

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

MODIFICATION OF CP

PARAMETERS

Channel	248L1
New Location:	34° 19' 04.5" N 118° 22' 24.5" W -- NAD 83
Antenna AGL	6.8 m
Tower Total	6.8 m
Antenna Ground	2125 ft = 647.7 m (see Figure 1)
Antenna COR	654.5 m
HAAT	33 m (see Figure 2)
Power	77 w (85 w possible, but 77 w chosen for second-adjacent channel limitations)

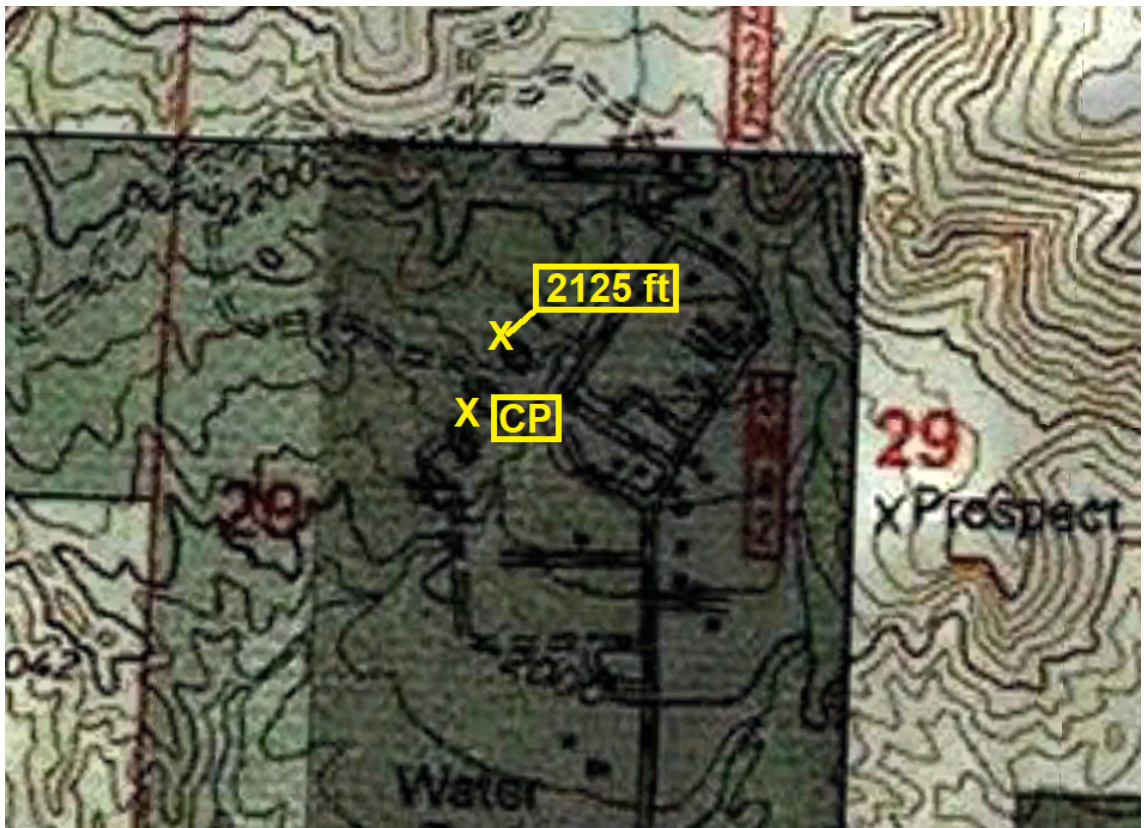


Figure 1: Proposed Site

Antenna Height Above Average Terrain Calculations -- Results

Input Data

Latitude **34° 19' 4.5" North**
Longitude **118° 22' 24.5" West (NAD 83)**

Height of antenna radiation center above mean sea level: **654.5 meters AMSL**

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

Results

Calculated HAAT = **33 meters**

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

Individual "Radial HAAT" Values, in meters

0°	-70.2 m
45°	-398.5 m
90°	-291.0 m
135°	159.1 m
180°	373.1 m
225°	349.0 m
270°	152.1 m
315°	-6.0 m

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

Select Contour Type: F(50,50) Service Contour -- FM and NTSC (analog) TV
F(50,10) Interfering Contour
F(50,90) Digital TV Service Contour

Select Channel Range:
(not TV Virtual Channel) FM Radio or TV Transmit Channels 2-6
TV Transmit Channels 7-13
TV Transmit Channels 14-69

Find This: Field Strength, given a Distance (in km)
Distance, Given a Field Strength (in dBu)
FM ERP, given Distance and Field Strength [F(50,50) Service Contour]

ERP (kW) Distance (km)

HAAT (meters) Field (dBu)

Results:

Calculated ERP (rounded per Section 73.212) = **0.085 kW**
(FM 60 dBu Service Contour only)

Unrounded ERP = **0.084556 kW**

Figure 3: Maximum LPFM Power.

TOWAIR (PASS)

DETERMINATION Results							
PASS SLOPE(100:1): NO FAA REQ-RWY MORE THAN 10499 MTRS & 7288.68 MTRS (7.28870 KM) AWAY							
Type	C/R	Latitude	Longitude	Name	Address	Lowest Elevation (m)	Runway Length (m)
AIRP	R	34-15-49.00N	118-25-5.00W	WHITEMAN	LOS ANGELES LOS ANGELES, CA	292.6	1255.8
Your Specifications							
NAD83 Coordinates							
Latitude						34-19-04.5 north	
Longitude						118-22-24.5 west	
Measurements (Meters)							
Overall Structure Height (AGL)						6.8	
Support Structure Height (AGL)						6.8	
Site Elevation (AMSL)						647.7	
Structure Type							
POLE - Any type of Pole							

CHANNEL SPACING

Lancaster Educational Broadcast Service

REFERENCE

34 19 04.50 N.

118 22 24.50 W.

CLASS = L1

Current Spacings to 2nd Adj.

DISPLAY DATES

DATA 05-30-23

SEARCH 08-31-23

----- Channel 248 - 97.5 MHz -----

Call	Channel	Location	Azi	Dist	FCC	Margin
*KLAX-FM	LIC-Z	250B East Los Angeles	CA	136.5	23.64	66.5 -42.9
*KNX-FM	LIC-D	246B Los Angeles	CA	109.7	29.97	66.5 -36.5
KLQS-LP	CP	248L1 Agua Dulce	CA	202.4	0.10	23.5 -23.4
KLQS-LP	LIC	248L1 Santa Clarita	CA	342.1	7.12	23.5 -16.4
KLYY	LIC-D	248B Riverside	CA	94.3	113.88	111.5 2.4
KHUG-LP	LIC	248L1 Castaic	CA	309.5	31.49	23.5 8.0
KTPI-FM	LIC	249A Mojave	CA	14.3	75.72	55.5 20.2
KLSB	LIC	248B Goleta	CA	279.5	147.54	111.5 36.0
KRJK	LIC	247A Lamont	CA	342.1	102.16	55.5 46.7
K247CN	LIC	247D Mojave	CA	14.3	75.72	20.5 55.2

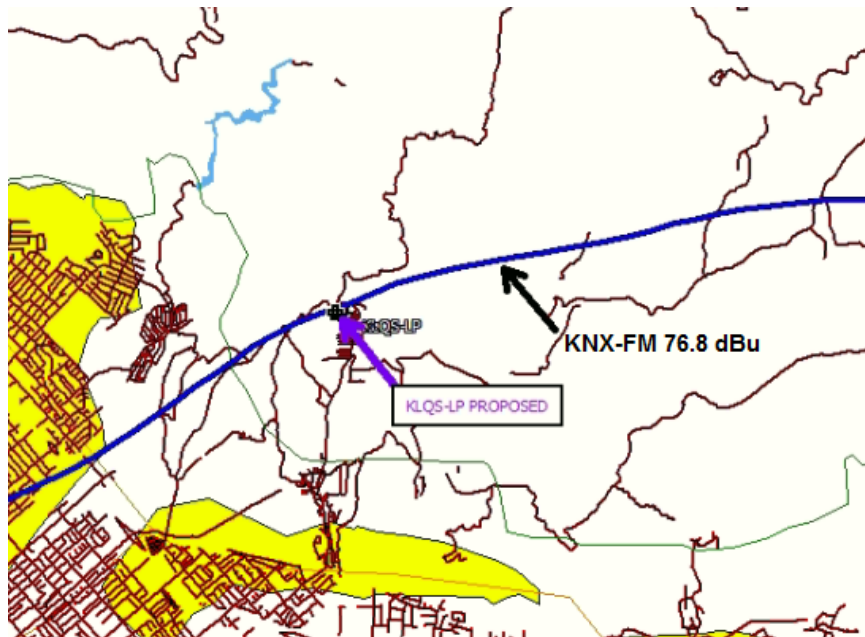
K250BV	STA-D	250D	Ventura	CA	263.5	76.95	7.5	69.5
K250BV	LIC-D	250D	Ventura	CA	263.5	76.95	7.5	69.5

Reference station has protected zone issue: Mexico
 All separation margins include rounding
 *See second adj waiver request

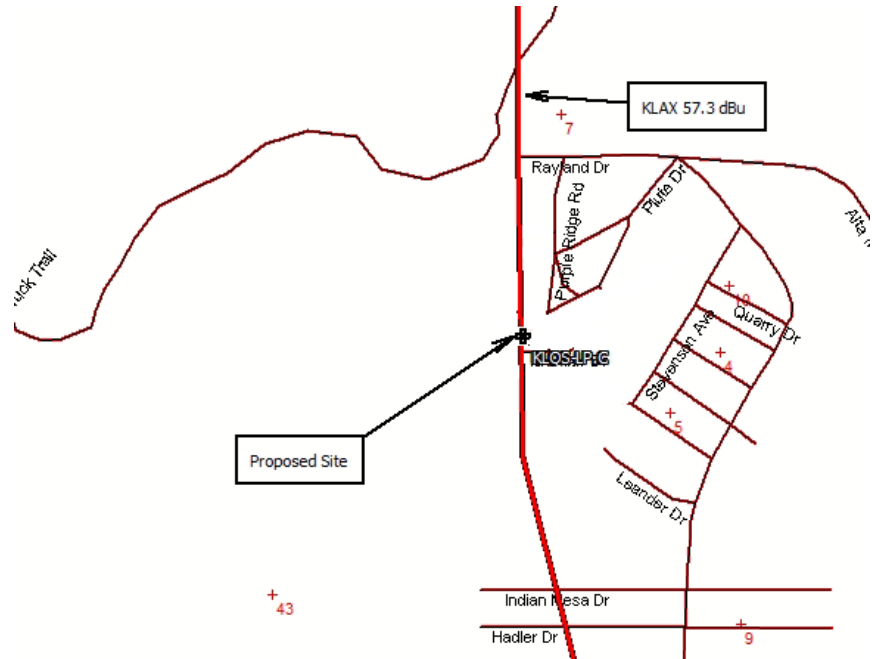
SECOND ADJACENT WAIVER REQUEST

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

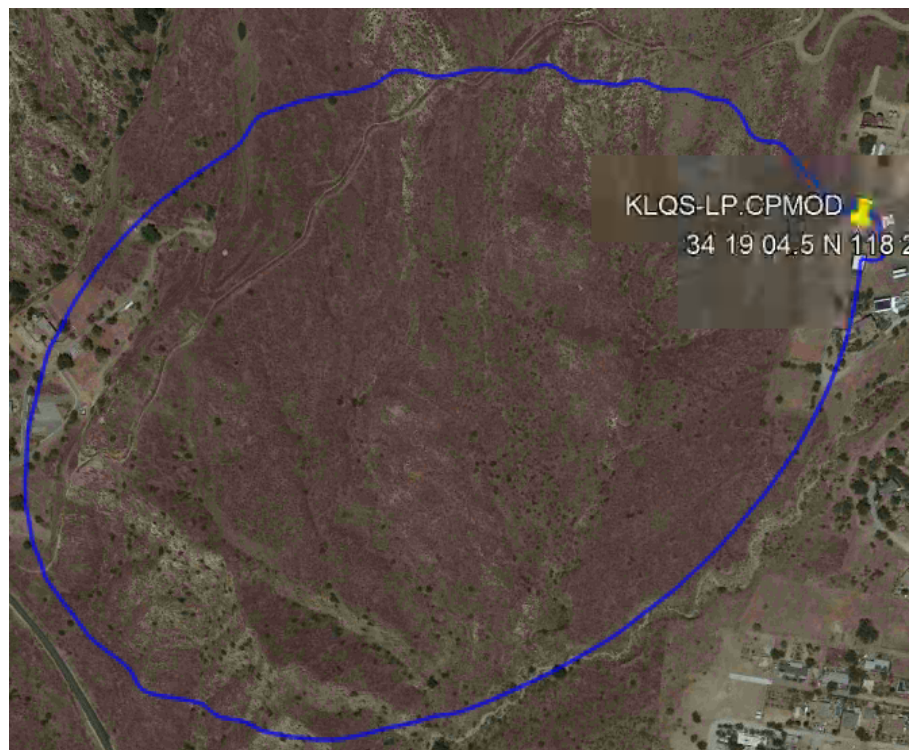
Regarding KNX-FM: At the proposed site, KNX-FM has a signal strength of 76.8 dBu (FCC).

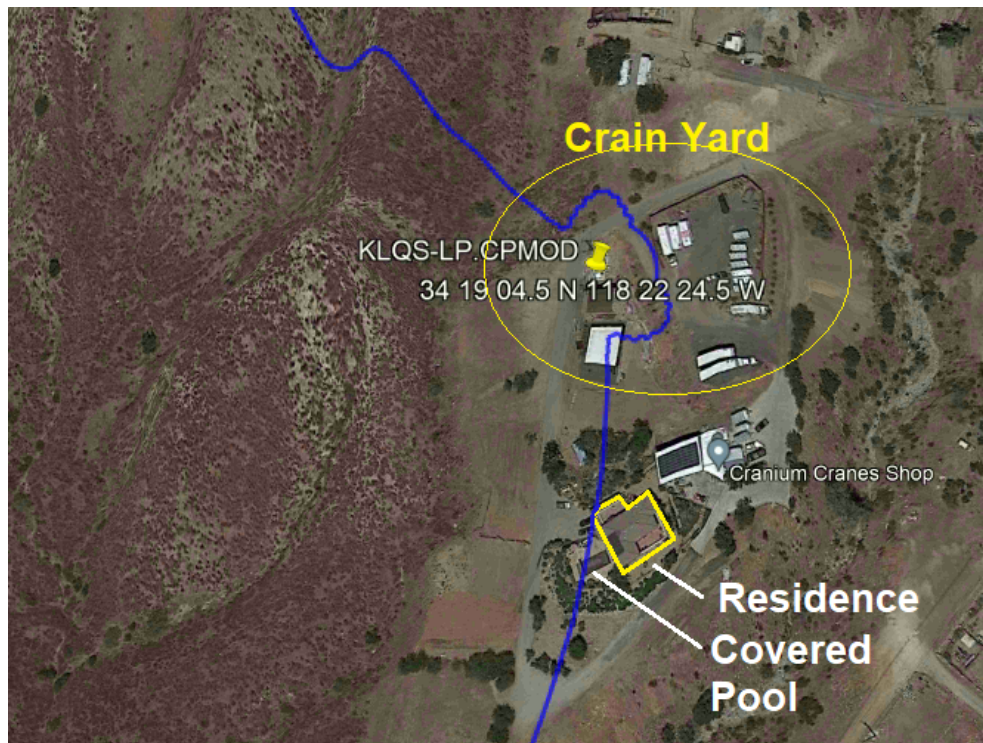


Regarding KALX-FM: At the proposed site, KALX-FM has a signal strength of 57.3 dBu (FCC)



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.



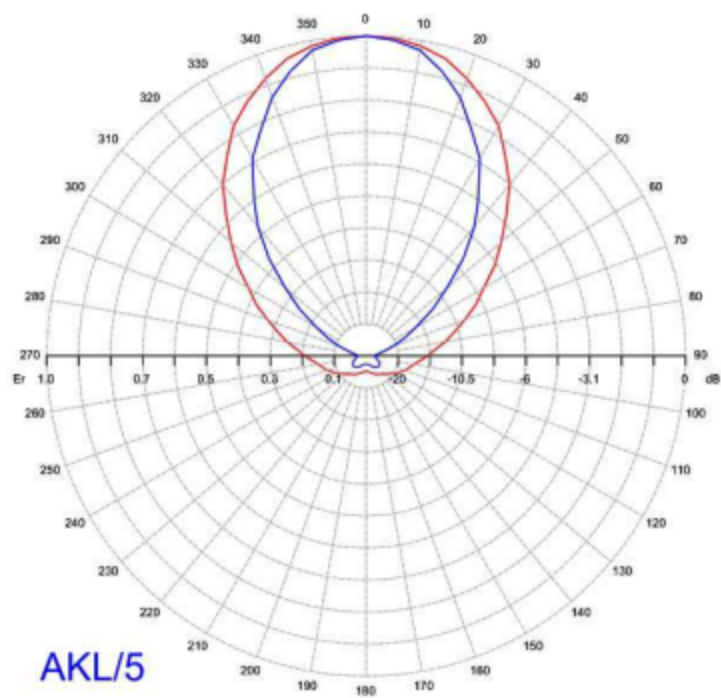


Black square in back of the building is a pool cover. Crain yard/truck storage/ storage area pictured above the residence.

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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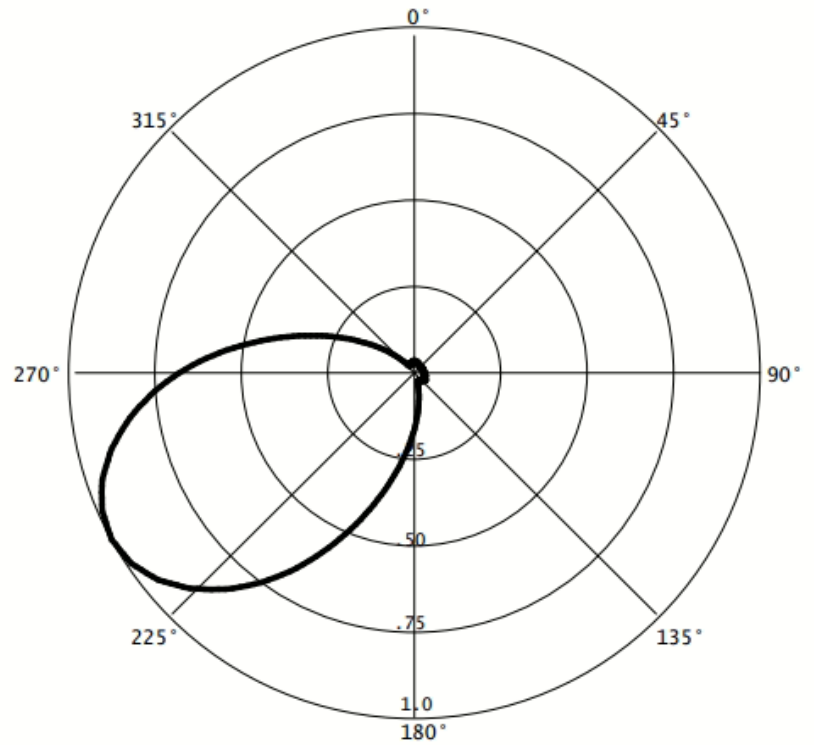
KLQS-LP.C

08-31-2023

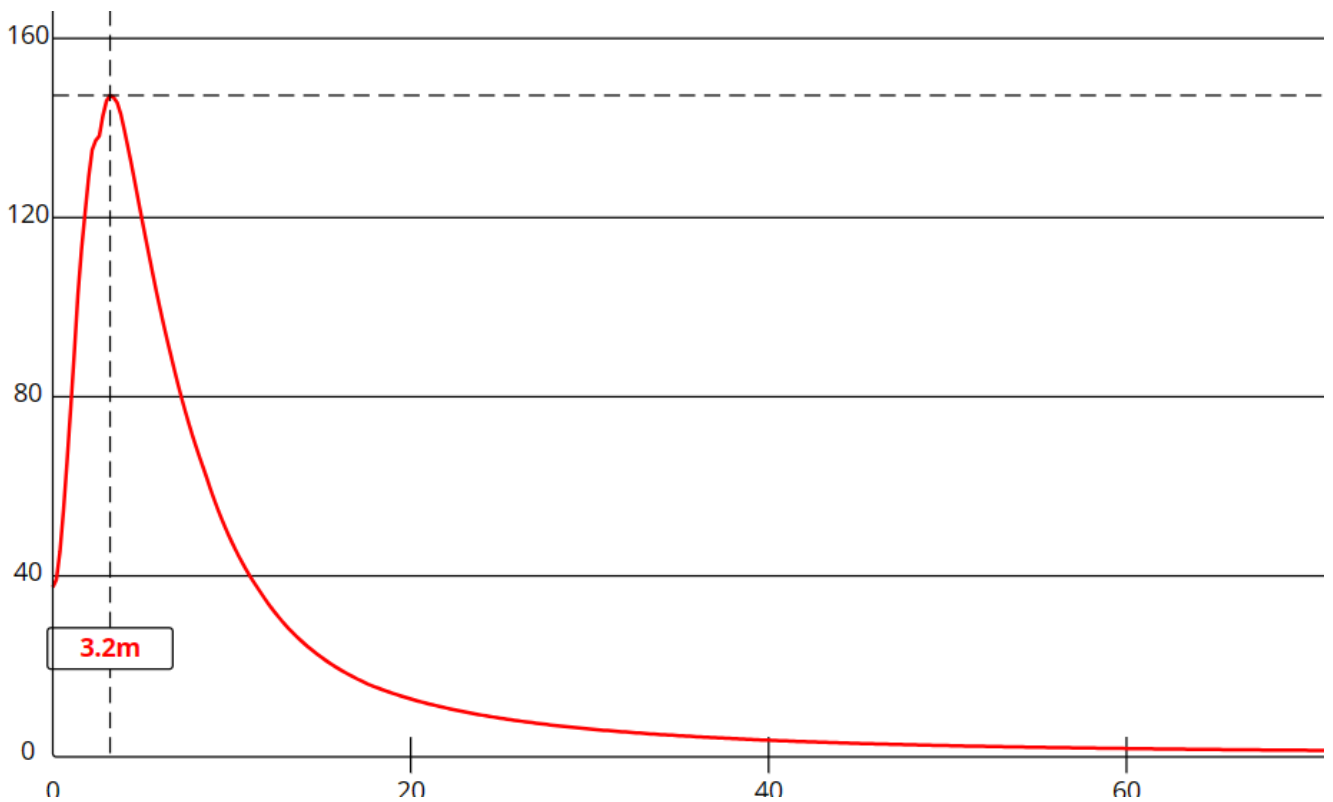
RMS(V)= .401

Graph is Relative Field

Azi	Field	dbk	kw
000	0.036	-40.009	0.000
010	0.034	-40.506	0.000
020	0.028	-42.192	0.000
030	0.025	-43.176	0.000
040	0.025	-43.176	0.000
050	0.025	-43.176	0.000
060	0.025	-43.176	0.000
070	0.025	-43.176	0.000
080	0.025	-43.176	0.000
090	0.025	-43.176	0.000
100	0.028	-42.192	0.000
110	0.031	-41.308	0.000
120	0.036	-40.009	0.000
130	0.034	-40.506	0.000
140	0.031	-41.308	0.000
150	0.025	-43.176	0.000
160	0.031	-41.308	0.000
170	0.077	-33.405	0.000
180	0.165	-26.785	0.002
190	0.288	-21.947	0.006
200	0.452	-18.032	0.016
210	0.642	-14.984	0.032
220	0.817	-12.891	0.051
230	0.944	-11.636	0.069
240	0.997	-11.161	0.077
250	0.961	-11.481	0.071
260	0.846	-12.588	0.055
270	0.680	-14.485	0.036
280	0.489	-17.349	0.018
290	0.318	-21.087	0.008
300	0.186	-25.745	0.003
310	0.091	-31.954	0.001
320	0.036	-40.009	0.000
330	0.025	-43.176	0.000
340	0.028	-42.192	0.000
350	0.034	-40.506	0.000



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 (77 watts, 1-bay, H+V-pol). The maximum predicted RF exposure was $147.3 \mu\text{W}/\text{cm}^2$ at 3.2 m away for the level of a 1.7m person standing by the pole, 74% 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.