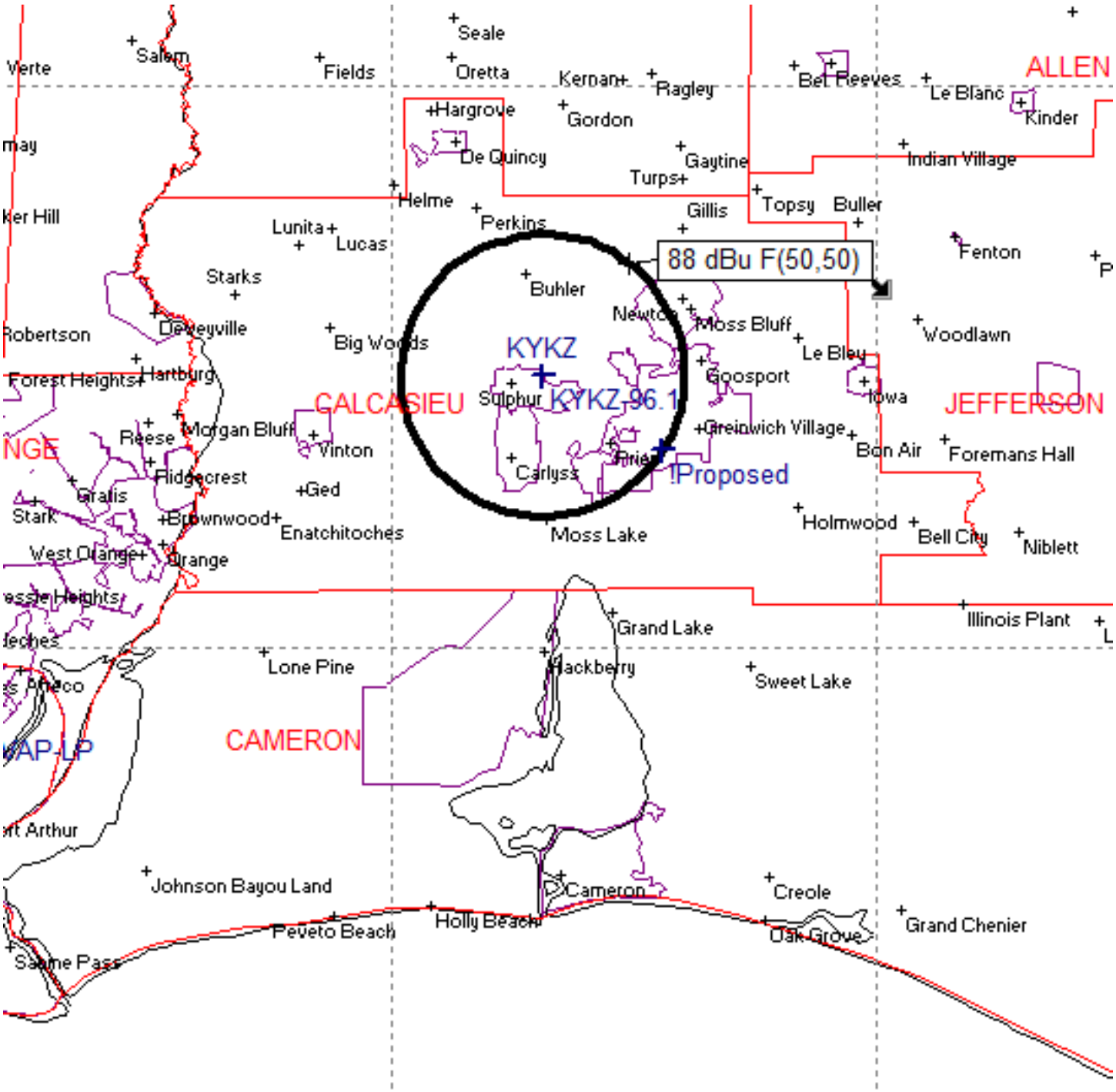
Engineering Statement
2nd Adjacent Channel Protection Waiver

KYKZ-FM, Lake Charles, LA, Channel 241 C1, is 2nd adjacent –channel to the proposed channel 239 LPFM facility and is located 14.01 Km at 301 degrees True bearing from the proposed LPFM transmitter site. The 60 dBu F50,50 service contour extends well beyond the proposed LPFM transmitter site. Using the well-established *Living Way Ministries* Methodology, no actual interference to any proposed population is predicted to exist to KYKZ-FM.

Note that a rule waiver of Section 73.807 for this 2nd adjacent-channel protection using the well-established *Living Way Ministries* Methodology is respectfully requested if such a rule waiver is deemed necessary for protection to any station.

The F50,50 signal strength from KPEL-FM at the proposed LPFM transmitter site is 88 dBu (the “desired” signal). The 2nd / 3rd adjacent-channel protection is an undesired-to-desired (“U/D”) db signal strength ration of 40db. Therefore, predicted interference to KYKZ-FM from the proposed LPFM facility is a signal greater than or equal to 88 + 40db = 128 dBu.

The 128 dBu signal based on the FCC “FM and TV Propagation Curve” online software is predicted to extend out to 21 meters based on and ERP of 56 watts from the proposed LPFM transmit antenna. Since the antenna is 36 meters above ground, the interfering signal level will not reach any point at ground level or at 2 meters above ground level. Therefore KYKZ-FM is adequately protected by the proposed facility.


88 dBu F(50,50)
KYKZ
KYKZ-96.1
!Proposed
CALCASIEU
CAMERON
JEFFERSON
ALLEN
Seale
Salem
Fields
Oretta
Kennan
Ragley
Bel Reeves
Le Blanc
Kinder
Hargrove
Gordon
De Quincy
Gaytine
Indian Village
Turps
Helme
Perkins
Topsy
Buller
Gillis
Lunita
Lucas
Fenton
Starks
Buhler
Newton
Moss Bluff
Woodlawn
Robertson
Deweyville
Big Woods
Le Bleu
Forest Heights
Hartburg
Goosport
Iowa
Sulphur
Morgan Bluff
Reese
Vinton
Greenwich Village
Bon Air
Foremans Hall
Ridgecrest
Carlyss
Gralis
Ged
Stark
Brownwood
Enatchitoches
Moss Lake
Holmwood
Bell City
Niblett
West Orange
Orange
Illinois Plant
Grand Lake
Lone Pine
Hackberry
Sweet Lake
Johnson Bayou Land
Cameron
Creole
Peveto Beach
Holly Beach
Oak Grove
Grand Chenier
Sabine Pass

Antenna Height Above Average Terrain Calculations -- Results

Input Data

Latitude **30° 10' 36"** North
Longitude **93° 13' 14"** West (NAD 83)

These coordinates convert to NAD 27 coordinates of
30° 10' 35.25", North, 93° 13' 13.45" West (NAD 27).

Height of antenna radiation center above mean sea level: **40** meters AMSL

Number of Evenly Spaced Radials = **36** 0° is referenced to True North

Results

Calculated HAAT = **40 meters**

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

Individual "Radial HAAT" Values, in meters

0°	38.1 m
10°	38.3 m
20°	39.9 m
30°	40.0 m
40°	40.0 m
50°	40.0 m
60°	39.3 m
70°	39.5 m
80°	39.0 m
90°	39.7 m
100°	38.3 m
110°	39.1 m
120°	39.4 m
130°	39.4 m
140°	40.0 m
150°	40.0 m
160°	40.0 m
170°	40.0 m
180°	40.0 m
190°	40.0 m
200°	40.0 m
210°	40.0 m
220°	40.0 m
230°	40.0 m
240°	40.0 m
250°	40.0 m
260°	40.0 m
270°	40.0 m
280°	40.0 m
290°	40.0 m
300°	40.0 m
310°	40.0 m

320°	40.0 m
330°	40.0 m
340°	39.4 m
350°	39.1 m

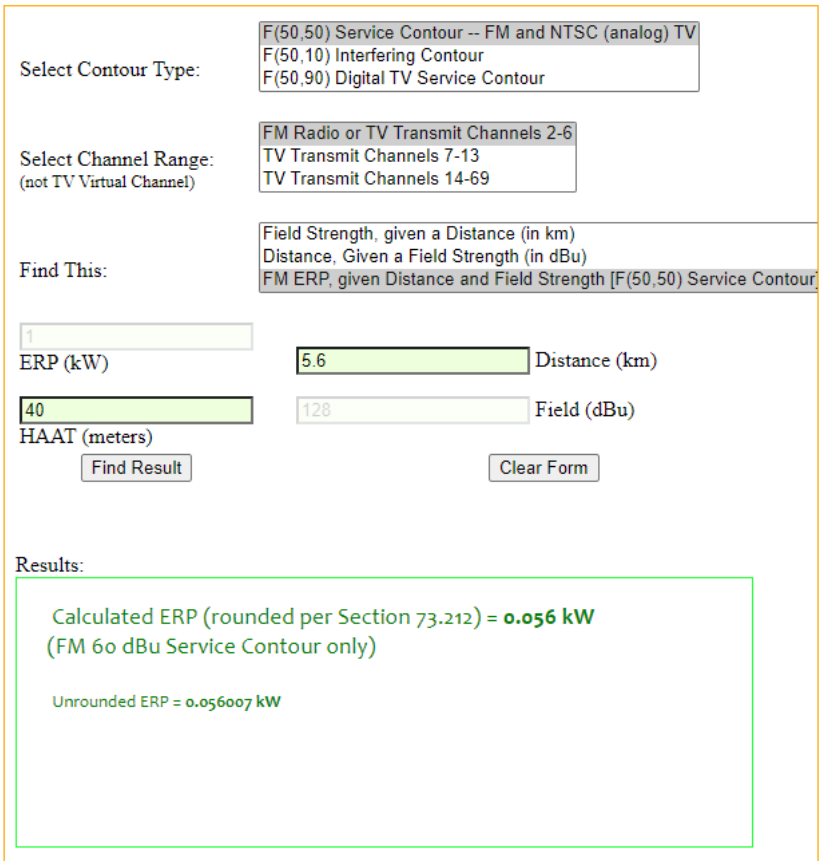
Print Results? New Calculation?

FM and TV Propagation Curves

FM and TV Propagation Curves

FM and TV Propagation Curves Graphs

This Javascript calculator uses the FM or TV propagation curves to find the distance to a service or interfering contour, or the corresponding field strength at a given contour distance. More after the form.



FM and TV Propagation Curves

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FM and TV Propagation Curves Graphs

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