBu (FCC HAAT)  
 Counting Grid Cell Size: 0.5 sq. km  
 Population Database: 2010 US Census (PL)

Count Area	Population	Housing Units	Area (sq. km)
1 Service	0	0	0.00
2 Service	0	0	0.00
3 Service	0	0	0.00
4 Service	0	0	0.00
5 or more	1,959,697	802,459	8894.93
Reference Area	1,959,697	802,459	8894.93

Total number of overlapping contours: 45

Reference:

Callsign	Type	Chan	City	St	File Number	Dist (km)	Azi (deg)
KLVA	FM	288C2	Maricopa	AZ	BLED20160407AAC	0.0	0.0

Overlapping Contours:

Callsign	Type	Chan	City	St	File Number	Dist (km)	Azi (deg)
KNAI	FM	202C1	Phoenix	AZ	BLED19920121KC	66.5	351.2
KPHF	FM	202C1	Phoenix	AZ	BLED19990716KB	66.5	351.1
KPNG	FM	204C3	Chandler	AZ	BLED20150812AAS	0.0	90.0
KLVK	FM	206C0	Fountain Hills	AZ	BLED20100720AIX	85.8	319.7
KBAQ	FM	208C1	Phoenix	AZ	BLED20100721HZP	37.3	348.0
KFLR-FM	FM	212C	Phoenix	AZ	BLED20070912ABQ	37.4	348.4
KVIT	FM	214A	Apache Junction	AZ	BLED20110211ABB	68.0	42.1
KJZZ	FM	218C	Phoenix	AZ	BMLH20090127ACM	37.3	348.0
KTAR-FM	FM	222C	Glendale	AZ	BLH20040707ABM	37.3	348.2
KDKB	FM	227C	Mesa	AZ	BLH20101116AIX	37.3	348.4
KOOL-FM	FM	233C	Phoenix	AZ	BMLH20021018AAD	37.4	348.5
KYOT-FM	FM	238C	Phoenix	AZ	BMLH19950925KC	37.5	348.7
KMXP	FM	245C	Phoenix	AZ	BMLH19941024KC	37.4	348.7
KUPD	FM	250C	Tempe	AZ	BMLH20130820ABM	37.3	348.0
KMVP-FM	FM	254C	Phoenix	AZ	BMLH20040707ABN	37.3	348.2
KESZ	FM	260C	Phoenix	AZ	BLH19970324KD	37.3	348.4
KSLX-FM	FM	264C	Scottsdale	AZ	BMLH20130726AAJ	37.1	348.2
KALV-FM	FM	268C	Phoenix	AZ	BLH6108	37.1	348.2
KNIX-FM	FM	273C	Phoenix	AZ	BMLH19870814KA	37.3	348.0
KLNZ	FM	278C	Glendale	AZ	BMLH19980406KB	85.8	319.7

**Educational Media Foundation**  
 5700 West Oaks Boulevard  
 Rocklin, CA 95765

*Exhibit 25-A1*  
*Maricopa, AZ*

KZON	FM	280C1	Gilbert	AZ	BLH20040831ACE	50.0	57.2
KZZP	FM	284C	Mesa	AZ	BLH6100	37.4	348.8
KMLE	FM	300C	Chandler	AZ	BLH19881103KA	37.4	348.5
KSAZ	AM	580	MARANA	AZ	BL20010418ABK	89.5	132.9
KSUN	AM	1400	PHOENIX	AZ	BL	42.8	358.0
KCKY	AM	1150	COOLIDGE	AZ	BL19840709AD	40.5	89.3
KBSZ	AM	1260	APACHE JUNCTION	AZ	BL20121211ACR	59.1	44.6
KIHP	AM	1310	MESA	AZ	BML20091216AFV	50.2	15.7
KDUS	AM	1060	TEMPE	AZ	BL19920922AD	39.7	1.9
KHEP	AM	1580	TEMPE	AZ	BLRB1104ML	52.0	15.3
KFNX	AM	1100	CAVE CREEK	AZ	BL19970613AV	88.1	359.4
KAZG	AM	1440	SCOTTSDALE	AZ	BL19940707AB	52.8	4.2
KMVP	AM	860	PHOENIX	AZ	BMML20100723AVO	48.2	343.7
KFYI	AM	550	PHOENIX	AZ	BL	42.7	356.9
KPXQ	AM	1360	GLENDALE	AZ	BMML20110811ACJ	60.0	338.6
KXEG	AM	1280	PHOENIX	AZ	BL20160401AZQ	56.2	345.0
KOY	AM	1230	PHOENIX	AZ	BL19970717AB	49.4	346.1
KKNT	AM	960	PHOENIX	AZ	BL19940802AD	76.4	358.6
KPHX	AM	1480	PHOENIX	AZ	BL19901005AD	45.5	345.1
KXXT	AM	1010	TOLLESON	AZ	BL20000815ACV	53.2	336.9
KGME	AM	910	PHOENIX	AZ	BL	60.1	347.5
KIDR	AM	740	PHOENIX	AZ	BL	41.8	343.6
KTAR	AM	620	PHOENIX	AZ	BMML20130718AHZ	52.7	358.0
KBMB	AM	710	BLACK CANYON CITY	AZ	BMML20090608ADP	120.4	352.4

Distance and bearing calculations from coordinates: 33-00-14 N, 111-58-54 W

Duopoly Options:

TV: Not Included

FM: 1.0 mV/m (60 dBu); Include NCE

AM: 2.0 mV/m

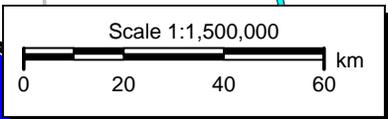
Stations more than 92 km from the common area were excluded.

Blue Contours - 2mv/m Daytime  
Red Contours - 60dbu(F50-50)

# Exhibit 25-B Maricopa, AZ Number of Service Contours

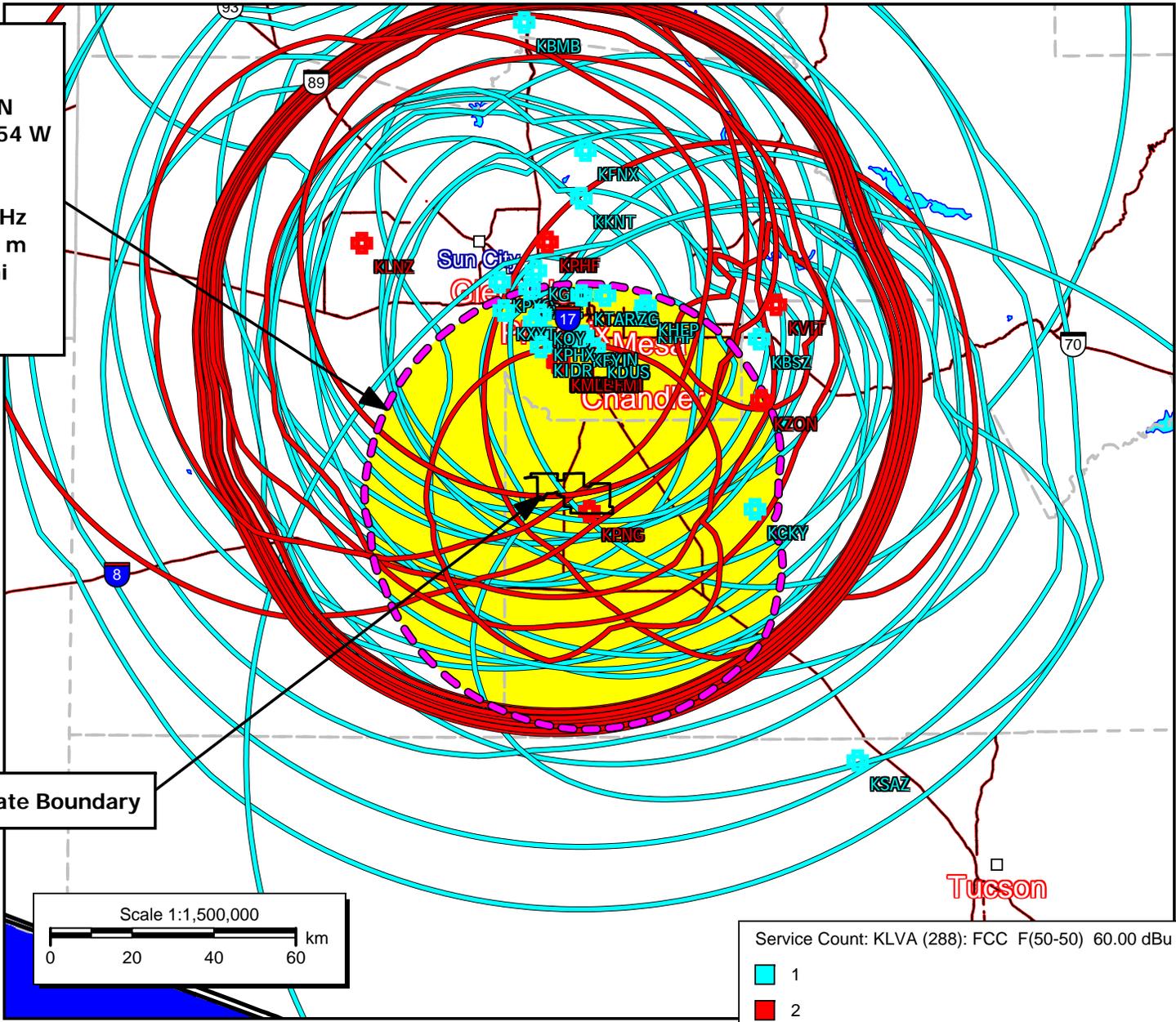
**KLVA**  
BLED20160407AAC  
Latitude: 33-00-14 N  
Longitude: 111-58-54 W  
ERP: 50.00 kW  
Channel: 288  
Frequency: 105.5 MHz  
AMSL Height: 541.0 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: None

Maricopa Corporate Boundary



Service Count: KLVA (288): FCC F(50-50) 60.00 dBu (FCC HAAT)

- 1
- 2
- 3
- 4
- 5 or more



## **Population Report for KLVA Licensed**

### Population Report

Station: KLVA (288)  
Contour: FCC F(50-50) 60.00 dBu (FCC HAAT)

Population Database: 2010 US Census (PL)

Total Population: 1,961,874  
Housing Units: 803,644  
Coverage Area: 8,892.4 sq. km

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Call Letters: KLVA  
File Number: BLED20160407AAC  
Latitude: 33-00-14 N  
Longitude: 111-58-54 W  
ERP: 50.00 kW  
Channel: 288  
Frequency: 105.5 MHz  
AMSL Height: 541.0 m  
Elevation: 374.0 m  
Horiz. Antenna Pattern: Omni  
Vert. Elevation Pattern: No

## **Population Report for KLVA Proposed**

### Population Report

Station: KLVA.P (288)  
Contour: FCC F(50-50) 60.00 dBu (FCC HAAT)

Population Database: 2010 US Census (PL)

Total Population: 3,395,990  
Housing Units: 1,432,544  
Coverage Area: 8,698.4 sq. km

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Transmitter Information:

Call Letters: KLVA.P  
Latitude: 33-16-24.10 N  
Longitude: 112-16-48 W  
ERP: 0.80 kW  
Channel: 288  
Frequency: 105.5 MHz  
AMSL Height: 1383.0 m  
Elevation: 1375.0 m  
Horiz. Antenna Pattern: Omni  
Vert. Elevation Pattern: No  
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### **Overlap Population Report for KLVA Licensed and Proposed**

Overlap Population Report  
KLVA (288) / KLVA.P (288)

Overlap Area Type: Intersection  
Areas Included:

KLVA (288): FCC F(50-50) 60.00 dBu (FCC HAAT)  
KLVA.P (288): FCC F(50-50) 60.00 dBu (FCC HAAT)

Population Database: 2010 US Census (PL)

Total Population: 1,610,207  
Housing Units: 656,038  
Overlap Area: 4,644 sq. km

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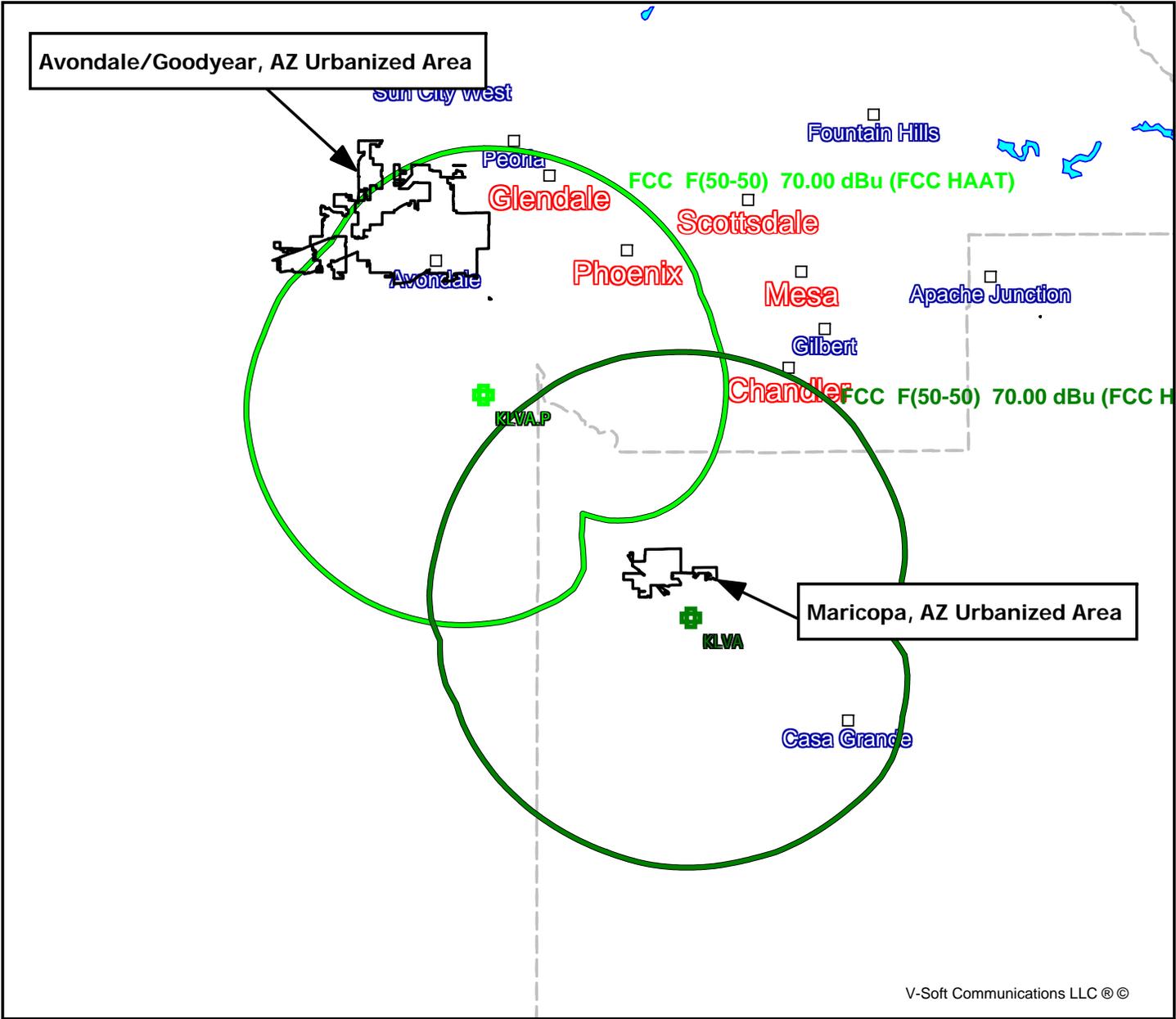
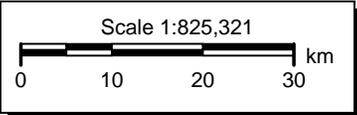
Area Description	Total Population	Total Area [sq. km]	Percent Population	Percent Area
KLVA (288): FCC F(50-50)	1,961,874	8,892	82.1 %	52.2 %
KLVA.P (288): FCC F(50-50)	3,395,990	8,698	47.4 %	53.4 %

# Exhibit 25-F

- KLVA (288)
- KLVA.P (288)

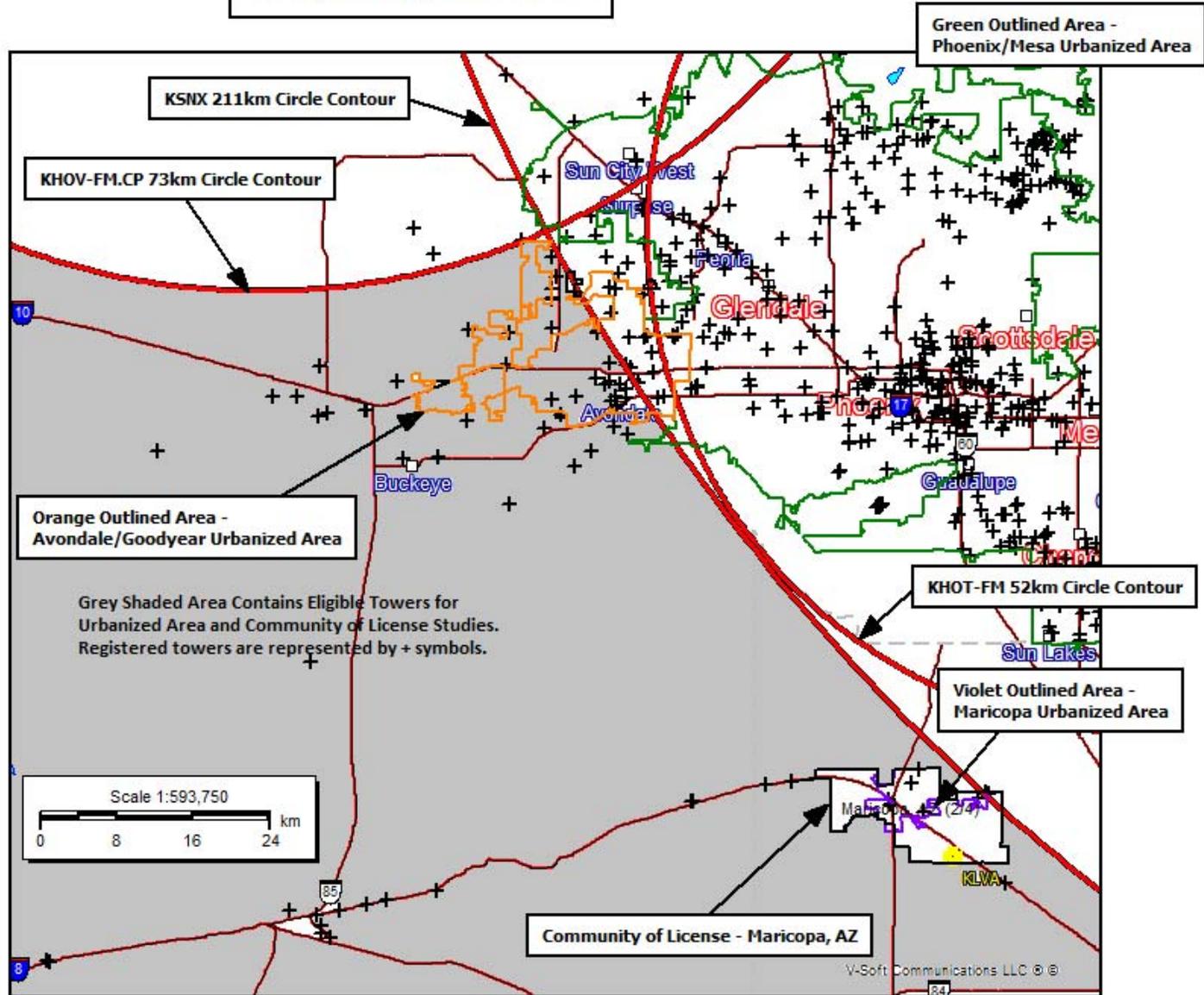
**KLVA**  
BLED20160407AAC  
Latitude: 33-00-14 N  
Longitude: 111-58-54 W  
ERP: 50.00 kW  
Channel: 288  
Frequency: 105.5 MHz  
AMSL Height: 541.0 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: None

**KLVA.P**  
Latitude: 33-16-24.10 N  
Longitude: 112-16-48 W  
ERP: 0.80 kW  
Channel: 288  
Frequency: 105.5 MHz  
AMSL Height: 1383.0 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: None



### Study of Eligible Towers

**KLVA**  
Licensed Site  
Latitude: 33-00-14 N  
Longitude: 111-58-54 W  
ERP: 50.00 kW  
Channel: 288  
Frequency: 105.5 MHz  
AMSL Height: 541.0 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: None



## **Avondale, AZ**

Avondale is a *bona fide* community for allotment purposes. Avondale is a census designated place (“CDP”) with a 2010 population of 76,238. Avondale continues to maintain relevant residential, social and business characteristics.

Avondale has its own elected government, which consists of a Mayor and Six Councilmembers. Avondale also has a City Manager, Clerk, Development and Engineering Services which include the Planning Commission and Zoning Board of Appeals.

Avondale has its own Post Office and U.S. Postal Service Zip Codes (85323 and 85392).

Avondale has numerous businesses and commercial establishments within its borders, as well as a number of churches.

Estrella Mountain Community College and Westview High School are located in Avondale.

Avondale has two public libraries, Avondale Civic Center Library and the Sam Garcia Western Avenue Library. Avondale has its own fire department and police department. There are 10 city parks located within Avondale. There is also a Civic Center and a Community Center.

For more information on the City of Avondale visit <http://www.avondale.org/>