

Technical Report K263BN Minor Modification

This technical report is submitted for an amendment to the minor modification to K263BN, FCC file no. BPFT-20161104ABM. A modification of the antenna with the corresponding change to channel 260 is submitted. The translator will remain to serve as a fill-in facility to rebroadcast KZST(FM) 261A at Santa Rosa, CA, FCC facility I.D. 55430.

K263BN Modification Analysis:

An overlap study (exhibit E-1) shows the K263BN modification to channel 260 is within the primary KZST(FM) 261A 60 dBu protected contour. The 54 dBu F(50-10) contour (exhibit E-2) does not overlap the Santa Rosa, CA community of license, as allowed by CFR 74.1204(d). The 60 dBu overlaps the current 60 dBu contour (exhibit E-3) and is contained within the primary KZST(FM) 60 dBu contour (exhibit E-4).

Antenna System:

The K263BN modification is located on the existing 32 meter tower at coordinates:

38 29 20N 123 01 53W NAD 27.

A TOWAIR determination (exhibit E-5) shows the tower does not require registration. A Scala CL-FM single bay, horizontally-polarized, directional antenna (exhibit E-6) will be mounted at a COR AGL of 23 meters, 363 meters AMSL and operate at 0.010 kW ERP.

RF Exposure Calculation:

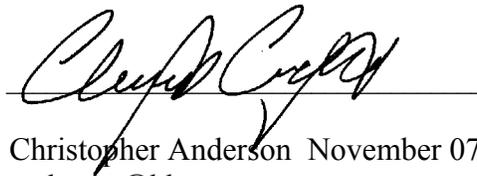
The RF contribution was calculated using the formula from the OET Bulletin 65:

$$S \text{ (RF in microwatts/cm}^2\text{)} = \frac{33.4 \times F^2 \times (H \text{ ERP} + V \text{ ERP in watts})}{R^2 \text{ (height of radiation center in meters -2m)}}$$

Using a worst case vertical (F) factor of 1.0, the RF is calculated to be $0.757 \mu\text{W}/\text{cm}^2$ to the ground, which is well below 5% of the $200 \mu\text{W}/\text{cm}^2$ maximum permissible for general public exposure, allowing exclusion from consideration.

Conclusion:

It is concluded that the K263BN modification complies with all Commission rules and policies.



Christopher Anderson November 07, 2016
andersce@bham.rr.com
© 2016 Anderson Associates

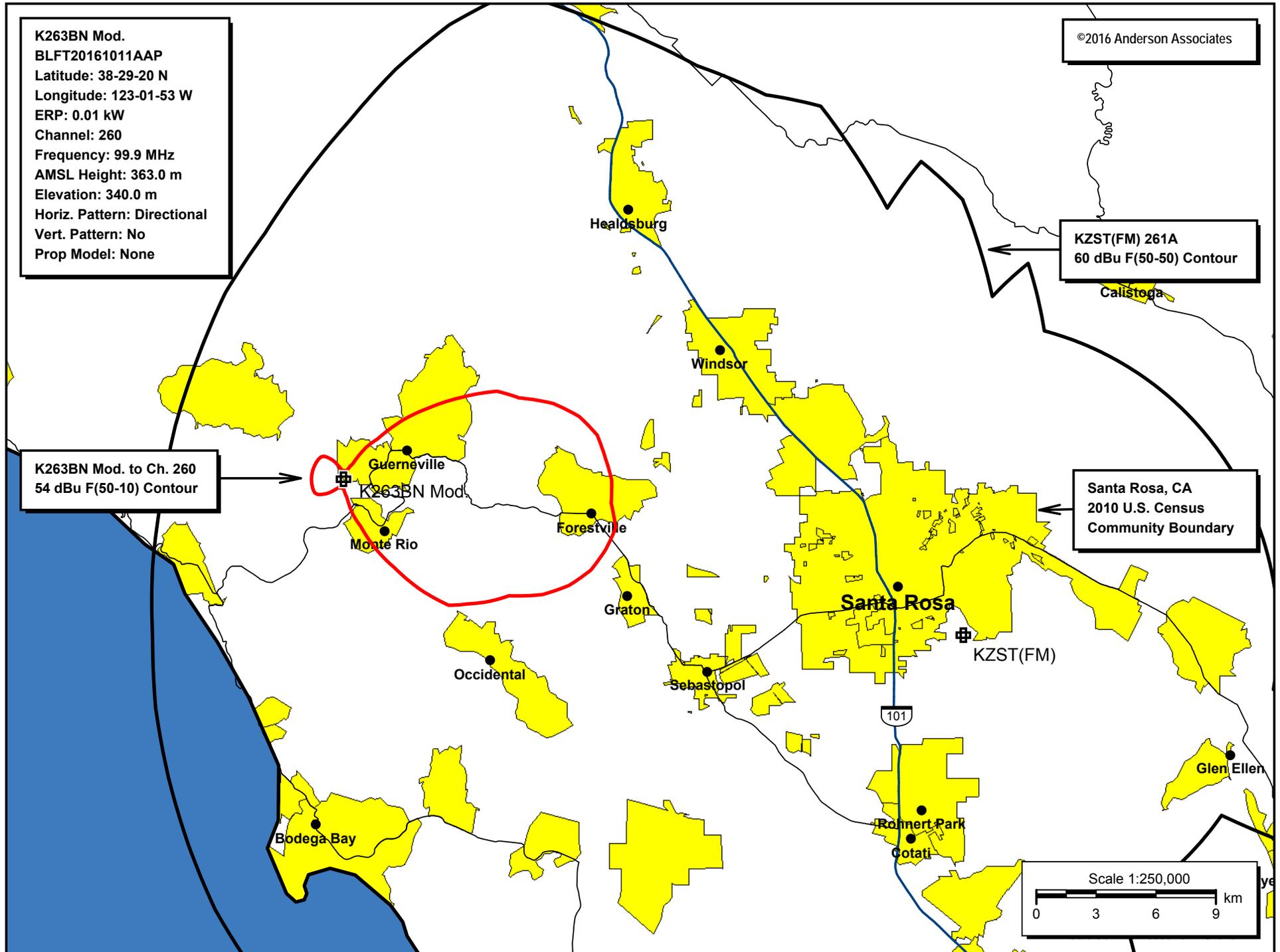
E-1 K263BN Mod. to Ch. 260 Overlap Study

| CH | CALL | TYPE | ANT | AZI | DIST | LAT | PWR(kW) | INT(km) | PRO(km) | *IN* | *OUT* |
|---------------|-------------------|---------|-----|-------|------------------|-------------|---------|---------|----------------------------|-----------------|-----------|
| CITY | | STATE | | <-- | FILE # | LNG | HAAT(M) | COR(M) | LICENSEE | (Overlap in km) | |
| 261A | KZST | LIC _C_ | | 104.1 | 31.92 | 38 25 07.0 | 6.000 | 60.4 | 40.8 | -38.4* | -22.5*(1) |
| Santa Rosa | | CA | | 284.3 | BLH19991015ABU | 122 40 33.0 | 75 | 255 | Redwood Empire Stereocaste | | |
| 259B | KMVO-FM | LIC _CN | | 149.4 | 103.28 | 37 41 15.0 | 40.000 | 100.8 | 83.3 | -4.7 | 8.3 |
| San Francisco | | CA | | 329.8 | BLH19920427KB | 122 26 04.0 | 396 | 452 | Cbs Radio Kmvq-fm Inc. | | |
| 260B | KRCX-FM | LIC _CN | | 52.4 | 131.76 | 39 12 20.0 | 1.750 | 127.3 | 66.9 | -3.6 | 34.4 |
| Marysville | | CA | | 233.2 | BMLH19961108KB | 121 49 10.0 | 665 | 715 | Entravision Holdings, LIc | | |
| 263D | K263BN | LIC DV_ | | 0.0 | 0.00 | 38 29 20.0 | 0.200 | 0.0 | 2.0 | -0.3* | -2.0* |
| Santa Rosa | | CA | | 0.0 | BLFT20161011AAP | 123 01 53.0 | | 363 | Redwood Empire Stereocaste | | |
| 263B1 | KTDE | LIC NCN | | 308.9 | 59.91 | 38 49 33.0 | 6.000 | 3.9 | 48.1 | 55.1 | 11.5 |
| Gualala | | CA | | 128.5 | BLH19930816KA | 123 34 12.0 | 204 | 380 | The Tide Community Broadca | | |
| 261D | KZST-FM2 | LIC DC_ | | 109.2 | 32.62 | 38 23 31.0 | 1.200 | 3.8 | 2.2 | 19.1 | 11.9 |
| Rohnert Park | | CA | | 289.4 | BLFTB20000215ABN | 122 40 40.0 | 171 | 321 | Redwood Empire Stereocaste | | |
| 260D | K260BV | LIC DH_ | | 59.9 | 40.12 | 38 40 09.0 | 0.003 | 1.2 | 0.1 | 30.5 | 12.6 |
| Calistoga | | CA | | 240.2 | BLFT20160509AAJ | 122 37 53.0 | 910 | 1314 | One Ministries, Inc. | | |
| 258B | KNTI | LIC _CN | | 356.9 | 71.44 | 39 07 50.0 | 2.400 | 3.0 | 56.7 | 65.9 | 13.4 |
| Lakeport | | CA | | 176.9 | BLH19850711KV | 123 04 32.0 | 585 | 1116 | Bi coastal Media Licenses, | | |
| 261D | KZST-FM1 | LIC DHN | | 114.6 | 41.95 | 38 19 52.0 | 0.046 | 0.9 | 0.5 | 31.5 | 26.9 |
| Petaluma | | CA | | 294.8 | BLFTB1 | 122 35 38.0 | | 573 | Redwood Empire Stereocaste | | |
| 257A | KVYN | LIC ZCN | | 96.3 | 61.82 | 38 25 34.0 | 6.000 | 2.3 | 23.6 | 49.7 | 28.5 |
| St. Helena | | CA | | 276.7 | BLH19960122KA | 122 19 33.0 | 79 | 348 | Wine Country Broadcasting | | |
| 262D | K260BV | CP DC_ | | 59.9 | 40.12 | 38 40 09.0 | 0.010 | 0.0 | 2.8 | 31.7 | 35.7 |
| Calistoga | | CA | | 240.2 | BPFT20160601AHA | 122 37 53.0 | | 1314 | One Ministries, Inc. | | |

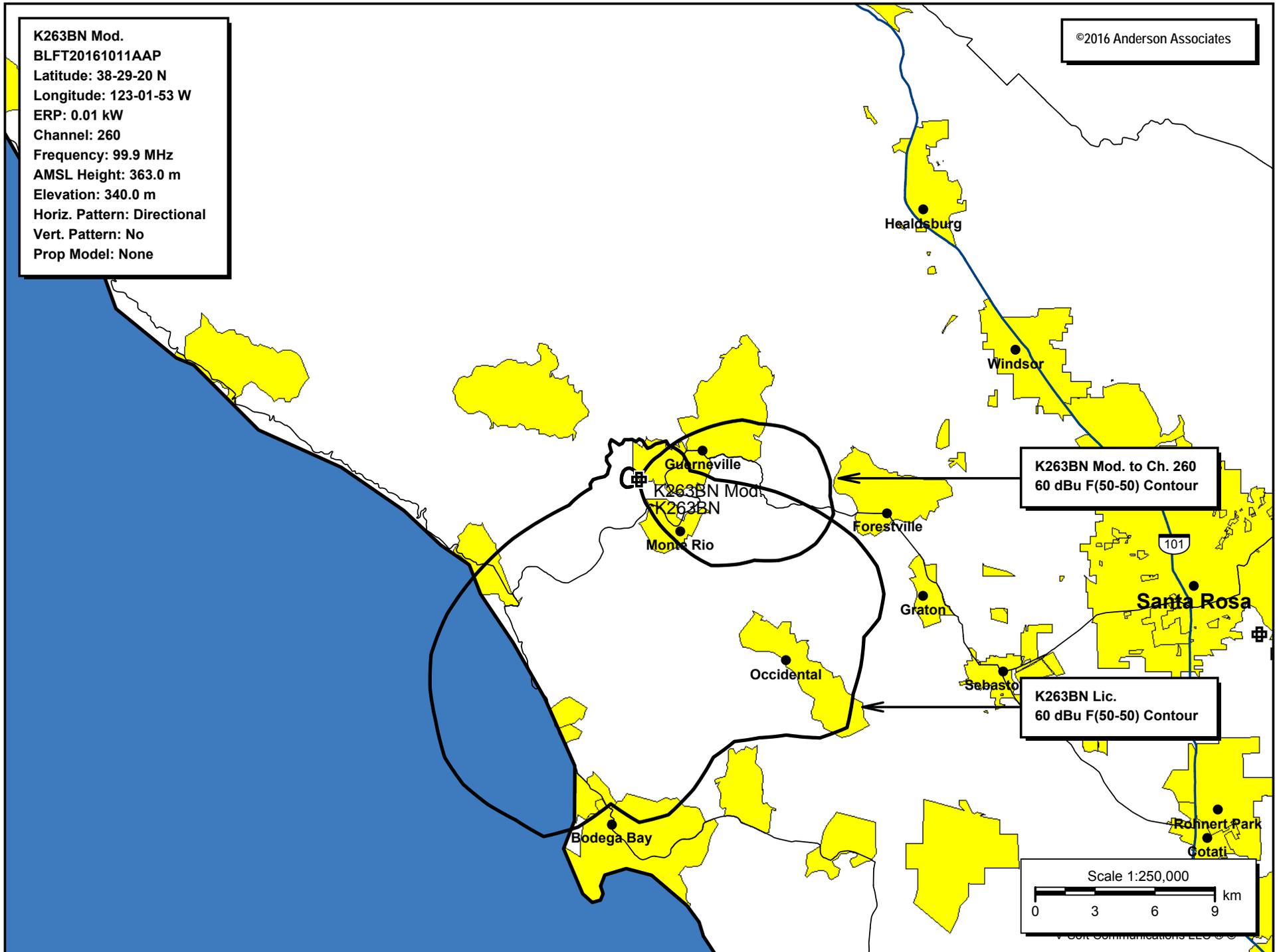
Terrain database is FCC NGDC 30 Sec , R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM
 In & Out distances between contours are shown at closest points. Reference zone= East Zone 2A, Co to 3rd adjacent.
 All separation margins (if shown) include rounding. Call signs with strikeout need not be protected.
 Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)
 "*"affixed to 'IN' or 'OUT' values = site inside restricted contour.

- 1) The K263BN proposed 54 dBu (50:10) is within the primary KZST(FM)'s 261A protected contour. However, exhibit E-2 shows that the 54 dBu F(50-10) interfering contour does not reach the Santa Rosa, CA community of license, as allowed by CFR 74.1204(d). Therefore, there is no interference within the community of license or to any other facility other than the primary station as permitted.

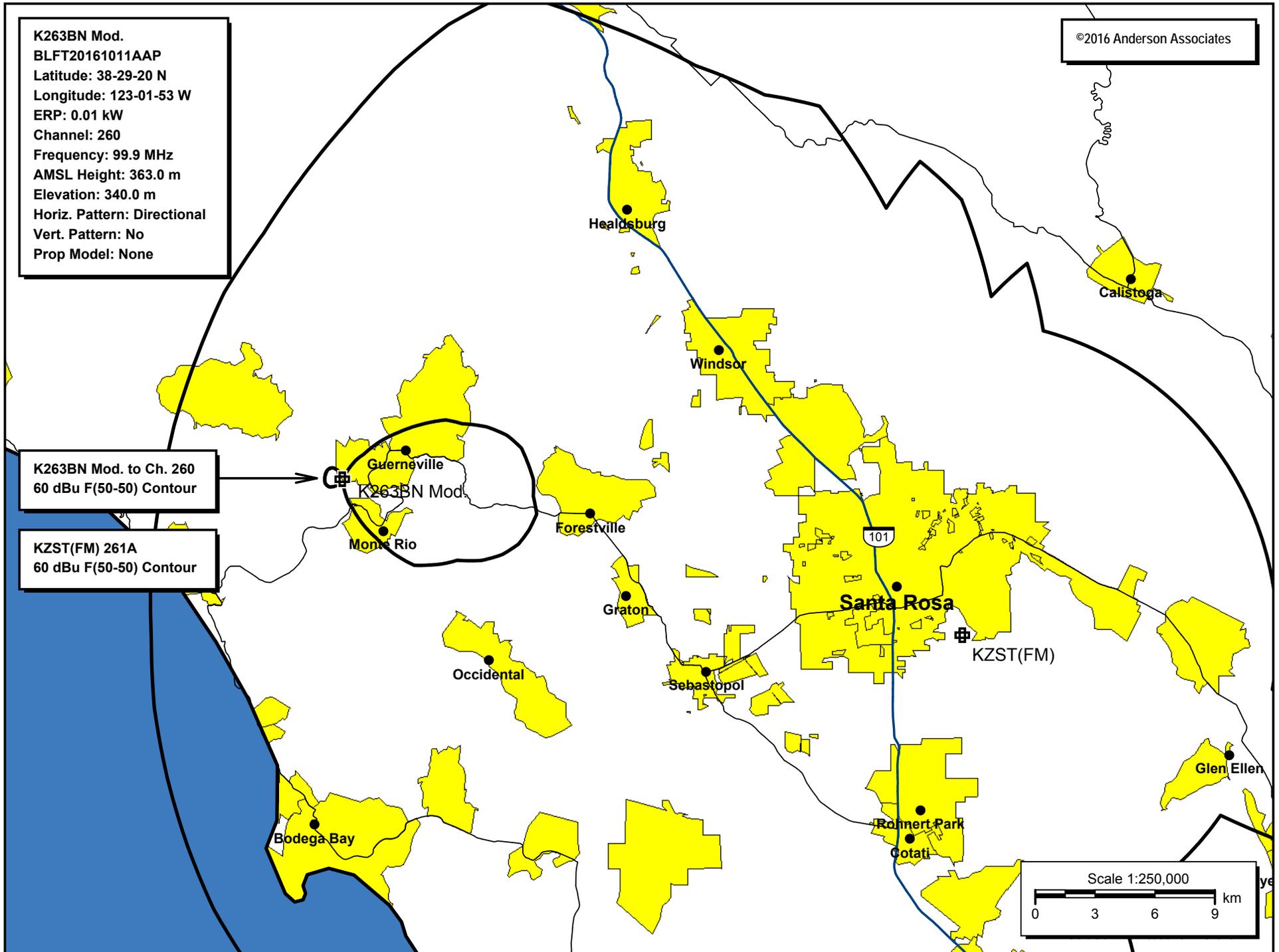
E-2 K263BN Mod. Interference Contour Plot



E-3 K263BN Mod. 60 dBu Contour Overlap to K263BN Lic.



E-4 K263BN Mod. 60 dBu Contour Plot



TOWAIR Determination Results

*** NOTICE ***

TOWAIR's findings are not definitive or binding, and we cannot guarantee that the data in TOWAIR are fully current and accurate. In some instances, TOWAIR may yield results that differ from application of the criteria set out in 47 C.F.R. Section 17.7 and 14 C.F.R. Section 77.13. A positive finding by TOWAIR recommending notification should be given considerable weight. On the other hand, a finding by TOWAIR recommending either for or against notification is not conclusive. It is the responsibility of each ASR participant to exercise due diligence to determine if it must coordinate its structure with the FAA. TOWAIR is only one tool designed to assist ASR participants in exercising this due diligence, and further investigation may be necessary to determine if FAA coordination is appropriate.

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 | 38-29-19.7 north |
| Longitude | 123-01-57.0 west |

Measurements (Meters)

| | |
|--------------------------------|-----|
| Overall Structure Height (AGL) | 32 |
| Support Structure Height (AGL) | 0 |
| Site Elevation (AMSL) | 340 |

Structure Type

GTOWER - Guyed Structure Used for Communication Purposes

E-6 K263BN Mod. Antenna Pattern

| Azimuth (deg) | Relative Field |
|---------------|----------------|
| 0.0 | 0.01 |
| 10.0 | 0.01 |
| 20.0 | 0.01 |
| 30.0 | 0.02 |
| 40.0 | 0.085 |
| 50.0 | 0.25 |
| 60.0 | 0.47 |
| 70.0 | 0.645 |
| 80.0 | 0.82 |
| 90.0 | 0.95 |
| 100.0 | 1.0 |
| 110.0 | 0.95 |
| 120.0 | 0.82 |
| 130.0 | 0.645 |
| 140.0 | 0.47 |
| 150.0 | 0.25 |
| 160.0 | 0.085 |
| 170.0 | 0.02 |
| 180.0 | 0.01 |
| 190.0 | 0.01 |
| 200.0 | 0.01 |
| 210.0 | 0.01 |
| 220.0 | 0.015 |
| 230.0 | 0.025 |
| 240.0 | 0.034 |
| 250.0 | 0.038 |
| 260.0 | 0.04 |
| 270.0 | 0.04 |
| 280.0 | 0.04 |
| 290.0 | 0.04 |
| 300.0 | 0.04 |
| 310.0 | 0.038 |
| 320.0 | 0.034 |
| 330.0 | 0.025 |
| 340.0 | 0.015 |
| 350.0 | 0.01 |

