

Consolidated Engineering Statement

New LPFM

CA Crescent City

Calvary Chapel Of The Redwoods

Robert Moore
12/7/2023

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Abstract

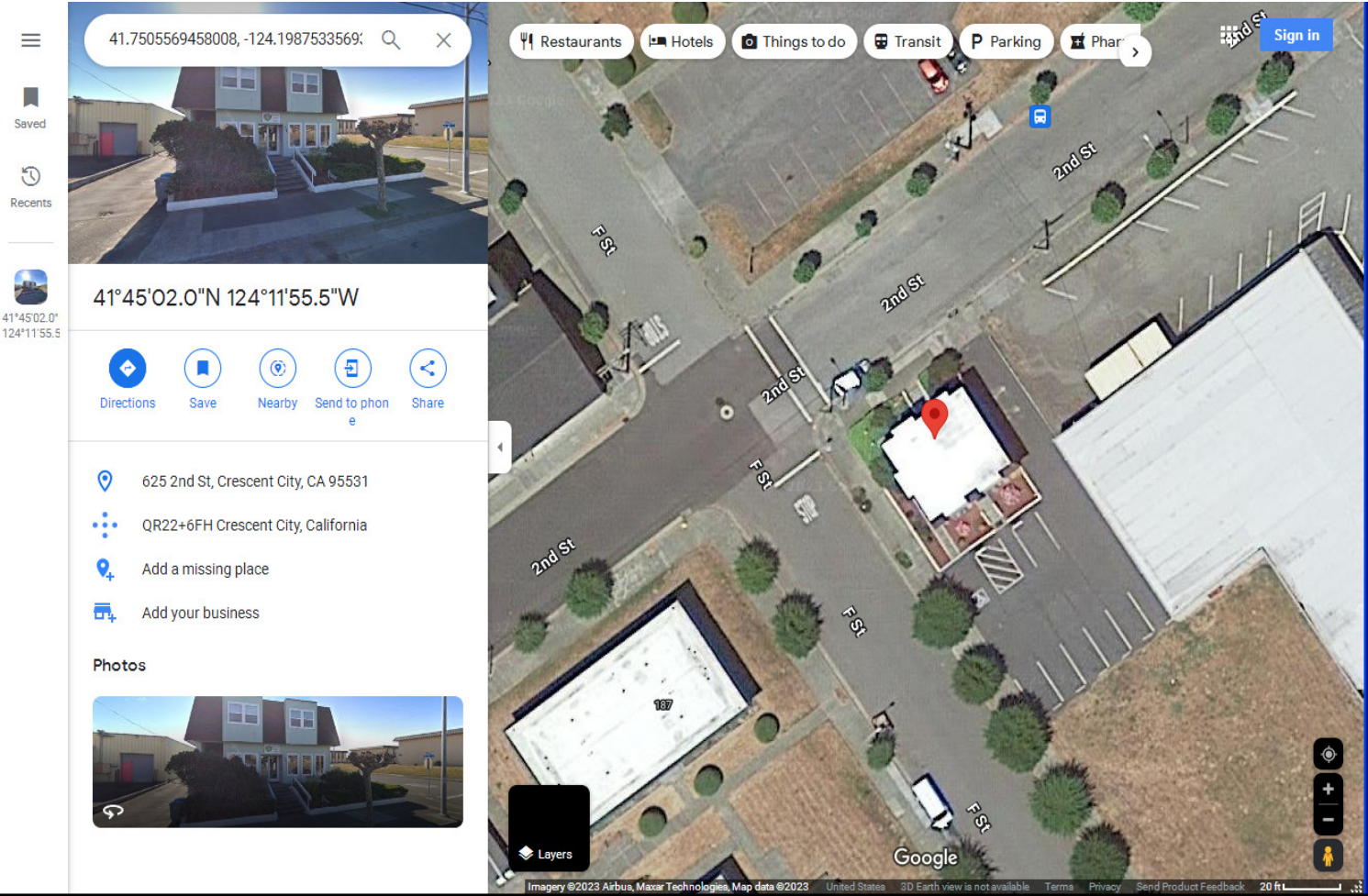
This application proposes a new LPFM in Crescent City on channel 281 (104.1 MHz). The proposed transmit site is fully spaced to all other facilities and is not an aeronautical obstruction.

If this application is granted, the applicant will divest their current facility in Smith River (since the original site has been lost after the property was sold). Temporary STA sites have been utilized, but the church is relocating to Crescent City.

Coordinate acquisition

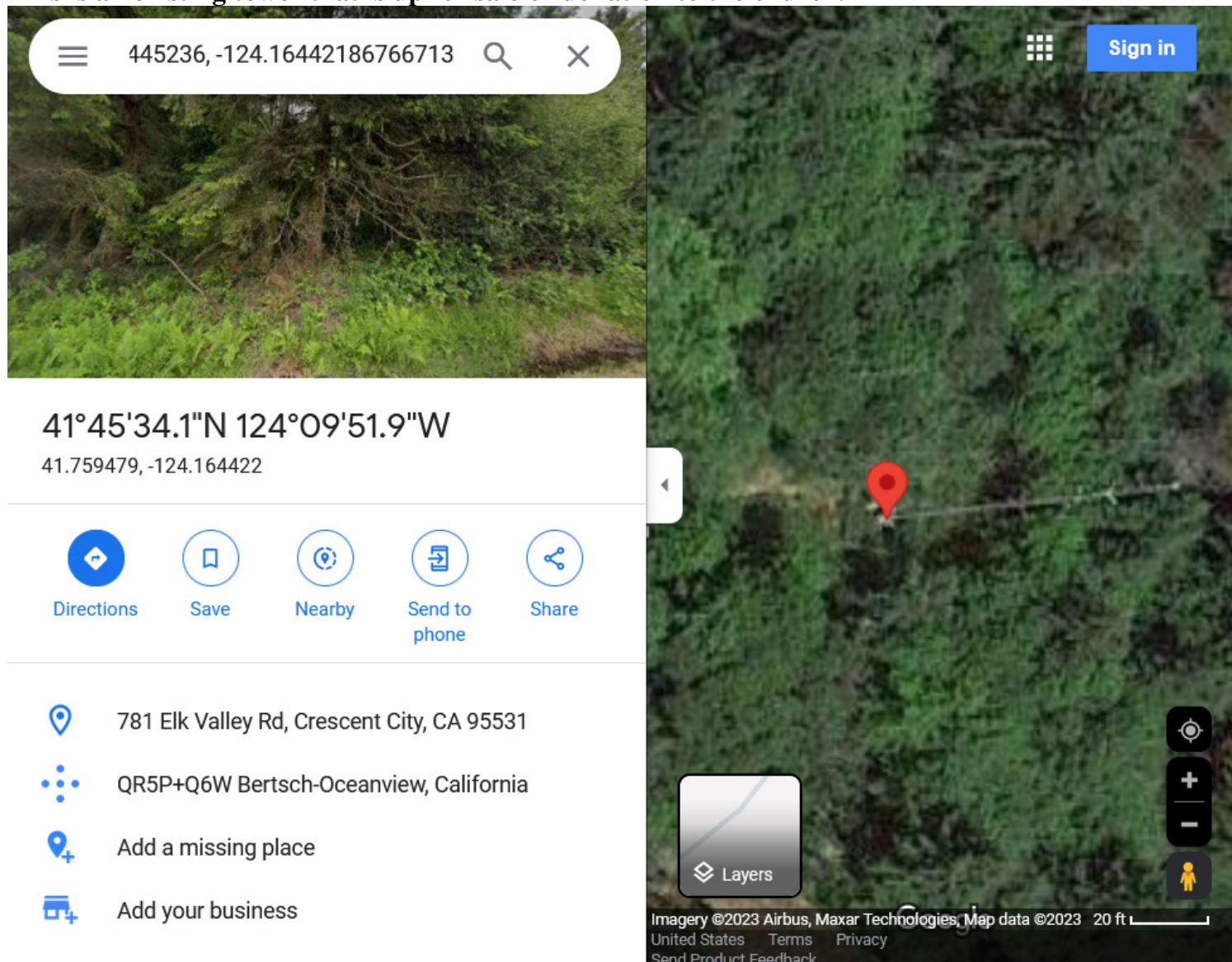
Church site:

625 2nd St.
Crescent City, CA 95531



Tower Site:

This is an existing tower that is up for sale or donation to the church.



Site Elevation:

```
C:\WINDOWS\system32\cmd.exe
#####
GABRIEL 5.0
#####

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- Purpose: Retrieves elevation at a given set of coordinates
- Input: Latitude and Longitude (NAD 83)
- Datasource: USGS Elevation Point Query Service
- Host: https://apps.nationalmap.gov/epqs/
- API Documentation: https://epqs.nationalmap.gov/v1/docs

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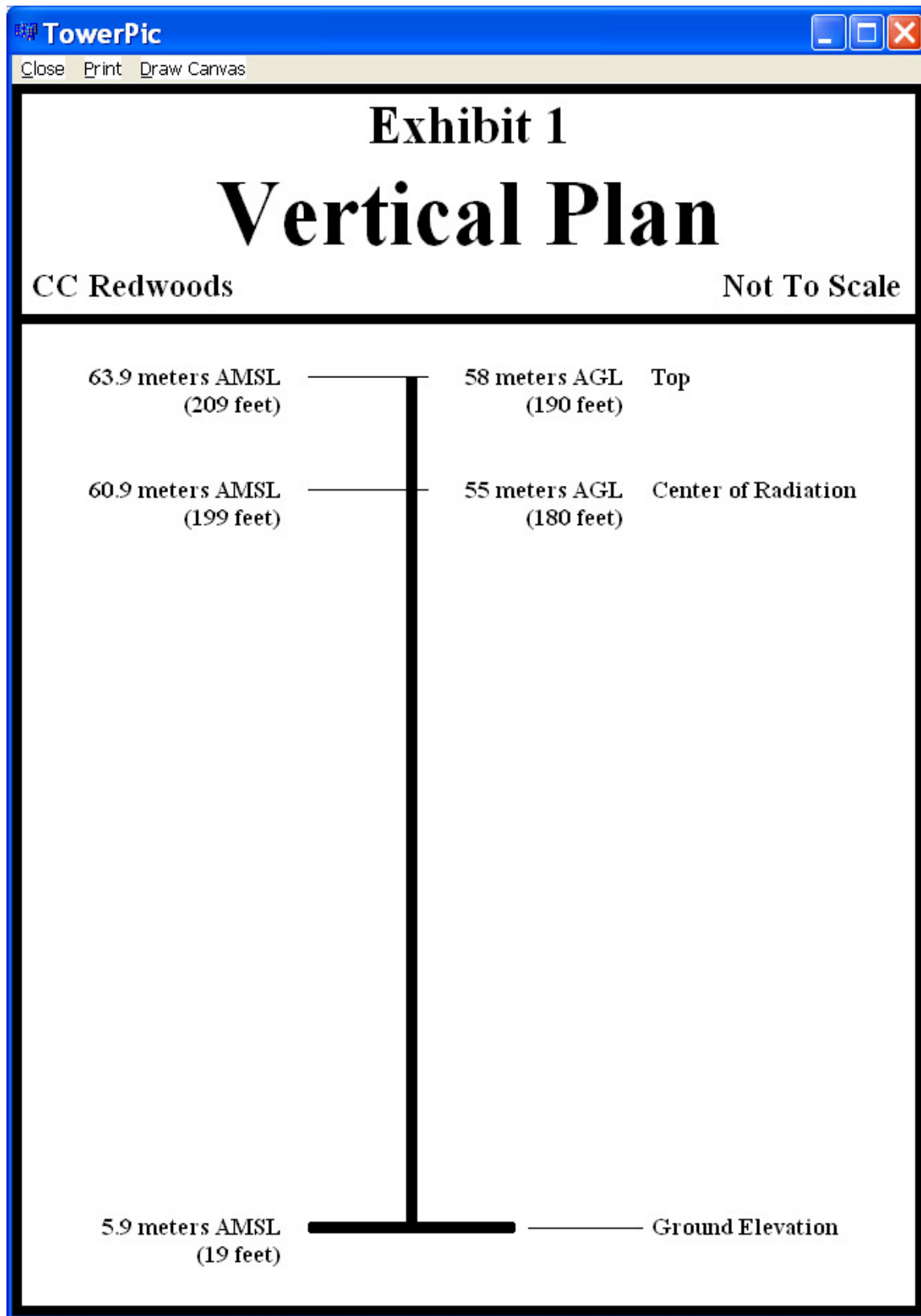
Coordinates received: 41.759472, -124.164413
                     41 45 34.1      124  9 51.9

Elevation in feet:    19.5
Elevation in meters:  5.9

Saved to c:\Seraph\Gabriel\output.txt

< Press Enter to continue >
```

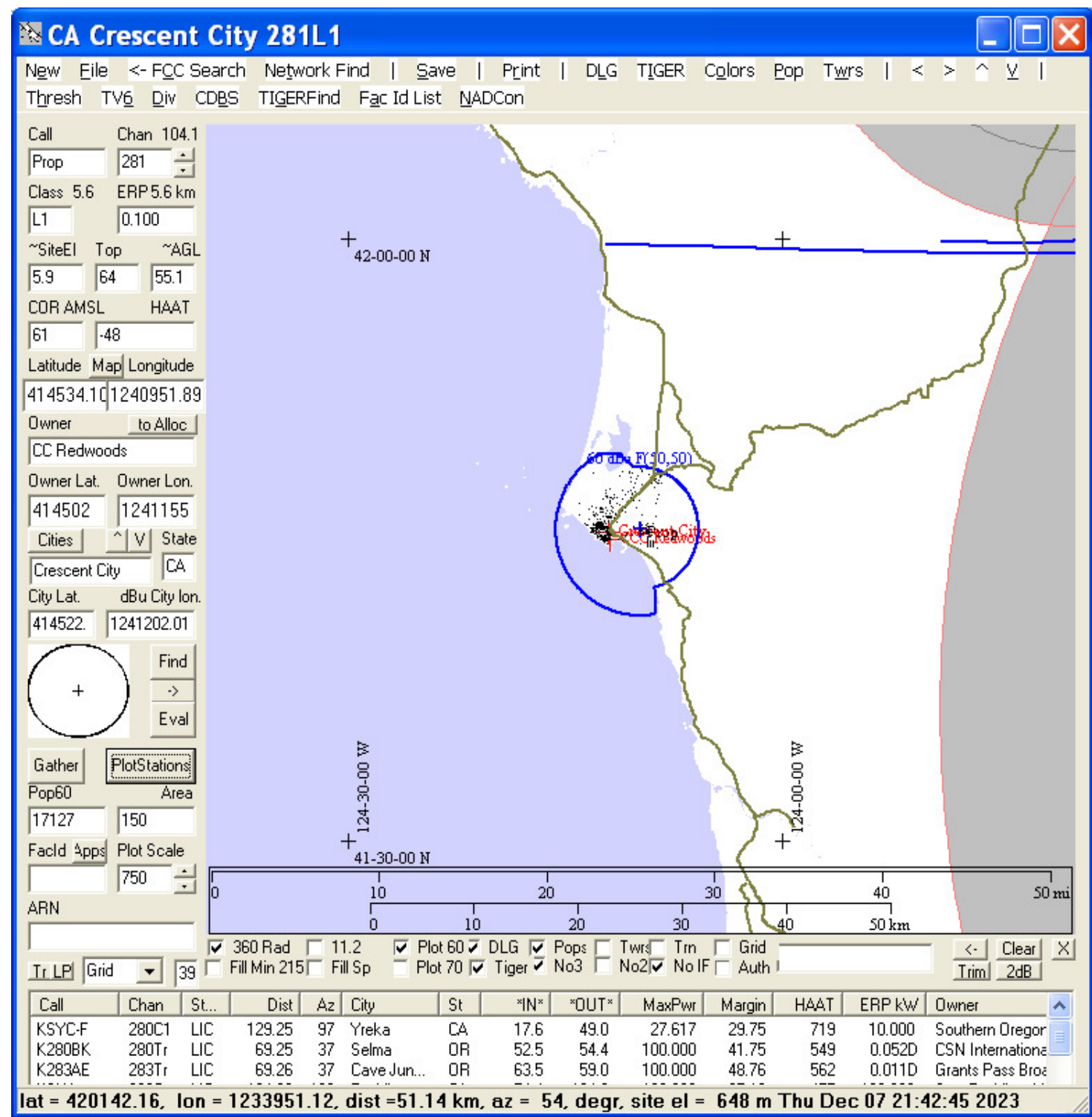
FAA Clearance



DETERMINATION Results							
PASS SLOPE(100:1)NO FAA REQ - 5584.0 Meters (18319.9 Feet)away & below slope by 8.0 Meters (26.25 Feet)							
Type	C/R	Latitude	Longitude	Name	Address	Lowest Elevation (m)	Runway Length (m)
AIRP	R	41-46-32.00N	124-13-41.00W	JACK MC NAMARA FLD	DEL NORTE CRESCENT CITY, CA	15.4	1524.5999999999999
PASS SLOPE(100:1): NO FAA REQ-RWY MORE THAN 10499 MTRS & 6492.84 MTRS (6.49279 KM) AWAY							
Type	C/R	Latitude	Longitude	Name	Address	Lowest Elevation (m)	Runway Length (m)
AIRP	R	41-46-24.00N	124-14-25.00W	JACK MC NAMARA FLD	DEL NORTE CRESCENT CITY, CA	15.4	1524.5999999999999
Your Specifications							
NAD83 Coordinates							
Latitude						41-45-34.1 north	
Longitude						124-09-51.9 west	
Measurements (Meters)							
Overall Structure Height (AGL)						58	
Support Structure Height (AGL)						0	
Site Elevation (AMSL)						5.8	
Structure Type							
GTOWER - Guved Structure Used for Communication Purposes							

Channel Availability

The channel is completely uncontested in this remote area: Grey areas are potentially forbidden.



Closeup

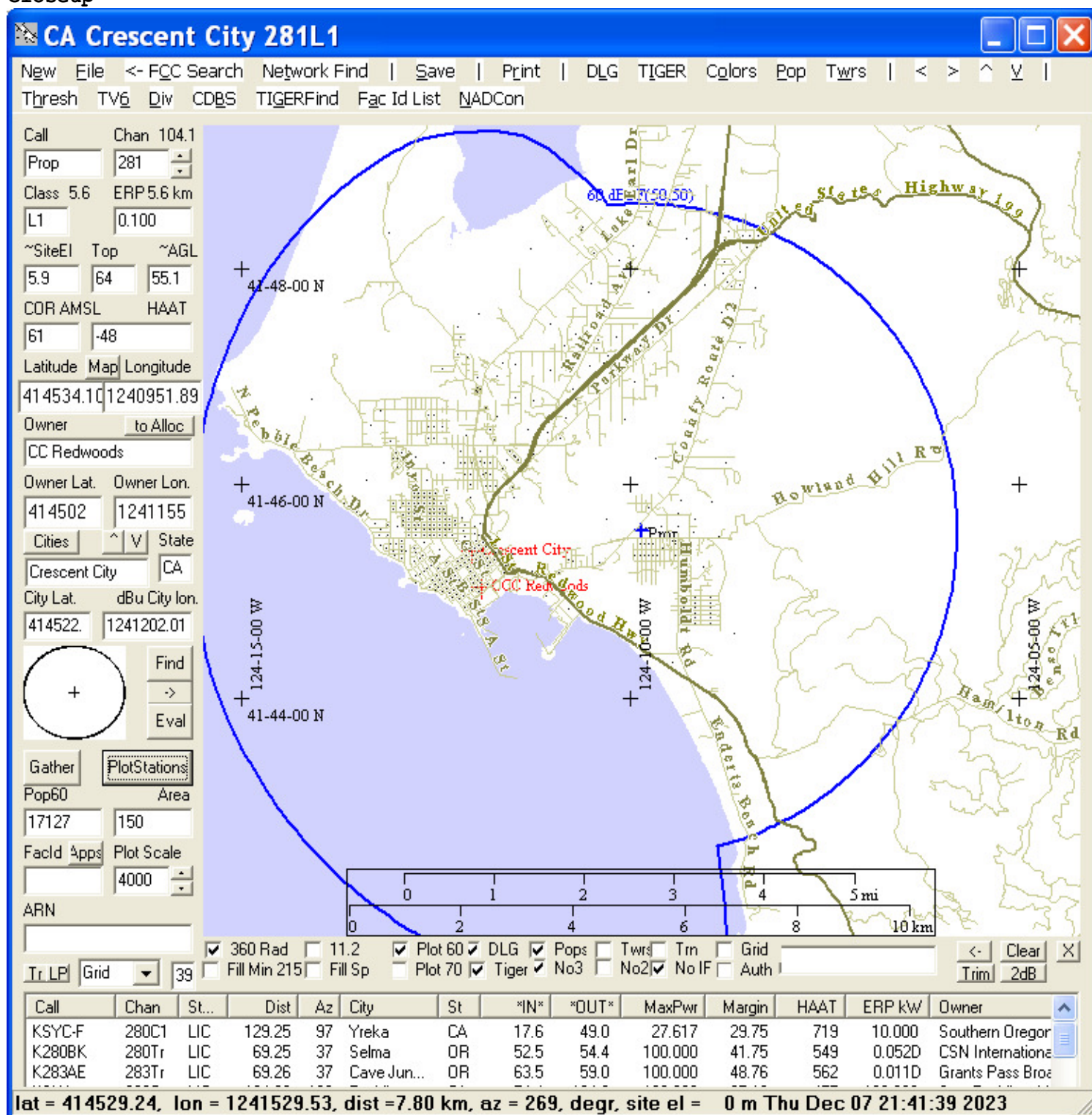


Exhibit 15

CC Redwoods

Reference 281L1 ERP 0.100 kW HAAT -48 m COR 61 m AMSL
 414534.10 N 104.1 MHz Average protected F(50,50) 5.6 km
 1240951.8 W Crescent City, CA

ChnCl	Call	Stat	Azi	Dist	FacId	Lat	Sig	dBu
	Pwr	COR	HAAT		ARN	Lon	Req.	Margin
	Owner			City		St		
280C1	KSYC-F	LIC	97	129.25	15314	413635.49		
	10.000	1815	719	0000189712		1223730.00	99.50R	29.75M per 73.807
	Southern Oregon Univ			Yreka		CA		
280Tr	K280BK	LIC	37	69.25	71989	421530.40		
	0.052D	1228	549	BMLFT20100709AI		1233947.19	27.50R	41.75M per 73.807
	CSN International			Selma		OR		
283Tr	K283AE	LIC	37	69.26	24826	421528.40		
	0.011D	1237	562	BLFT19950522TD		1233943.21	20.50R	48.76M per 73.807
	Grants Pass Broadcas			Cave Junction		OR		

FMCommander @V-Soft Communications®

File Print Settings Class Channel ≤ Down ≥ Up Find Views WatchDog Help About

IX Issue! Spacings Mode DATA:09-26-23 - ZH2

AM to H. Lat. 41 45 34.10 61 m COR Current Tables Crescent City CA L CA Crescent City tall
 W. Lng. 124 09 51.90 0.1 kW CH 281.104.1 MHz. L1 CC Redwoo 12-07-23

LPFM to 2nd

Call	Type	Ch	Location	Azi	Dist	FCC	Margin
KSYC-FM	LIC	280C1	Yreka	CA	96.9	129.24	99.5
K280BK	LIC-D	280D	Selma	OR	36.6	69.25	27.5

End of Screen List, Cardinal Radials = 36

Radiation Hazard

There is one other broadcast facility within 2 km, KFUG-LP, at 800 meters distance.

Search Parameters

N. Latitude

W. Longitude

Distance (km)

Date > yymmdd

Station Type

☒ AM Stations
☒ FM Stations
☒ TV Stations

Include secondaries:
☒ FM Translators
☒ TV Translators

Call	Service	City	State	Chan.	Power	Coordinates	Dist	Bear
AM								
KPOD-N	N	CRESCENT CITY	CA	1240	0001.000kW	414535N 1241128W	002.2	270.7
KPOD	D	CRESCENT CITY	CA	1240	0001.000kW	414535N 1241128W	002.2	270.7
FM								
KFUG-L	L	Crescent City	CA	266L1	0000.100kW	414516.50N 1241019.80W	000.8	228.2
KHSR	M	Crescent City	CA	220A	0004.500kW	414534.40N 1241132.30W	002.3	269.9
KCREFM	M	Crescent City	CA	232C3	0025.000kW	414534.40N 1241132.30W	002.3	269.9
KPODFM	M	Crescent City	CA	250A	0006.000kW	414534.40N 1241132.30W	002.3	269.9
KCREFM	M	Crescent City	CA	232C3	0025.000kW	414534.40N 1241132.30W	002.3	269.9
K294CX	X	Crescent City	CA	294D	0000.250kW	414534.40N 1241132.20W	002.3	269.9
TV	None Found							

Radiation Hazard Worksheet

CA Crescent City 281L1

From FCC 301/340 Worksheet

COR above ground:
55.1 m

ERP:
V 0.100 kW
H 0.100 kW

Results
0.2% of Controlled Limit
1.1% of Uncontrolled Limit

Protected zones report

Provided for convenience of staff...

Protected zones report for CC Redwoo on channel 281L1 12-07-2023
Lat. 41 45 34.1 Lng. 124 09 51.9, ERP= 0.1 kw, HAAT= -48.7 m

Closest AM Facility is NEW, CRESCENT CITY, CA, , DAN at 92.7° at a distance of 0.1 km
Facility is okay with respect to FCC monitoring stations.

Closest FCC Monitoring Station is 493.3 km= Livermore, CA
Facility is okay toward West Virginia Quiet Zone. Distance to center = 3828.9 km
Facility is okay toward Table Mountain. Distance to Center = 1603.7 km, Azimuth = 90.2
Degrees True