

**KLQS-LP AGUA DULCE, CA
FAC ID NO 195731
MINOR CHANGE OF FACILITIES**

CHANNEL SPACING

Lancaster Educational Broadcast Service

REFERENCE		DISPLAY DATES
34 29 34.2 N.	CLASS = L1	DATA 05-14-19
118 18 41.4 W.	Current Spacings to 2nd Adj.	SEARCH 06-18-19
----- Channel 248 - 97.5 MHz -----		

Call	Channel	Location	Azi	Dist	FCC	Margin
KAMP-FM	LIC-D 246B	Los Angeles	CA 142.6	37.14	66.5	-29.4
KLAX-FM	LIC-Z 250B	East Los Angeles	CA 163.8	38.04	66.5	-28.5
KLYY	LIC-D 248B	Riverside	CA 104.6	111.51	111.5	0.01
KTPI-FM	LIC 249A	Mojave	CA 13.7	55.54	55.5	0.04
KHUG-LP	LIC 248L1	Castaic	CA 271.1	29.96	23.5	6.5
KRJK	LIC 247A	Lamont	CA 334.6	86.20	55.5	30.7
K287AL	CP 247D	Mojave	CA 13.7	55.54	20.5	35.0
KLSB	LIC 248B	Goleta	CA 271.8	151.22	111.5	39.7

Reference station has protected zone issue: Mexico
All separation margins include rounding

SECOND ADJACENT PROTECTION: Proposed is outside of the KLAX-FM 60 dBu contour (see Figure 1). Proposed is outside of the KAMP-FM 54 dBu protected contour (see Figure 2).

PROPOSED CHANNEL CHANGE: Per Section 73.870(a)(1) LPFM facilities may change channels “upon a technical showing of reduced interference, to any frequency.”

On current channel: Incoming interference from KLJR-FM: 42.7 dBu (Figure 3)

On proposed channel: Incoming interference from KHUG-LP: 41 dBu (Figure 4)

Other co-channel stations on proposed channel: According to Longley-Rice study, KLYY and KLSB are terrain-blocked (see Figures 5 and 6)

Hence, Channel 248 has less interference.

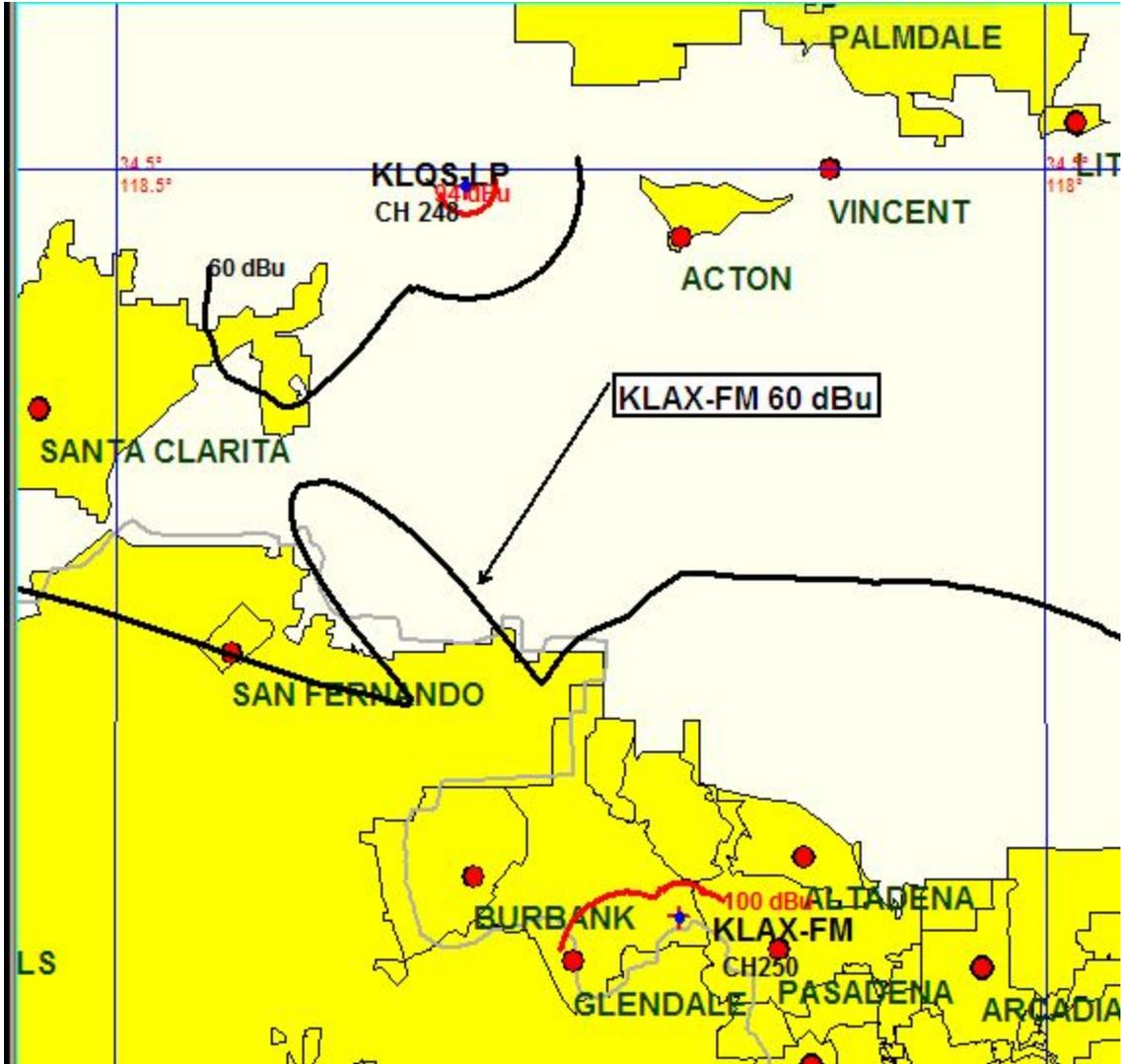


Figure 1: Proposed outside of KLAX-LP 60 dBu.

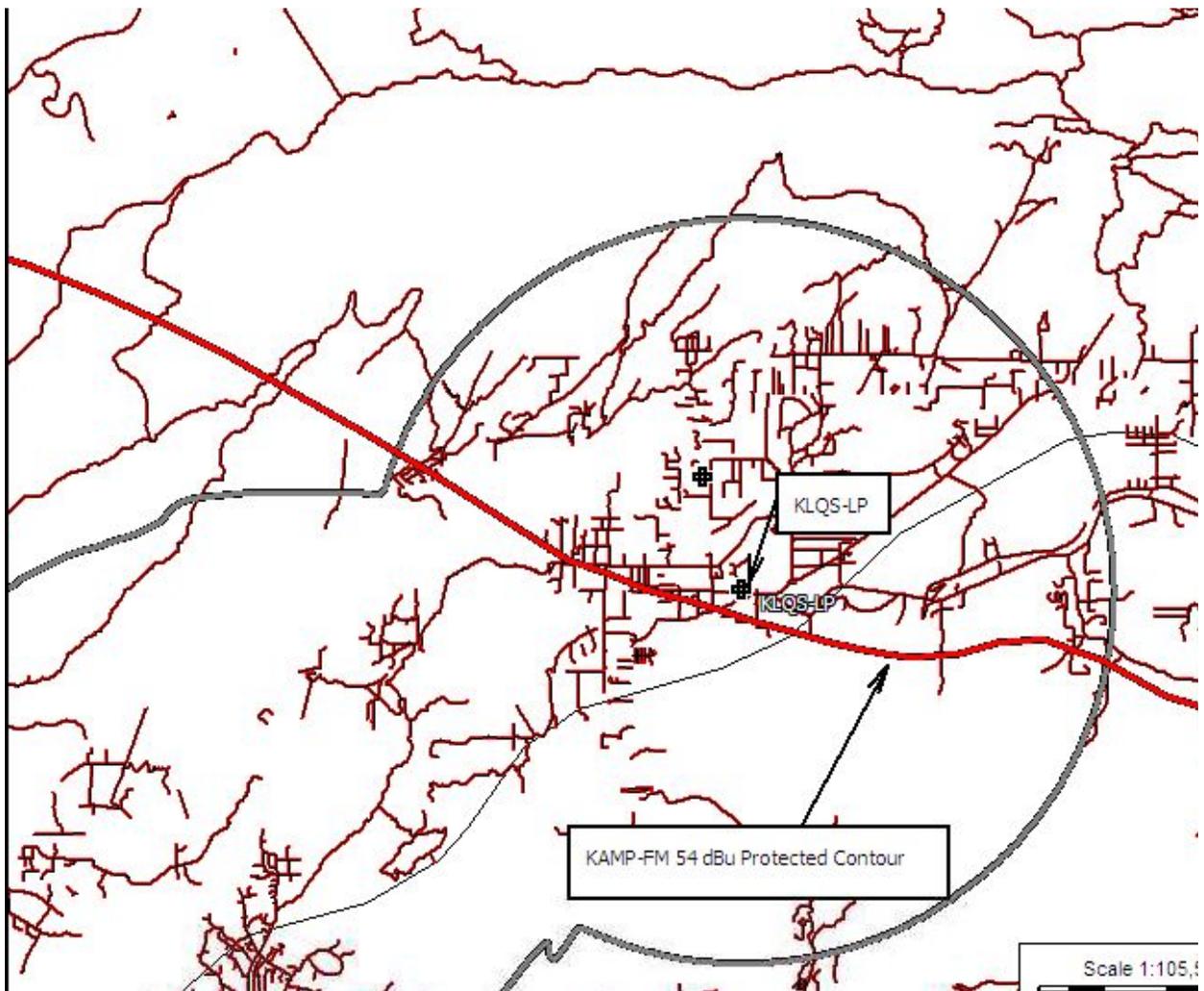


Figure 2: Proposed is outside KAMP-FM 54 dBu

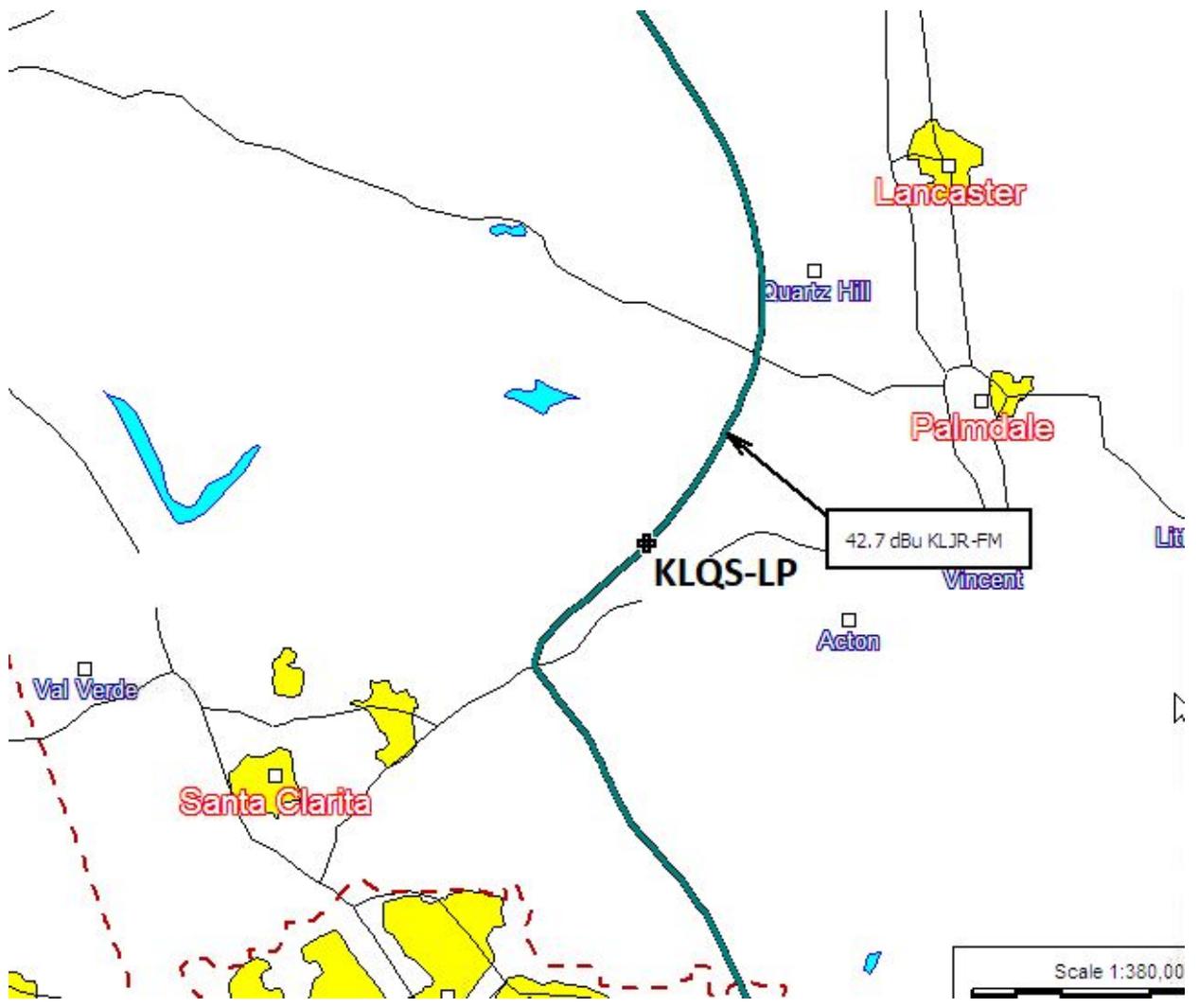


Figure 3: KLJR-FM 42.7 dBu interference contour at KLQS-LP site

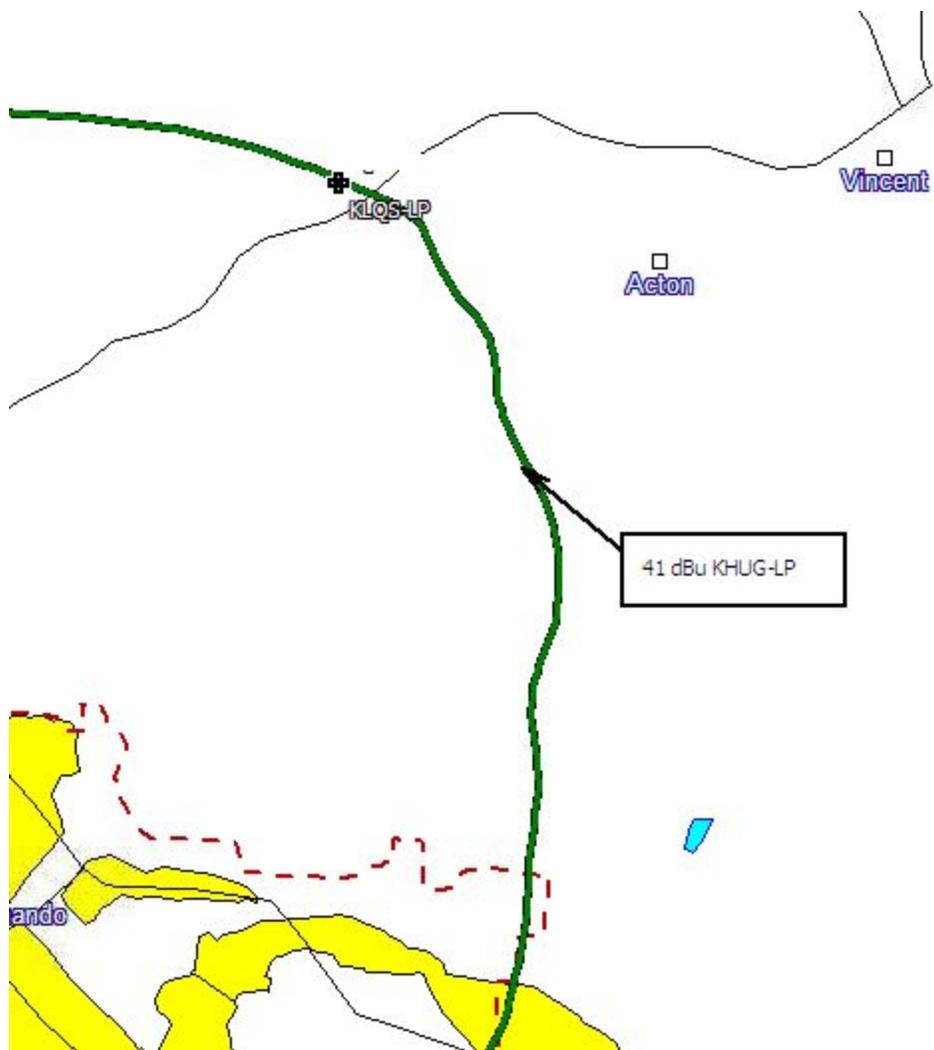


Figure 4: KHUG 41 dBu interference contour at proposed KLQS-LP site

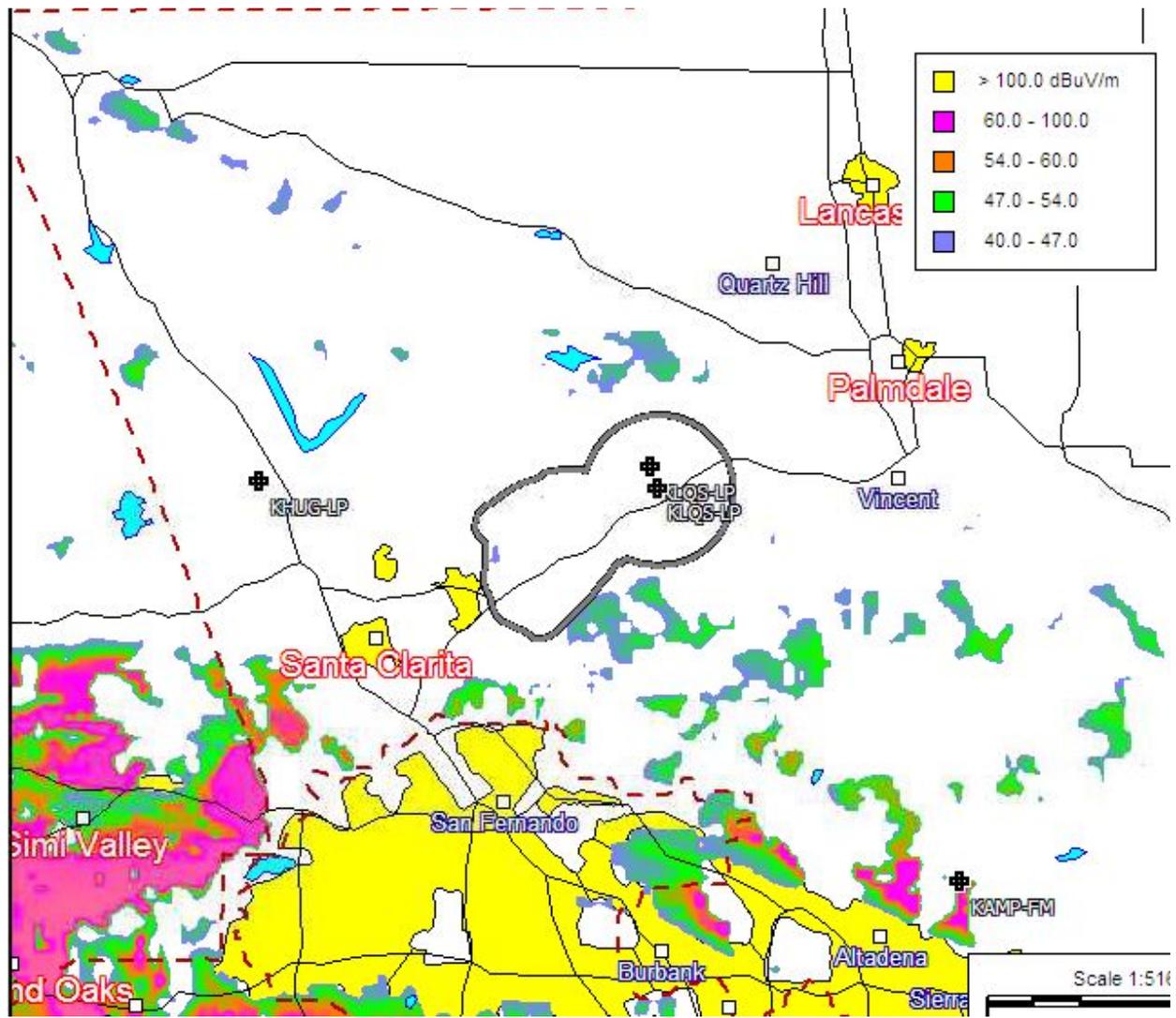


Figure 5: Propagation from co-channel KLSB-FM at the proposed site (TERRAIN-BLOCKED)

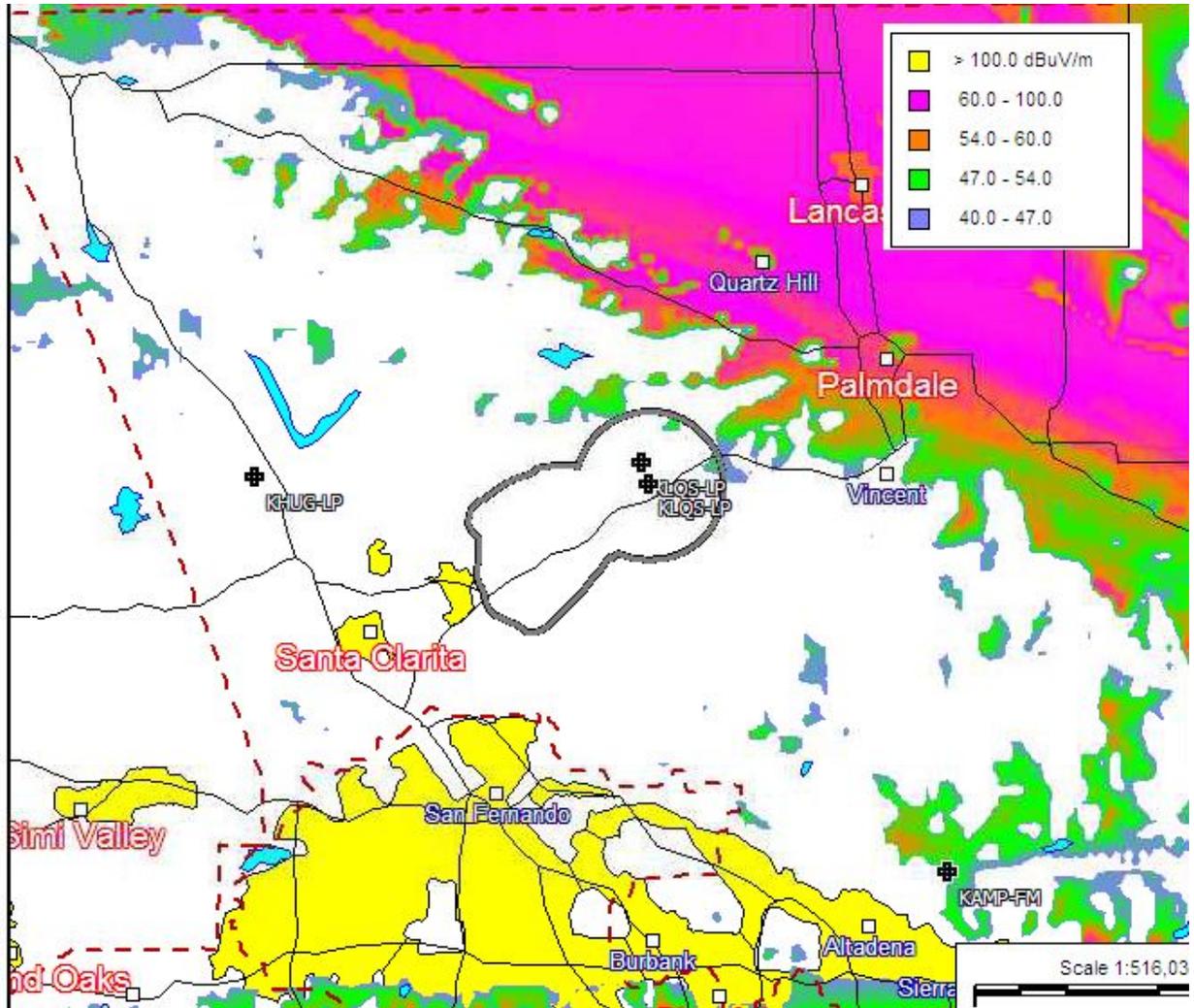


Figure 6: Propagation from co-channel KLYY at the proposed site (TERRAIN-BLOCKED)

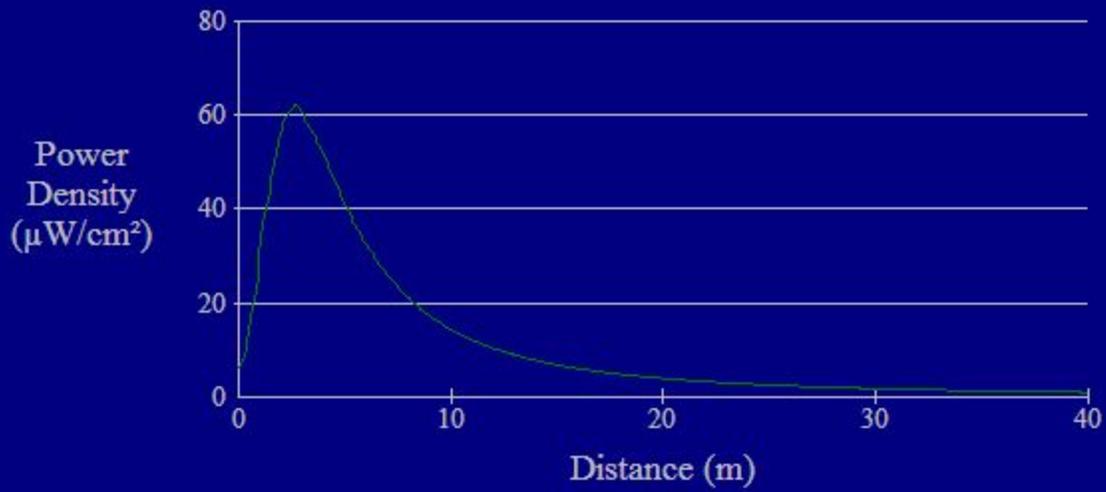
TOWAIR: PASS

DETERMINATION Results	
Antenna Structures whose total height (AGL) is <= 6.1 meters (20 feet) do not require registration	
Your Specifications	
NAD83 Coordinates	
Latitude	34-29-34.2 north
Longitude	118-18-44.7 west
Measurements (Meters)	
Overall Structure Height (AGL)	6.1
Support Structure Height (AGL)	0
Site Elevation (AMSL)	793
Structure Type	
MAST - Mast	

ENVIRONMENTAL PROTECTION ACT NIER ANALYSIS

The applicant proposes mounting a new antenna on a mast, at 6.1 m AGL, with 50 watts ERP. A one-bay dipole antenna is proposed. Since the precise antenna is not modeled in FM Model (online version), the "Shively Model 6513/6510 Vertical Dipole" is the closest setting for downward radiation. The antenna is therefore 4.3m above a six foot human. FM Model predicted a maximum RF exposure of 62.1 $\mu\text{W}/\text{cm}^2$, at 2.72 meters from the tower base (see next page). This represents 31% of the Maximum Permissible Exposure (MPE) of 200 $\mu\text{W}/\text{cm}^2$ for uncontrolled environments. There are no other transmitting RF facilities in the area. Site is on private property. The applicant will ensure that a warning sign is posted.

Power Density vs Distance



Office of Engineering and Technology

Distance (m):	<input type="text" value="40"/>	Antenna Type:	<input type="text" value="Shively Model 6513/6510 Vertical Dipole"/>
Horizontal ERP (W):	<input type="text" value="50"/>	Number of Elements:	<input type="text" value="1"/>
Vertical ERP (W):	<input type="text" value="50"/>	Element Spacing:	<input type="text" value="1"/>
Antenna Height (m):	<input type="text" value="4.3"/>		

Update Graph