

LANCASTER EDUCATIONAL BROADCAST SERVICE
KLQS-LP 97.5 FM SAN FERNANDO, CALIF
FAC ID NO. 195731

MINOR CHANGE OF LICENSED FACILITY (AMENDMENT)

PARAMETERS

Channel	248L1
New Location:	34° 19' 00.7" N 118° 22' 25.0" W -- NAD 83
Antenna AGL	6.7 m
Tower Total	6.7 m
Antenna Ground	2110 ft = 643 m (see Figure 1)
Antenna COR	649.7 m
HAAT	30 m (see Figure 2)
Power	67 w (100 w possible, but 67 w chosen for second-adjacent channel limitations)
Site Move Type:	LPFM Minor Change (see Figure 3)

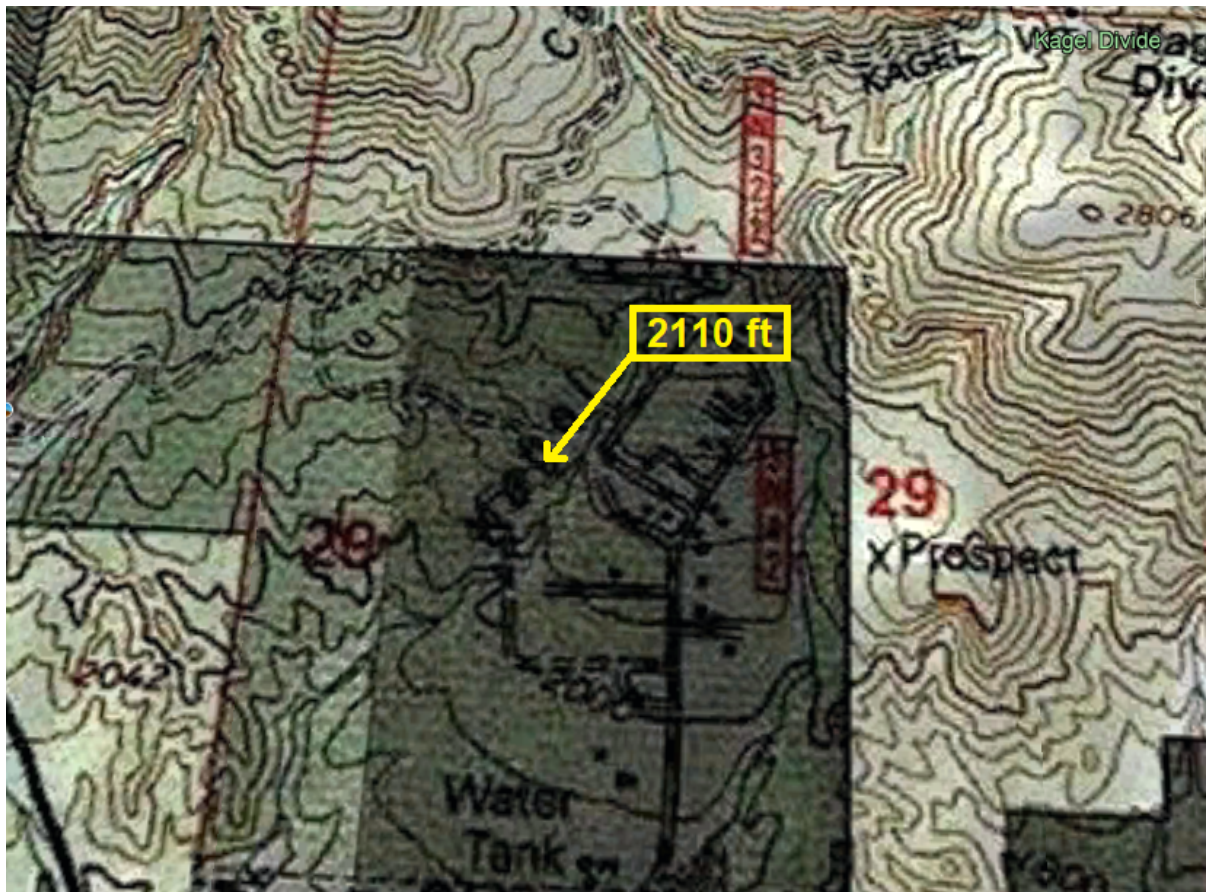


Figure 1: Proposed Site

Antenna Height Above Average Terrain Calculations -- Results

Input Data

Latitude **34° 19' 0.7" North**
Longitude **118° 22' 25" West** (NAD 83)

Height of antenna radiation center above mean sea level: **649.7 meters AMSL**

Number of Evenly Spaced Radials = **8** 0° is referenced to True North

Results

Calculated HAAT = **30 meters**

Antenna Height Above Average Terrain calculated
using 1 km [GLOBE terrain data](#)

Individual "Radial HAAT" Values, in meters

0°	-74.6 m
45°	-404.5 m
90°	-282.2 m
135°	154.2 m
180°	370.6 m
225°	345.8 m
270°	151.5 m
315°	-17.3 m

Figure 2: HAAT calculation from <https://www.fcc.gov/media/radio/haat-calculator>

Distance between:

34 22 44.3 N Latitude, 118 23 50. W Longitude (Point 1)
As decimals: 34.3789722 Latitude, -118.3972222 Longitude

and

34 19 0.7 N Latitude, 118 22 25. W Longitude (Point 2)
As decimals: 34.3168611 Latitude, -118.3736111 Longitude

Distance = 7.224 km (4.489 miles)
via the method in Sections 73.208 and 73.611(d)
This method is only suitable for distances up to 475 km (295 miles).

Azimuth, Point 1 to Point 2: 162.57° True
Azimuth, Point 2 to Point 1: 342.58° True

To find the terminal coordinates given a bearing and a distance
use the [Terminal Coordinates](#) function.

Figure 3: Per Section 73.870(a), minor change is < 11.2 km.

TOWAIR (PASS)

DETERMINATION Results	
Structure does not require registration. There are no airports within 8 kilometers (5 miles) of the coordinates you provided.	
Your Specifications	
NAD83 Coordinates	
Latitude	34-19-00.7 north
Longitude	022-25-25.0 west
Measurements (Meters)	
Overall Structure Height (AGL)	6.7
Support Structure Height (AGL)	0
Site Elevation (AMSL)	643
Structure Type	
POLE - Any type of Pole	

CHANNEL SPACING

REFERENCE		DISPLAY DATES
34 19 00.70 N.	CLASS = L1	DATA 05-30-23
118 22 25.00 W.	Current Spacings to 2nd Adj.	SEARCH 07-25-23
----- Channel 248 - 97.5 MHz -----		

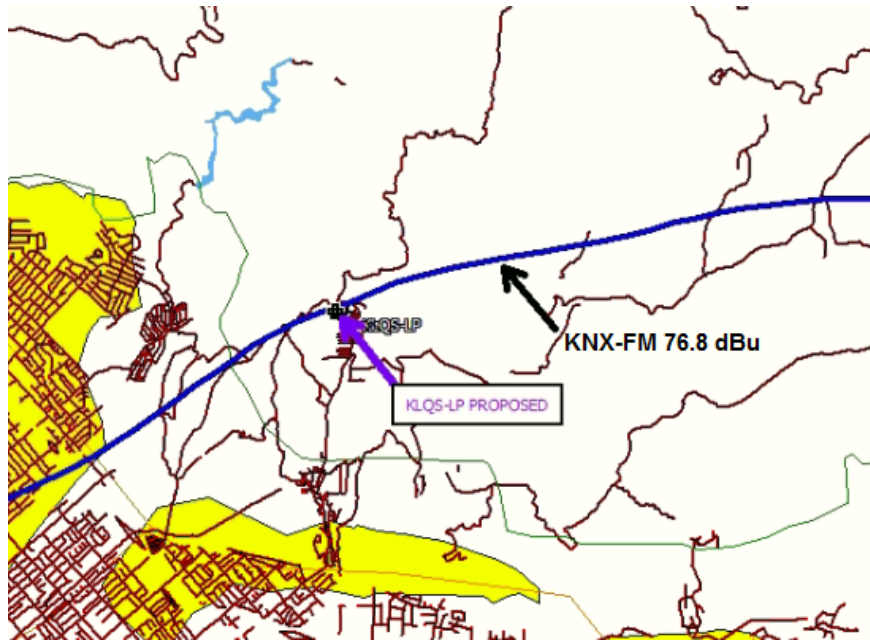
Call	Channel		Location		Azi	Dist	FCC	Margin
*KLAX-FM	LIC-Z	250B	East Los Angeles	CA	136.3	23.56	66.5	-42.9
*KNX-FM	LIC-D	246B	Los Angeles	CA	109.5	29.94	66.5	-36.6
KLQS-LP	CP	248L1	Agua Dulce	CA	314.1	0.03	23.5	-23.5
KLQS-LP	LIC	248L1	Santa Clarita	CA	342.5	7.22	23.5	-16.3
KLYY	LIC-D	248B	Riverside	CA	94.3	113.88	111.5	2.4
KHUG-LP	LIC	248L1	Castaic	CA	309.7	31.56	23.5	8.1
KTPI-FM	LIC	249A	Mojave	CA	14.3	75.84	55.5	20.3
KLSB	LIC	248B	Goleta	CA	279.5	147.54	111.5	36.0
KRJK	LIC	247A	Lamont	CA	342.1	102.27	55.5	46.8
K247CN	LIC	247D	Mojave	CA	14.3	75.84	20.5	55.3
K250BV	STA-D	250D	Ventura	CA	263.6	76.92	7.5	69.4
K250BV	LIC-D	250D	Ventura	CA	263.6	76.92	7.5	69.4

Ref station has protected zone issue: Mexico. Separation includes rounding.
 *Second Adjacent Channel Waiver Request

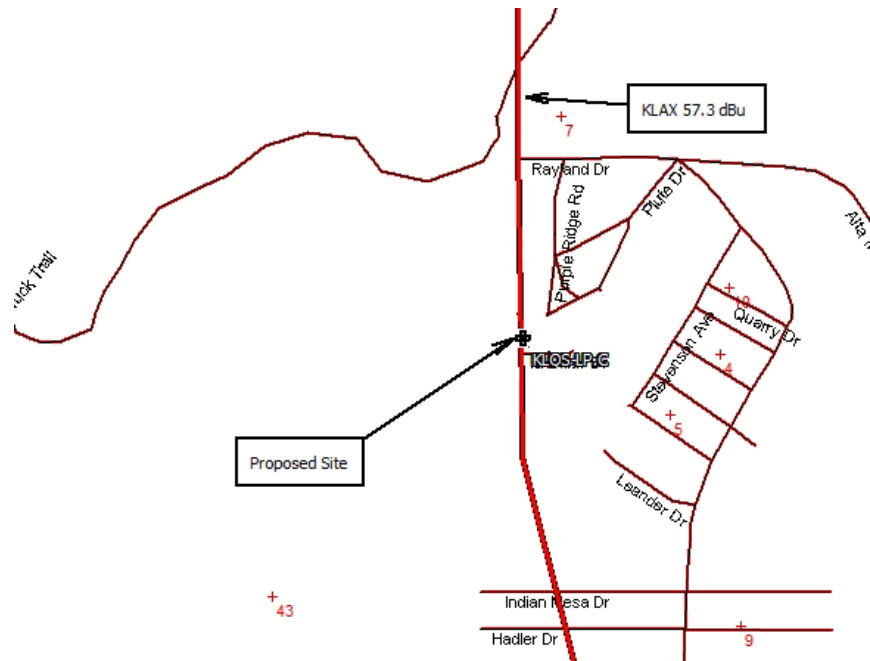
SECOND ADJACENT WAIVER REQUEST

KLAX-FM and KNX-FM are the second adjacent channels the facility is short spaced to.

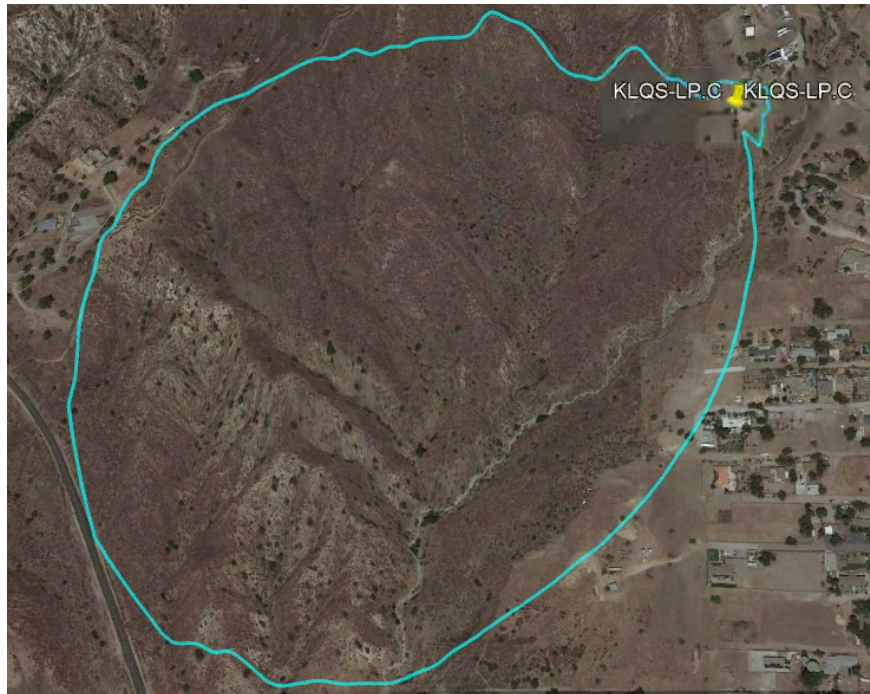
Regarding KNX-FM: At the proposed site, KNX-FM has a signal strength of 76.8 dBu (FCC).



Regarding KALX-FM: At the proposed site, KALX-FM has a signal strength of 57.3 dBu (FCC)



The value of 57.3 dBu (the lesser value between KNX and KLAX) will then be used to determine interference compliance. Interference will occur when the KLAX signal strength's interfering signal exceeds the desired signal by 40 dbu. So the area of predicted interference would then be bounded by the 97.3 dBu contour. To assure compliance, a directional antenna is proposed, with the 97.3 dBu contour plotted below.

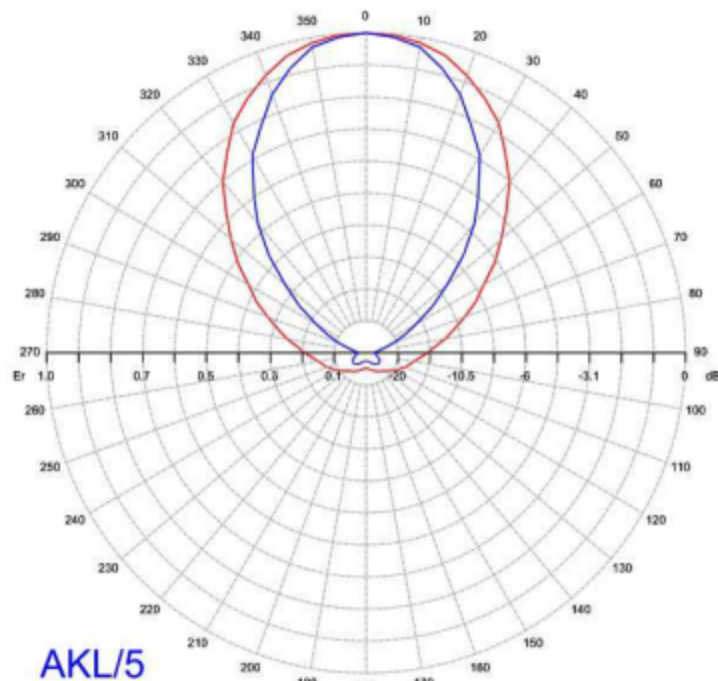


(black square in back of the building is a pool cover)

Due to zero population within this radiation radius, as demonstrated in the aerial shot, this meets the "Living Way" Criteria to qualify for a Waiver of 47 C.F.R. Section 73.807.

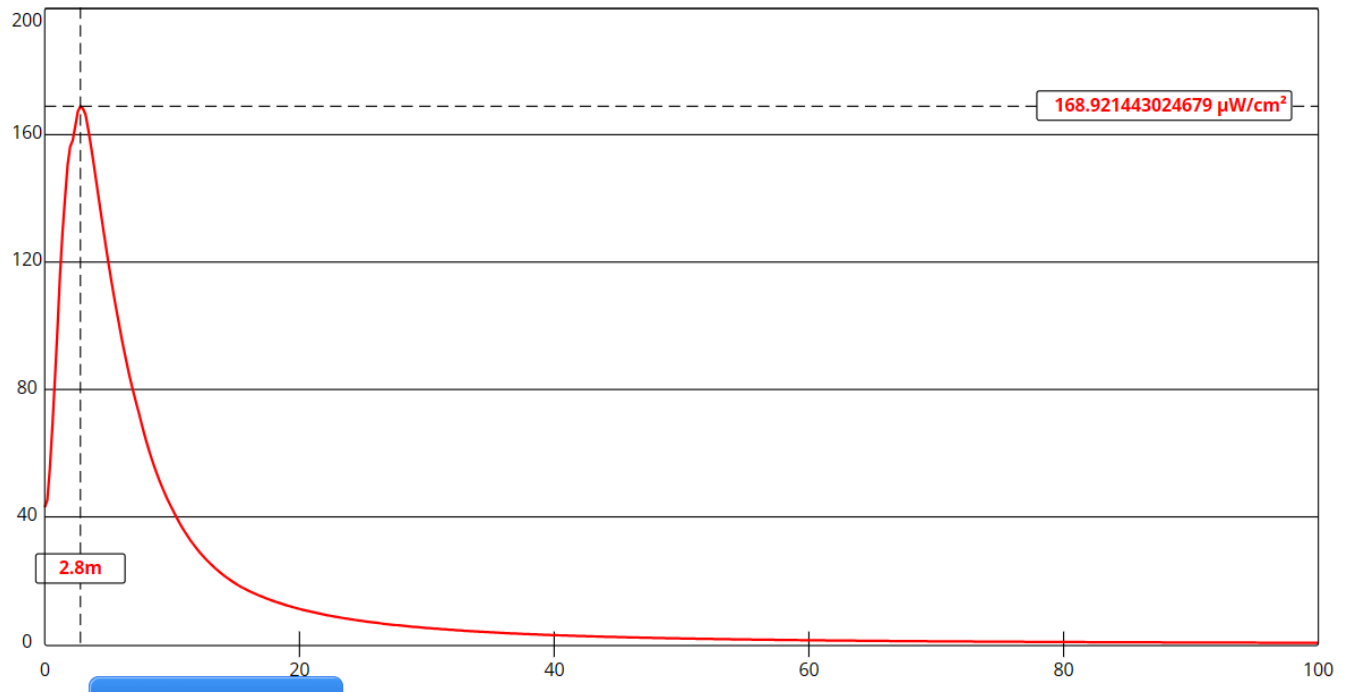
Applicant respectfully requests a "second adjacent channel waiver" with regards to Section 47 C.F.R. Section 73.807 of the FCC rules based upon the "Living Way" precedence (Living Way Ministries, Inc., Memorandum Opinion and Order, 17 FCC Red 17054, 17056, ¶ 5 (2002), recon. denied 23 FCC Red 15070 (2008)).

The antenna pattern is demonstrated below -- antenna model AKL/5 by Label Italy. Blue pattern demonstrated the V-pol pattern from their brochure.



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ENVIRONMENTAL COMPLIANCE



An opposed V dipole was used to gauge the maximum RF for the proposal in OET program FM Model for Windows adapted to Javascript (67 watts, 1-bay, H+V-pol). The maximum predicted RF exposure was 168.9 $\mu\text{W}/\text{cm}^2$ at 3 m away for the level of a 2 m person standing by the pole, 85% of the FCC Maximum Permissible Exposure (MPR) for 200 $\mu\text{W}/\text{cm}^2$ for uncontrolled environments.

The site will have a sign regarding RF exposure hazards to tower climbers posted. If any work needs to be done around the structure the RF power will be temporarily shut off.