

KRRF CP MINOR MODIFICATION

This technical report has been developed in support of an application for a minor modification to the KRRF construction permit at Oak View, CA – BPH-20110218ABV.

- E1 KRRF spacing study
- E2 70 dBu coverage of Oak View, CA
- E3 HAAT and contour tabulation
- E4 ASR #1014800

KRRF allocation analysis:

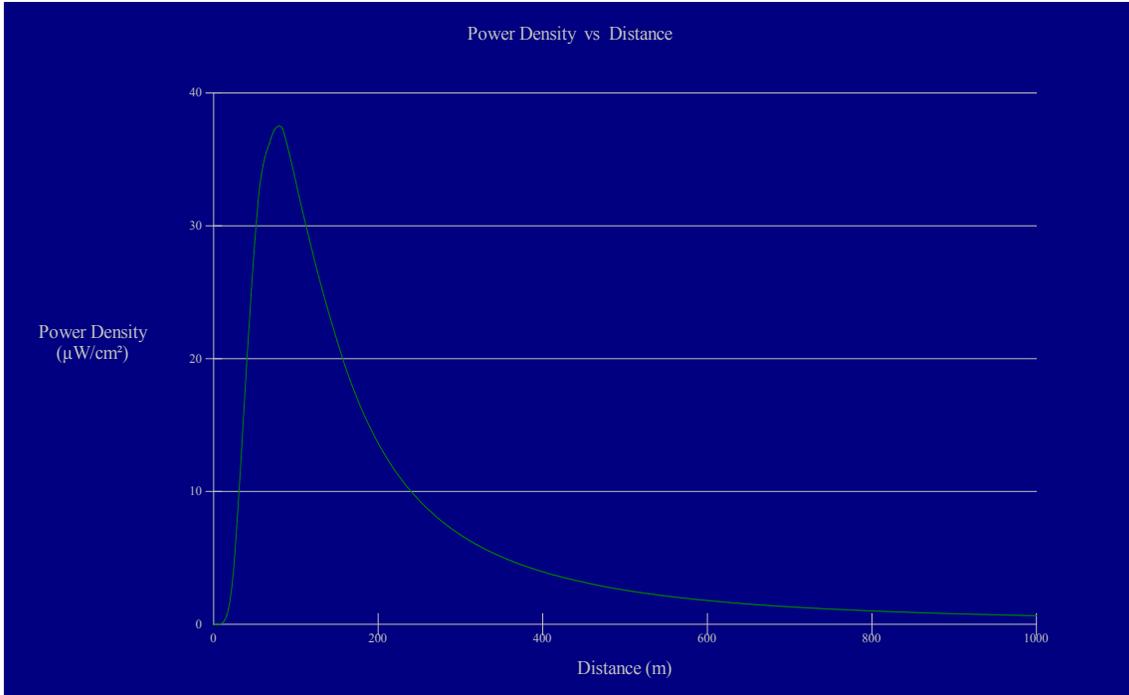
Exhibit E1 demonstrates that KRRF is fully spaced on channel 292A at its construction permit site. Seventy (70) dBu coverage is provided to the entire community of Oak View, CA as evidenced in exhibit E2. The antenna height above ground is reduced to 41 meters resulting in an HAAT of 252 meters (see E3) with an ERP of 0.96 kW producing a maximum class A 60 dBu of 28.42 km. The V-Soft NED 30 meter terrain database was utilized to determine HAAT.

Site and antenna and RF calculation:

The KRRF facility will utilize an ERI two bay one-half wave spaced LPX-2E-HW antenna at:

N 34-17-47 W 119-16-21 (NAD 27 - ASR#1014800).

The RF contribution of the proposed facility was calculated using the Commission's FMMODEL program to be $37.5 \mu\text{W}/\text{cm}^2$ at 80 meters which is only 18.75% of the maximum permissible for general public exposure.



The only other broadcast facility on this tower or nearby is a CP for FM translator K210CH at 10 Watts and seven (7) meters AGL. The K210CH RF contribution has been determined to be 18.7 μ Watts/cm² or 9.35% of the maximum general public exposure limit using a worst case vertical factor of 1.0 and the formula:

$$(RF \text{ in } \mu\text{Watts/cm}^2) = \frac{33.4 \times F^2 - \text{Vert Factor} \times (H \text{ ERP} + V \text{ ERP in Watts})}{R^2 \text{ (distance to radiation center in meters-2 m)}}$$

The combined RF contribution for the two facilities is 28.1% which complies with Commission requirements.

Conclusion:

It is concluded that the KRRF CP minor modification is in full compliance with the Commission rules and policies.

Charles M. Anderson 11-11-11
 1519 Euclid Avenue
 Bowling Green, KY 42103
 270-782-0246

E1 KRRF CHANNEL STUDY

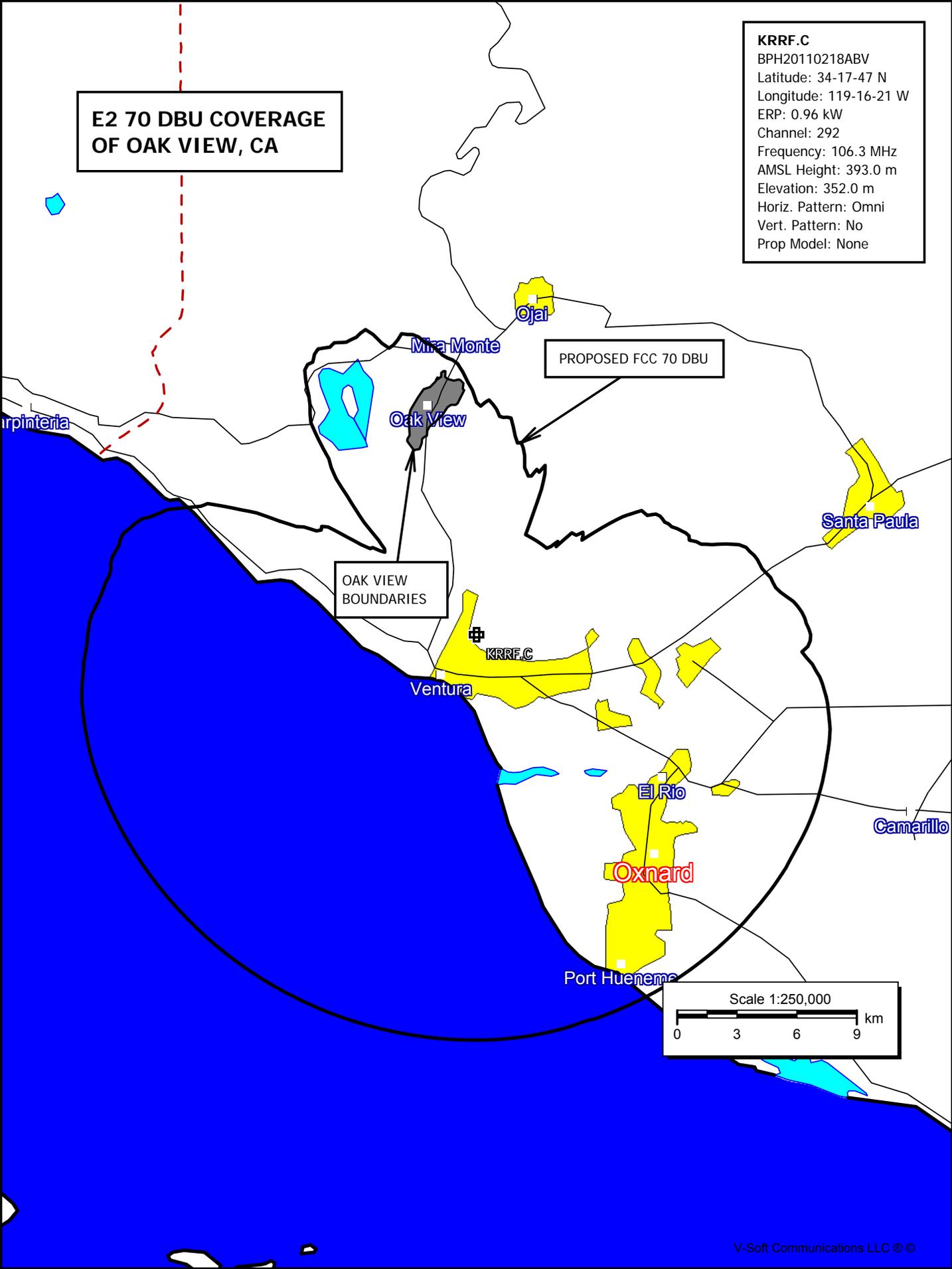
| | | |
|-------------------------------------|------------------------------|-----------------|
| REFERENCE | | DISPLAY DATES |
| 34 17 47.0 N. | CLASS = A Int = AA | DATA 11-11-11 |
| 119 16 21.0 W. | Current Spacings to 3rd Adj. | SEARCH 11-11-11 |
| ----- Channel 292 - 106.3 MHz ----- | | |

| Call | Channel | Location | Azi | Dist | FCC | Margin |
|---------|-------------|-------------|----------|-------|-------|--------|
| KRRF | CP 292A | Oak View | CA 0.0 | 0.0 | 114.5 | -114.5 |
| KRRF | LIC 292A | Goleta | CA 297.0 | 41.7 | 114.5 | -72.8 |
| KGMX | CP -N 292A | Lancaster | CA 64.3 | 116.5 | 114.5 | 2.0 |
| KGMX | LIC 292A | Lancaster | CA 64.3 | 116.5 | 114.5 | 2.0 |
| KEAL | LIC 293A | Taft | CA 349.1 | 90.2 | 71.5 | 18.7 |
| KROQ-FM | LIC 294B | Pasadena | CA 96.5 | 94.1 | 68.5 | 25.6 |
| KALI-FM | LIC-N 292A | Santa Ana | CA 114.3 | 144.0 | 114.5 | 29.5 |
| KRAB | LIC-Z 291B1 | Greenacres | CA 22.6 | 127.9 | 95.5 | 32.5 |
| KRAZ | LIC-Z 290A | Santa Ynez | CA 292.3 | 68.0 | 30.5 | 37.5 |
| KPWR | LIC-D 290B | Los Angeles | CA 93.6 | 111.3 | 68.5 | 42.8 |

Reference station has protected zone issue: Mexico

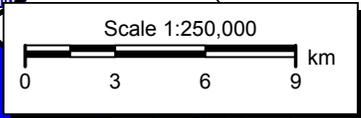
**E2 70 DBU COVERAGE
OF OAK VIEW, CA**

KRRF.C
BPH20110218ABV
Latitude: 34-17-47 N
Longitude: 119-16-21 W
ERP: 0.96 kW
Channel: 292
Frequency: 106.3 MHz
AMSL Height: 393.0 m
Elevation: 352.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None



OAK VIEW
BOUNDARIES

PROPOSED FCC 70 DBU



E3 CONTOURS AND HAAT

N. Lat. = 341747.0 W. Lng. = 1191621.0
HAAT and Distance to Contour,
V-Soft 3-16 km, 131 pts Method - NED 30 Meter

| Azi. | AV EL | HAAT | dBk | 70-F5 | 60-F5 |
|------|-------|-------|-------|-------|-------|
| 000 | 261.0 | 132.0 | -0.46 | 11.46 | 20.77 |
| 045 | 344.6 | 48.4 | -0.46 | 6.93 | 12.44 |
| 090 | 126.4 | 266.6 | -0.46 | 16.43 | 28.76 |
| 135 | 29.0 | 364.0 | -0.46 | 19.27 | 33.71 |
| 180 | 0.3 | 392.7 | -0.46 | 19.98 | 34.89 |
| 225 | 0.2 | 392.8 | -0.46 | 19.98 | 34.89 |
| 270 | 33.5 | 359.5 | -0.46 | 19.16 | 33.50 |
| 315 | 331.8 | 61.2 | -0.46 | 7.84 | 13.92 |

Ave E1= 140.84 M HAAT= 252.16 M AMSL= 393 Mge 1

E4 Registration 1014800

 [Map Registration](#)

Registration Detail

| | | | |
|----------------|------------------|-------------|-------------|
| Reg Number | 1014800 | Status | Constructed |
| File Number | A0564153 | Constructed | 12/28/1960 |
| FAA Study | 2003-AWP-2548-OE | EMI | No |
| FAA Issue Date | 09/08/2003 | NEPA | No |

Antenna Structure

Structure Type TOWER - Free standing or Guyed Structure used for Communications Purposes

Location (in NAD83 Coordinates)

| | | |
|--------------------|----------------------------|--|
| Lat/Long | 34-17-47.0 N 119-16-24.0 W | (HALL CANYON #89321--CAN) 3 miles North of East Main |
| City, State | VENTURA , CA | |
| Center of AM Array | | |

Heights (meters)

| | |
|--|---|
| Elevation of Site Above Mean Sea Level | Overall Height Above Ground (AGL) |
| 352.3 | 63.1 |
| Overall Height Above Mean Sea Level | Overall Height Above Ground w/o Appurtenances |
| 415.4 | 61.0 |

Painting and Lighting Specifications

FAA Chapters 4, 8, 12
Paint and Light in Accordance with FAA Circular Number 70/7460-1K

Owner & Contact Information

| | | | |
|--------------|------------|-------------|-----------|
| FRN | 0005885231 | Licensee ID | L00008376 |
| Assignor FRN | 0006156145 | Assignor ID | L00008376 |

Owner

| | |
|--|--|
| American Towers, Inc. Attention To: FAA/FCC Compliance Dept. 1101 Perimeter Drive Schaumburg , IL 60173 | P: (847)240-1508 E: ATCfaa-fccmidwest@americantower.com |
|--|--|

Contact

| | |
|---|--|
| Compliance Dept. , FAA/FCC 1101 Perimeter Drive Schaumburg , IL 60173 | P: (847)240-1508 E: ATCfaa-fccmidwest@americantower.com |
|---|--|

Last Action Status

| | | | |
|---------|--------------|----------|------------|
| Status | Constructed | Received | 10/03/2007 |
| Purpose | Change Owner | Entered | 10/03/2007 |
| Mode | Interactive | | |

Related Applications

| | |
|------------|--|
| 10/03/2007 | A0564153 - Change Owner (OC) |
| 01/10/2006 | A0485777 - Admin Update (AU) |
| 09/16/2003 | A0343614 - Modification (MD) 2.fcc.gov/UlsApp/AsrSearch/asrRegistration.jsp?regKey=... |