

TECHNICAL REPORT

Overview

This technical report was prepared in support of an application for a construction permit for a new FM booster for KRXXV-FM.

Allocation Analysis

An allocation analysis was performed according to 74.1204 of the Commission's rules. Exhibit-1 demonstrates that the proposed KRXXV 0.07 kW booster meets all FCC Section 74.1203 first adjacent and I.F. protection requirements. Exhibit 2 shows the HAAT has been calculated over 12 evenly spaced radials to be 284 meters using the FCC 30 Second Terrain Database. The proposed booster's 54 dBu contour will be entirely contained within the KRXXV licensed 54 dBu contour as shown in Exhibit-3 and Exhibit-4. The proposed antenna is a Kathrein Scala 75010286 vertically polarized yagi antenna rotated to an azimuth of 050 degrees. The rotated pattern is included as Exhibit-5 as well as the manufacturer's original pattern documentation.

Site

The proposed facility will be located on an existing pole attached to a building. A TOWERAIR study is attached as Exhibit-6 showing exemption from registration requirements. The site coordinates are: (NAD 27) N 34-36-40.8 W 117-17-19.5 at an elevation of 1188 meters AMSL.

RF Exposure Calculation

The vertically polarized yagi antenna will be mounted at 4 meters AGL. Exhibit-7 shows the results of the Commission's FM Model program, which was used to calculate RF exposure. The worst case RF contribution of the proposed booster was calculated to be 140.01 microwatts/cm² at 1.2 meters AGL, or 70% of the maximum permissible 200 microwatts/cm² for general public exposure. There is no other contributing RF on the proposed tower.

Conclusion

It is concluded that the proposed KHYZ booster meets all applicable FCC rules.



T. Sean McNeill

Heftel Broadcasting Company, LLC

November 24, 2018

EXHIBIT-1
 KRXXV Proposed FM Booster
 Heftel Broadcasting Company, LLC

KRXXV Proposed FM Booster
 Heftel Broadcasting Company LLC

REFERENCE CH# 251D - 98.1 MHz, Pwr= 0.07 kW DA, HAAT= 284.0 M, COR= 1192 M DISPLAY DATES
 34 36 40.8 N. DATA 10-23-18
 117 17 19.5 W. Average Protected F(50-50)= 15.91 km Standard Directional SEARCH 10-24-18

| CH CITY | CALL | TYPE STATE | ANT | AZI <-- | DIST FILE # | LAT LNG | PWR(kw) HAAT(M) | INT(km) COR(M) | PRO(km) LICENSEE | *IN* (Overlap in km) | *OUT* |
|--------------------|---------|------------|-----|----------------|---------------------------|---------------------------|-----------------|----------------|------------------|----------------------|-------------------------------------|
| 251B Yermo | KRXXV« | LIC _C_ CA | | 43.9 224.1 | 59.32 BMLH20040914AAI | 34 59 43.0 116 50 15.0 | 1.550 695 | 1400 | ---Reference--- | | Heftel Broadcasting Compan |
| 251D Victorville | KRXXV-2 | APP D__ CA | | 0.0 0.0 | 0.00 | 34 36 40.8 117 17 19.5 | 0.070 277 | 1191 | ---Reference--- | | Heftel Broadcasting Compan |
| 248B Riverside | KLYY | LIC DCN CA | | 161.9 342.0 | 44.06 BLH19951215KD | 34 14 04.0 117 08 24.0 | 72.000 557 | 3.8 1998 | 57.5 31.8 | | -13.6* Entravision Holdings, LLC |
| 251D Grand Terrace | K251AH | LIC DV_ CA | | 180.6 0.6 | 65.50 BLFT19970929TH | 34 01 20.0 117 17 46.0 | 0.008 337 | 34.6 747 | 9.7 23.8 | | 34.6 The Association For Commun |
| 251D Beaumont | K259BJ | CP DC_ CA | | 155.2 335.4 | 70.30 BPFT20160728AFO | 34 02 13.0 116 58 07.0 | 0.010 | 16.1 1507 | 4.6 46.5 | | 38.4 Rocking M Media, LLC |
| 254B Los Angeles | KYSR | LIC _CX CA | | 241.9 61.3 | 115.07 BMLH20090709ACO | 34 07 08.0 118 23 30.0 | 75.000 360 | 9.4 559 | 70.3 101.2 | | 43.9 Amfm Broadcasting Licenses |
| 252A West Covina | KRCV | LIC _CX CA | | 218.9 38.6 | 76.90 BLH20040316AFH | 34 04 18.0 117 48 46.0 | 6.000 91 | 23.5 411 | 15.8 49.2 | | 54.2 Univision Radio Stations G |

Terrain database is FCC NGDC 30 Sec , R= 73.215 qualifying spacings or FCC minimum spacings in KM, M= Margin in KM
 In & Out distances between contours are shown at closest points. Reference zone= - Zone 1A, Co to 3rd adjacent.
 All separation margins (if shown) include rounding.
 Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)
 "*"affixed to 'IN' or 'OUT' values = site inside restricted contour.
 « = Station meets FCC minimum distance spacing for its class.
 Reference station has protected zone issue: Mexico

Antenna Height Above Average Terrain Calculations -- Results

Input Data

Latitude **34° 36' 40.8"** North
Longitude **117° 17' 19.5"** West (NAD 27)

These coordinates convert to NAD 83 coordinates of
34° 36' 40.77", North, 117° 17' 22.66" West (NAD 83).

Height of antenna radiation center above mean sea level: **1192** meters AMSL

Number of Evenly Spaced Radials = **12** 0° is referenced to True North

Results

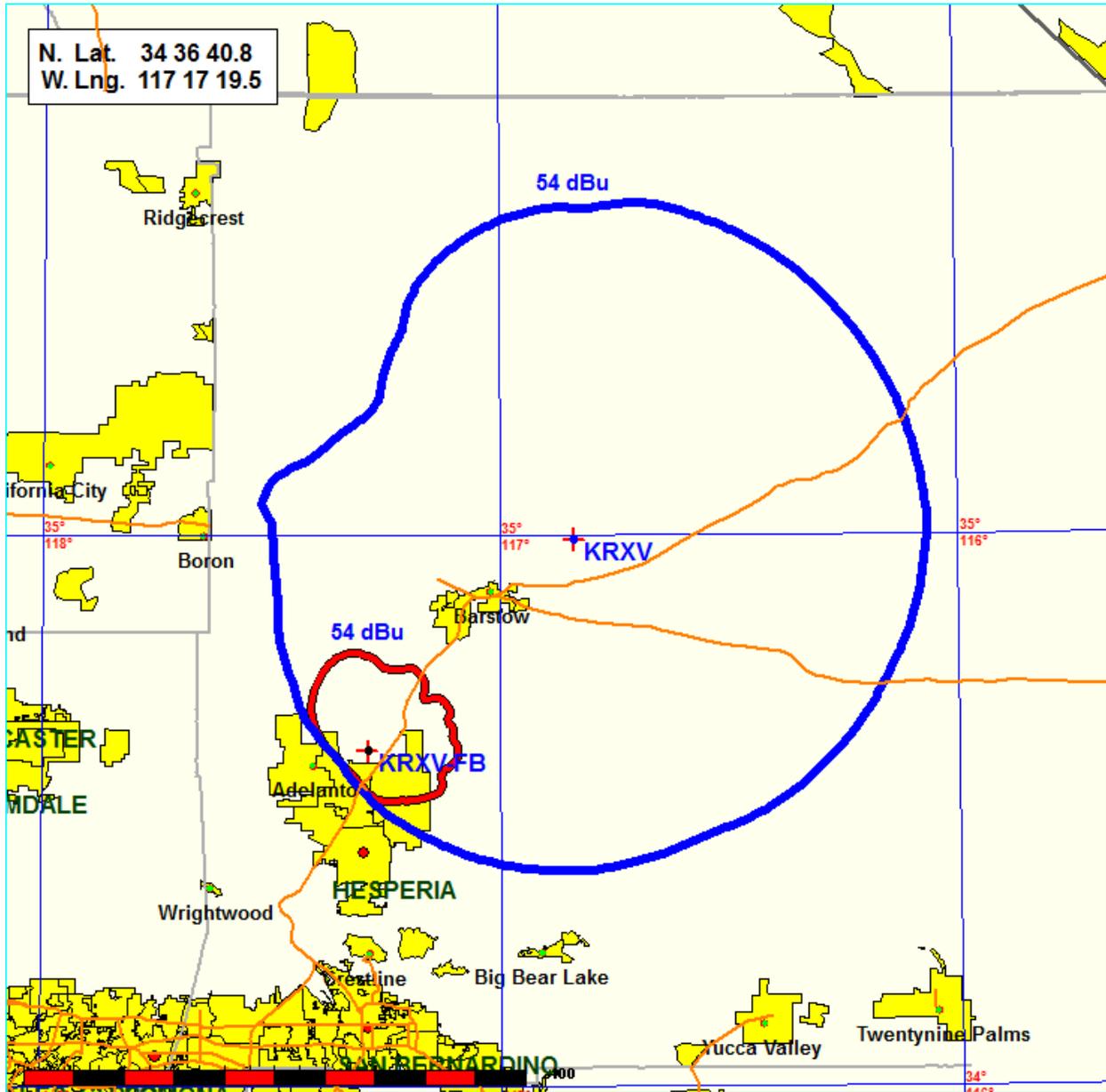
Calculated HAAT = **284 meters**

Antenna Height Above Average Terrain calculated
using FCC 30 second terrain database (continental USA only)

Individual "Radial HAAT" Values, in meters

| | |
|------|---------|
| 0° | 252.5 m |
| 30° | 200.4 m |
| 60° | 185.3 m |
| 90° | 215.1 m |
| 120° | 267.5 m |
| 150° | 266.3 m |
| 180° | 325.3 m |
| 210° | 296.5 m |
| 240° | 315.7 m |
| 270° | 341.6 m |
| 300° | 370.6 m |
| 330° | 366.2 m |

KRXV Licensed Facility And Proposed 0.07kW Booster 54 dBu Contours
(Wide View)



KRXV Licensed Facility And Proposed 0.07 kW Booster 54 dBu Contours
(Zoom View)

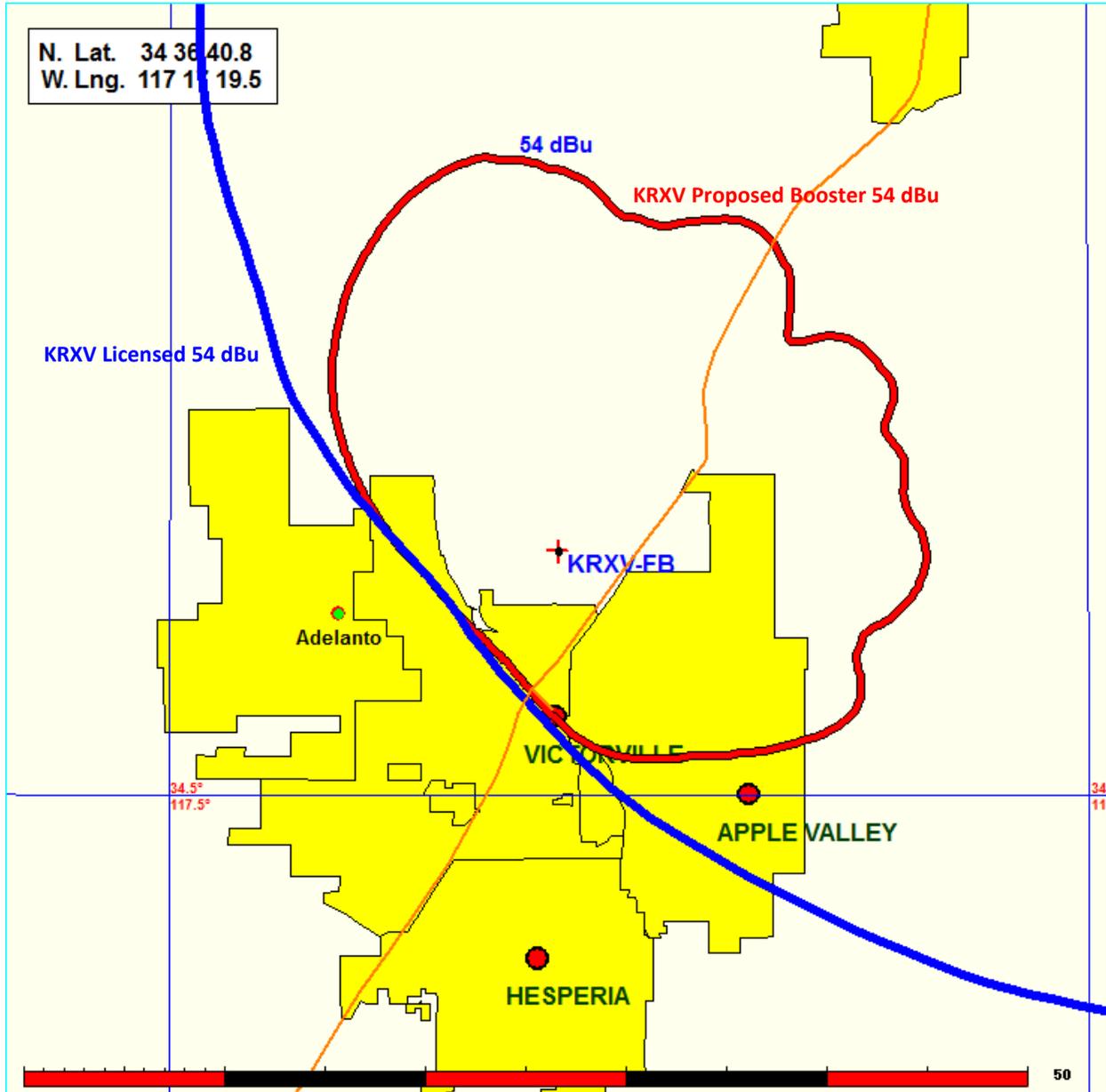


EXHIBIT-5A
 KRXXV Proposed Booster
 Heftel Broadcasting Company, LLC

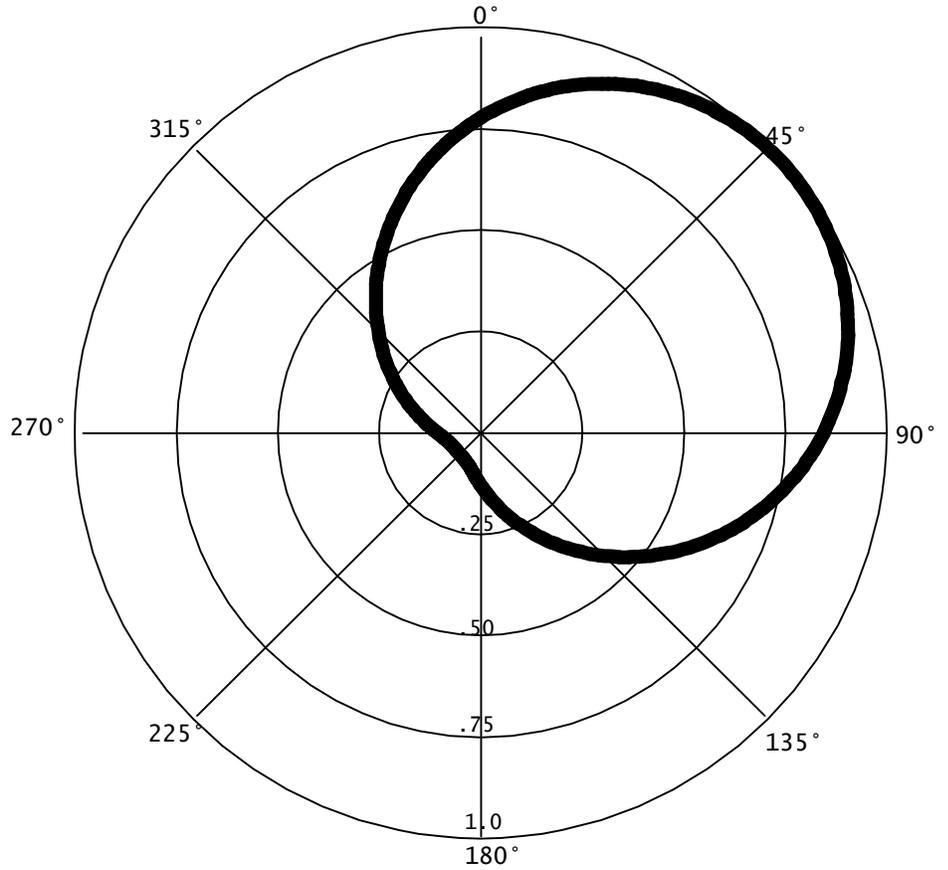
KRXV-2

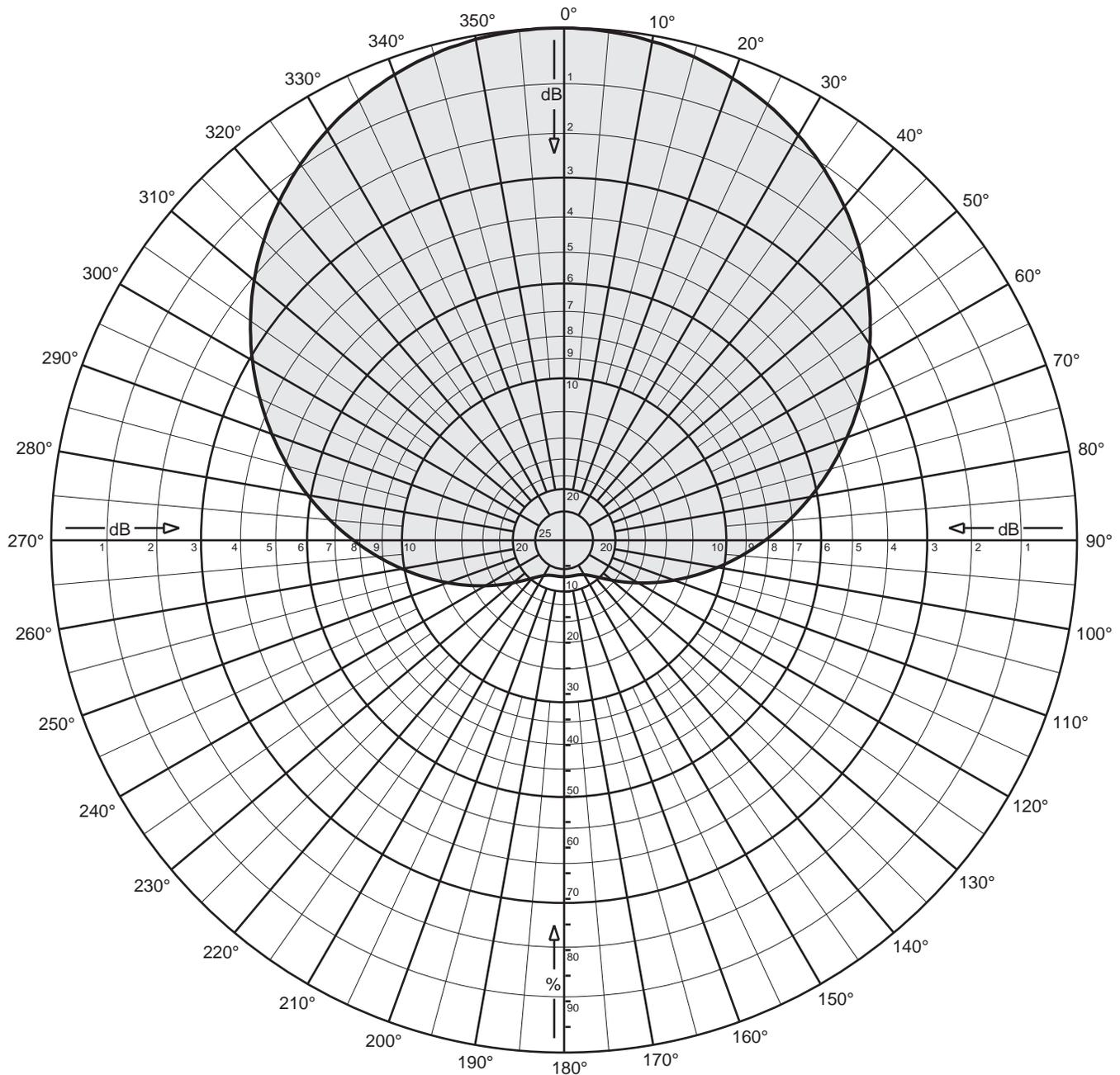
11-24-2018

RMS(V)= .577

Graph is Relative Field

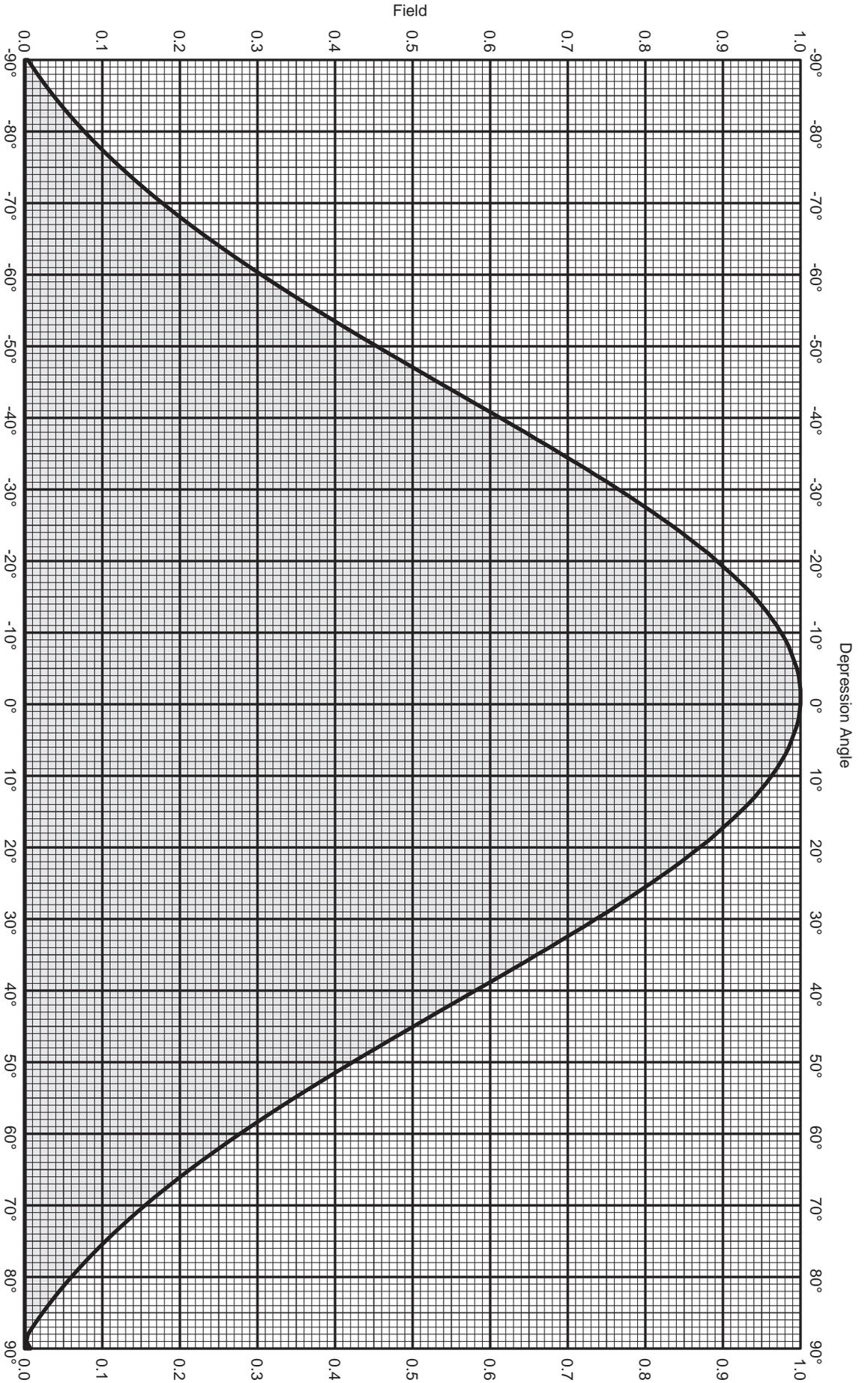
| Azi | Field | dBk | kw |
|-----|-------|---------|-------|
| 000 | 0.782 | -13.689 | 0.043 |
| 010 | 0.858 | -12.879 | 0.052 |
| 020 | 0.920 | -12.269 | 0.059 |
| 030 | 0.966 | -11.849 | 0.065 |
| 040 | 0.992 | -11.619 | 0.069 |
| 050 | 1.000 | -11.549 | 0.070 |
| 060 | 0.989 | -11.649 | 0.068 |
| 070 | 0.958 | -11.919 | 0.064 |
| 080 | 0.910 | -12.369 | 0.058 |
| 090 | 0.844 | -13.019 | 0.050 |
| 100 | 0.764 | -13.889 | 0.041 |
| 110 | 0.673 | -14.989 | 0.032 |
| 120 | 0.576 | -16.339 | 0.023 |
| 130 | 0.478 | -17.959 | 0.016 |
| 140 | 0.384 | -19.860 | 0.010 |
| 150 | 0.300 | -22.018 | 0.006 |
| 160 | 0.228 | -24.398 | 0.004 |
| 170 | 0.171 | -26.889 | 0.002 |
| 180 | 0.130 | -29.297 | 0.001 |
| 190 | 0.102 | -31.369 | 0.001 |
| 200 | 0.086 | -32.839 | 0.001 |
| 210 | 0.078 | -33.696 | 0.000 |
| 220 | 0.075 | -34.094 | 0.000 |
| 230 | 0.074 | -34.200 | 0.000 |
| 240 | 0.075 | -34.048 | 0.000 |
| 250 | 0.079 | -33.564 | 0.000 |
| 260 | 0.089 | -32.600 | 0.001 |
| 270 | 0.107 | -30.986 | 0.001 |
| 280 | 0.137 | -28.840 | 0.001 |
| 290 | 0.181 | -26.391 | 0.002 |
| 300 | 0.241 | -23.909 | 0.004 |
| 310 | 0.316 | -21.569 | 0.007 |
| 320 | 0.402 | -19.458 | 0.011 |
| 330 | 0.497 | -17.618 | 0.017 |
| 340 | 0.596 | -16.048 | 0.025 |
| 350 | 0.692 | -14.749 | 0.034 |





75010286
97.5 MHz
Maximum gain: 5.0 dBd
Vertical polarization
Horizontal plane pattern

KATHREIN
USA



Vertical plane pattern

75010286

97.5 MHz

Maximum gain: 5.0 dBd

Vertical polarization

KATHREIN
USA

TOWAIR Determination Results

*** NOTICE ***

TOWAIR's findings are not definitive or binding, and we cannot guarantee that the data in TOWAIR are fully current and accurate. In some instances, TOWAIR may yield results that differ from application of the criteria set out in 47 C.F.R. Section 17.7 and 14 C.F.R. Section 77.13. A positive finding by TOWAIR recommending notification should be given considerable weight. On the other hand, a finding by TOWAIR recommending either for or against notification is not conclusive. It is the responsibility of each ASR participant to exercise due diligence to determine if it must coordinate its structure with the FAA. TOWAIR is only one tool designed to assist ASR participants in exercising this due diligence, and further investigation may be necessary to determine if FAA coordination is appropriate.

DETERMINATION Results

Antenna Structures whose total height (AGL) is \leq 6.1 meters (20 feet) do not require registration

Your Specifications

NAD83 Coordinates

| | |
|-----------|------------------|
| Latitude | 34-36-40.8 north |
| Longitude | 117-17-22.7 west |

Measurements (Meters)

| | |
|--------------------------------|------|
| Overall Structure Height (AGL) | 5.2 |
| Support Structure Height (AGL) | 2.4 |
| Site Elevation (AMSL) | 1188 |

Structure Type

BPOLE - Building with Pole

[Tower Construction Notifications](#)

Notify Tribes and Historic Preservation Officers of your plans to build a tower.

CLOSE WINDOW

**KRXV Proposed FM Booster
FCC FM Model Results**

