

**ENGINEERING TECHNICAL STATEMENT PREPARED BY WILLIAM T. GODFREY, JR.  
OF THE FIRM KESSLER AND GEHMAN ASSOCIATES, INC. TELECOMMUNICATIONS  
CONSULTING ENGINEERS IN CONNECTION WITH A MINOR AMENDMENT TO A  
PENDING MODIFICATION APPLICATION FILED IN THE SECOND PRIORITY FILING  
WINDOW FOR THE KASN-D34 POST-AUCTION FACILITY (FILE NO. 0000034796).**

The firm Kessler and Gehman Associates, Inc. (KGA) has been retained by Mission Broadcasting, Inc. (Mission) to prepare an amendment to a pending minor modification of license application for the KASN-DT Channel 34 post-auction facility (File Number 0000034796) in order to provide exhibits demonstrating that the proposed facility can exceed the maximum allowable ERP pursuant to §73.622(f)(5) of the Commission's rules authorizing up to the same geographic coverage area as the largest station with the market.

NOTE: TVStudy demonstrates interference protection compliance based on a cell size of 1.0 km and profile point spacing of 1.0 km. Accordingly, these parameters should be used by the Commission when evaluating interference compliance. As stated in the OET Bulletin Number 69, evaluations of service coverage and interference using finer spacing increments are expected to be consistent with those using 1 kilometer. Evaluations using cells smaller than 2 km on a side are also expected to be consistent.

**LARGEST STATION IN THE MARKET**

Section 73.622(f)(5) of the FCC rules states that licensees and permittees assigned a DTV channel in the initial DTV Table of Allotments may request an increase in either ERP in some azimuthal direction or antenna HAAT, or both, that exceed the initial technical facilities specified in Appendix B, up to that needed to provide the same geographic coverage area as the largest station within their market, whichever would allow the largest service area. It was determined that the licensed KTHV-DT Channel 12

(55.0 kW ERP) Little Rock, AR facility is the largest station in the Little Rock - Pine Bluff market. The KTHV-DT Channel 12 post-auction facility's F(50,90) 36.0 dBuV/m protected noise limited contour encompasses an area of 47,918.57 sq. km. With an HAAT of 589.6 m and the proposed ERP of 1,000 kW, the KASN-DT Channel 34 post-auction facility will encompass an area of only 41,170.02 sq. km which is well within the KTHV-DT 47,918.57 sq. km limit. Therefore, Mission hereby requests an ERP of 1,000 kW with an HAAT of 589.6 m for the KASN-DT Channel 34 post-auction facility (See Exhibits Below).

### **COMMUNITY OF LICENSE COMPLIANCE**

The Contour map exhibit below depicts the proposed facility's F(50,90) 48.0 dBuV/m principal community contour and demonstrates that it will completely encompass the principal community of Pine Bluff, AR. Therefore, the proposed station meets the principal community coverage requirements pursuant to section 73.625(a) of the FCC Rules. The proposed cardioid


### **AREA OF LOSS VS. GAIN**

The contour map and population counts below demonstrate that the proposed facility would result in slight loss toward the south and significant gain in all other directions as a result of changing patterns from a peanut to a broad cardioid. The contour map below compares the underlying CP (red) vs. the proposed facility (green). The underlying CP and the baseline facility are identical. The population loss between the proposed facility and the underlying CP/baseline is 9,196 persons (magenta area). The population gain would be 70,288 persons based on 2010 Census data.

### **CERTIFICATION**

This technical statement was prepared by William T. Godfrey, Jr., Engineering Associate with the firm Kessler and Gehman Associates, Inc. having offices in

Gainesville, Florida, and has been working with the firm in the field of radio and television broadcast consulting since 1998. Mr. Godfrey was a graduate from the University of North Florida and a Distinguished Military Graduate from the University of Florida. As a Professional in the field of Telecommunications he states under penalty of perjury that the information contained in this report is true and correct to the best of his knowledge and belief.

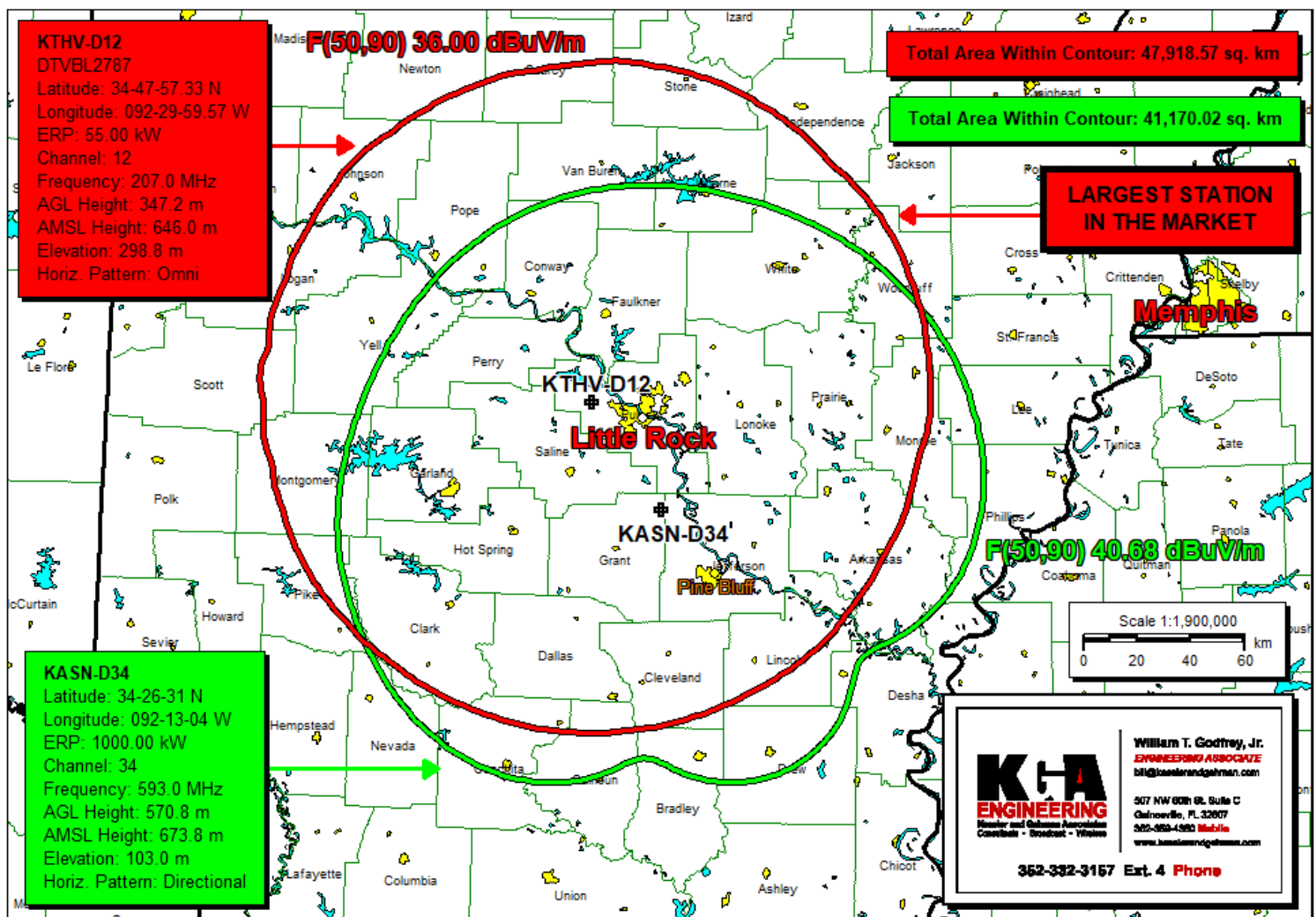
  
WILLIAM T. GODFREY, JR., CBT  
Engineering Associate

16 February, 2018

**TVStudy v2.2.4 – Analyze using the following grid size:**

- Study cell size: 1.00 km
- Profile point spacing: 1.00 km

**LARGEST STATION IN THE MARKET STUDIES:**



### **Call Letters: KASN-D34**

Contour Parameters:

Type: FCC Contour

F(50-90) FS: 40.68 dBu [360 Radials]

Population Database: 2010 US Census (PL)

Primary Terrain: 3 Second US Terrain

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Transmitter Information:

Call Letters: KASN-D34

File Number: 0000034796

Latitude: 34-26-31 N

Longitude: 092-13-04 W

ERP: 1000.00 kW

Channel: 34

Frequency: 593.0 MHz

AMSL Height: 673.8 m

Elevation: 103.0 m

HAAT: 589.6 m

Horiz. Antenna Pattern: Directional

Vert. Elevation Pattern: Yes

Electrical Beam Tilt: 0.8

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Total Population Within Contour: 1,178,217

Total Housing Units Within Contour: 530,445

Total Area Within Contour: 41,170.02 sq. km

### **Call Letters: KTHV-D12**

Contour Parameters:

Type: FCC Contour

F(50-90) FS: 36.00 dBu [360 Radials]

Population Database: 2010 US Census (PL)

Primary Terrain: 3 Second US Terrain

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Transmitter Information:

Call Letters: KTHV-D12

File Number: DTVBL2787

Latitude: 34-47-57.33 N

Longitude: 092-29-59.57 W

ERP: 55.00 kW

Channel: 12

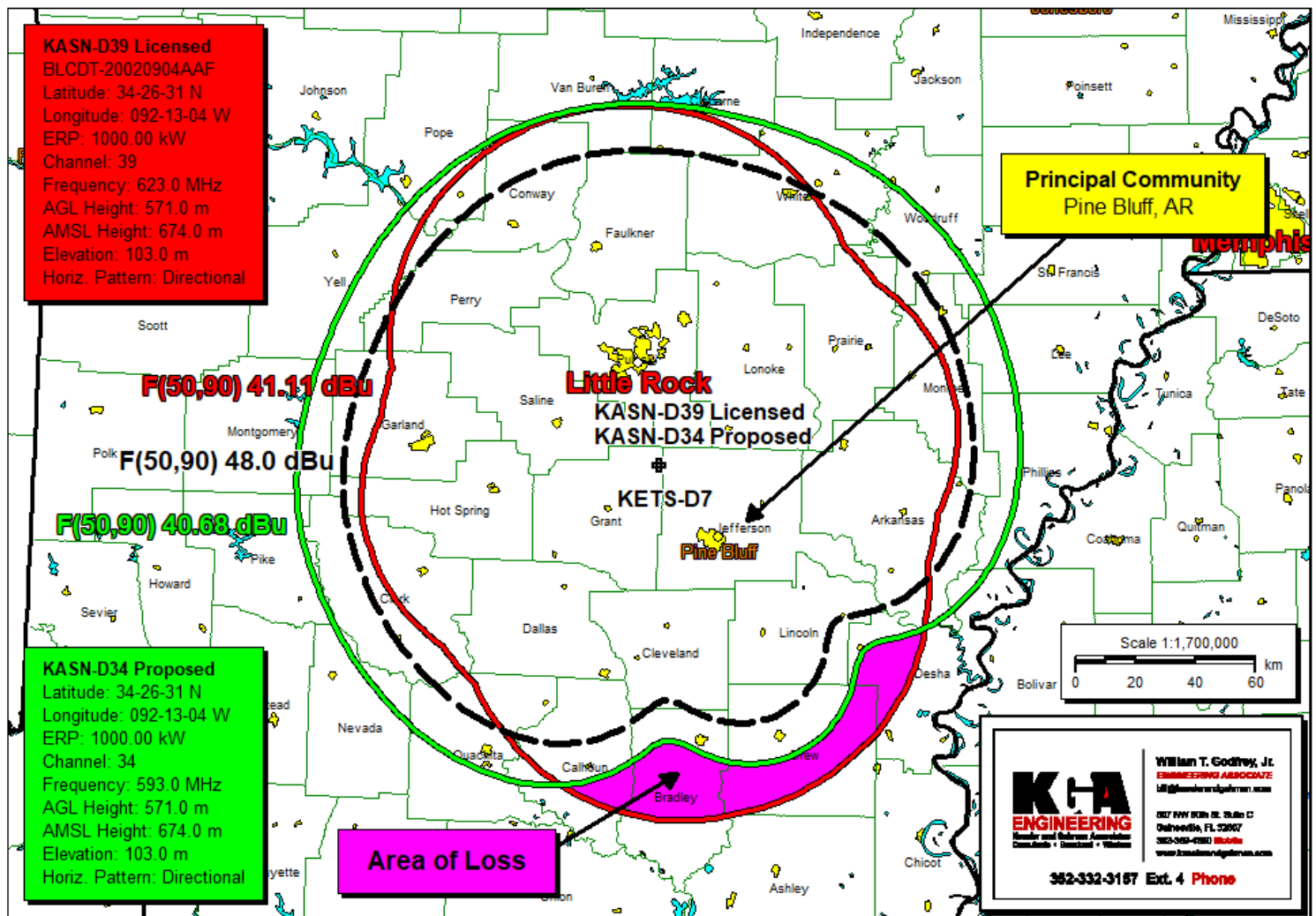
Frequency: 207.0 MHz

AMSL Height: 646.0 m

Elevation: 298.8 m  
HAAT: 518.7 m  
Horiz. Antenna Pattern: Omni  
Vert. Elevation Pattern: Yes  
Electrical Beam Tilt: 0.75

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Total Population Within Contour: 1,284,539  
Total Housing Units Within Contour: 581,042  
**Total Area Within Contour: 47,918.57 sq. km**

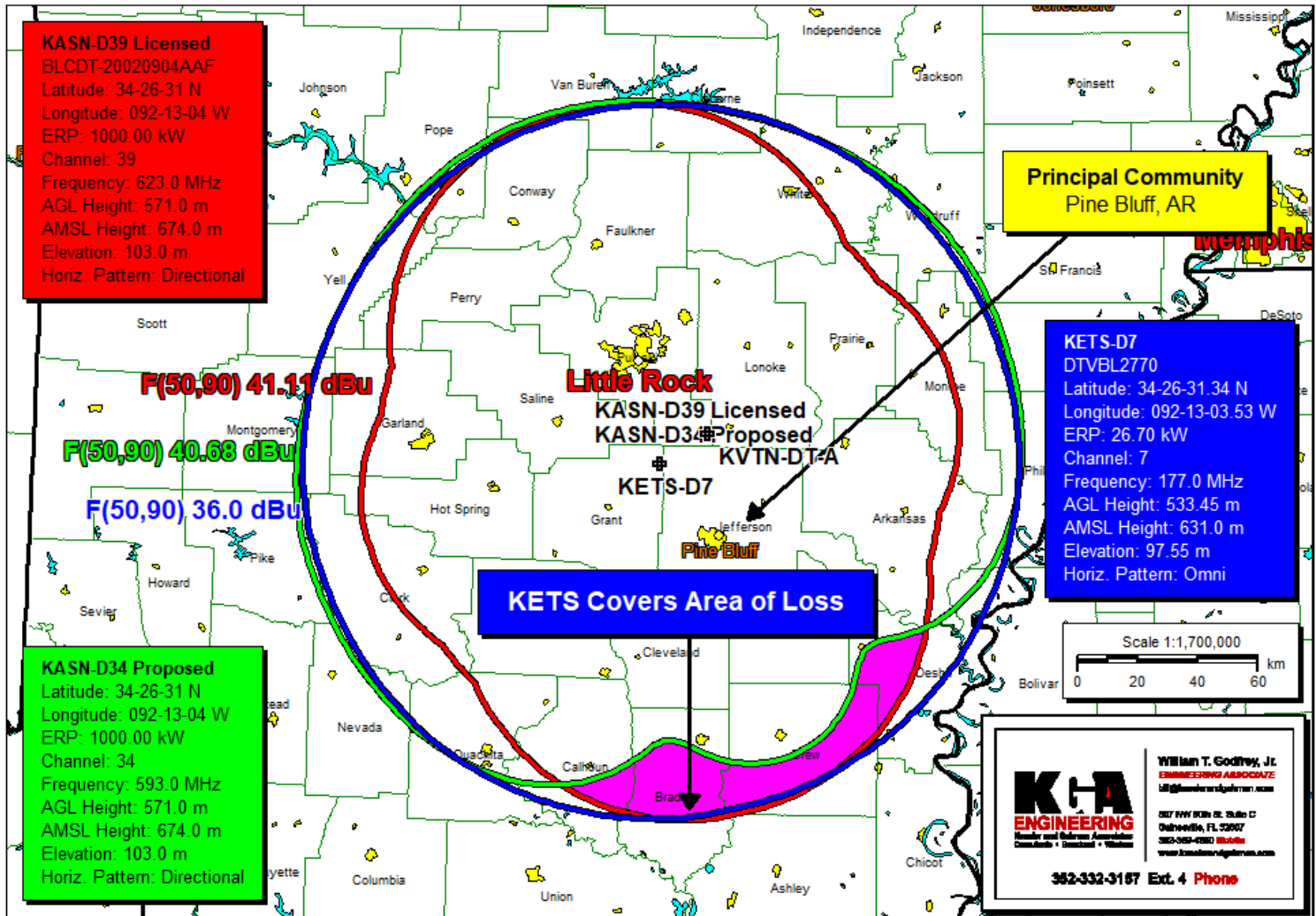
## **KASN-D39 LICENSE VS. KASN-D34 PROPOSED**





# Kessler and Gehman Associates, Inc.

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## Polygon Population Report

Population Database: 2010 US Census (PL)

Total Population: 9,196

Housing Units: 4,409

Total Area: 1,979.2 sq. km

### Polygon Breakdown:

White:	5,896	[ 64.1% ]
Black:	2,382	[ 25.9% ]
Hispanic:	789	[ 8.6% ]
Native American:	18	[ 0.2% ]
Asian:	25	[ 0.3% ]
Pacific Islander:	2	[ 0.0% ]
Mixed Race:	81	[ 0.9% ]
Other:	3	[ 0.0% ]
Total:	9,196	