

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:

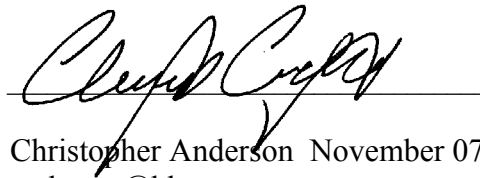
The RF contribution was calculated using the formula from the OET Bulletin 65:

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

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.

A handwritten signature in black ink, appearing to read 'Christopher Anderson', is written over a horizontal line.

Christopher Anderson November 07, 2016
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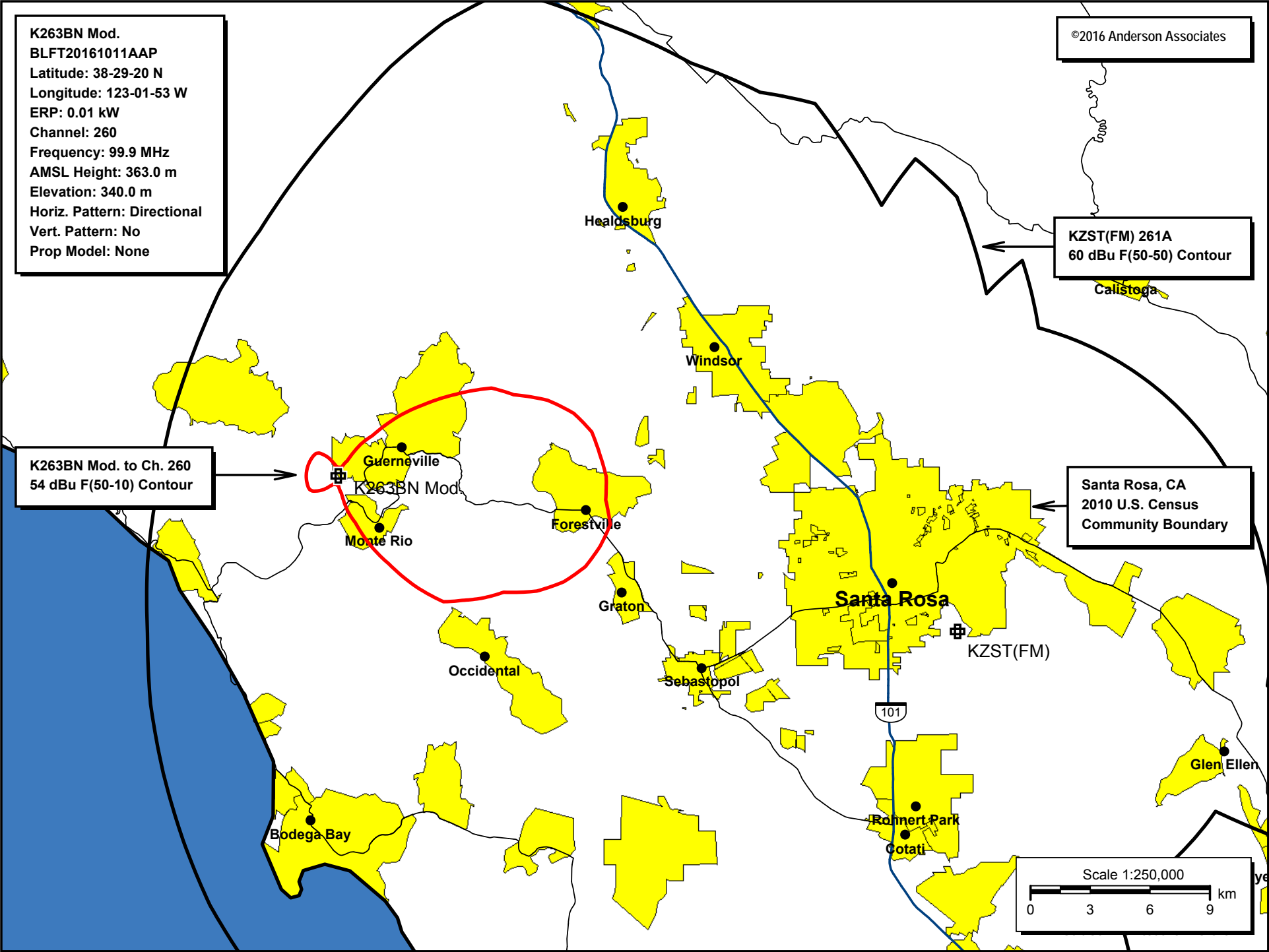
E-1 K263BN Mod. to Ch. 260 Overlap Study

REFERENCE		CH#	260D - 99.9 MHz, Pwr= 0.01 kW DA, HAAT= 194.0 M, COR= 363 M				DISPLAY DATES				
38 29 20.0 N.			Average Protected F(50-50)= 8.09 km				DATA 11-07-16				
123 01 53.0 W.			Standard Directional				SEARCH 11-07-16				
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	KMVQ-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 Radi o 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	Entravisi on Hol dings, LI c		
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	Petalu	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 Mini stries, 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 Medi a Li censes,		
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 Mini stries, Inc.		

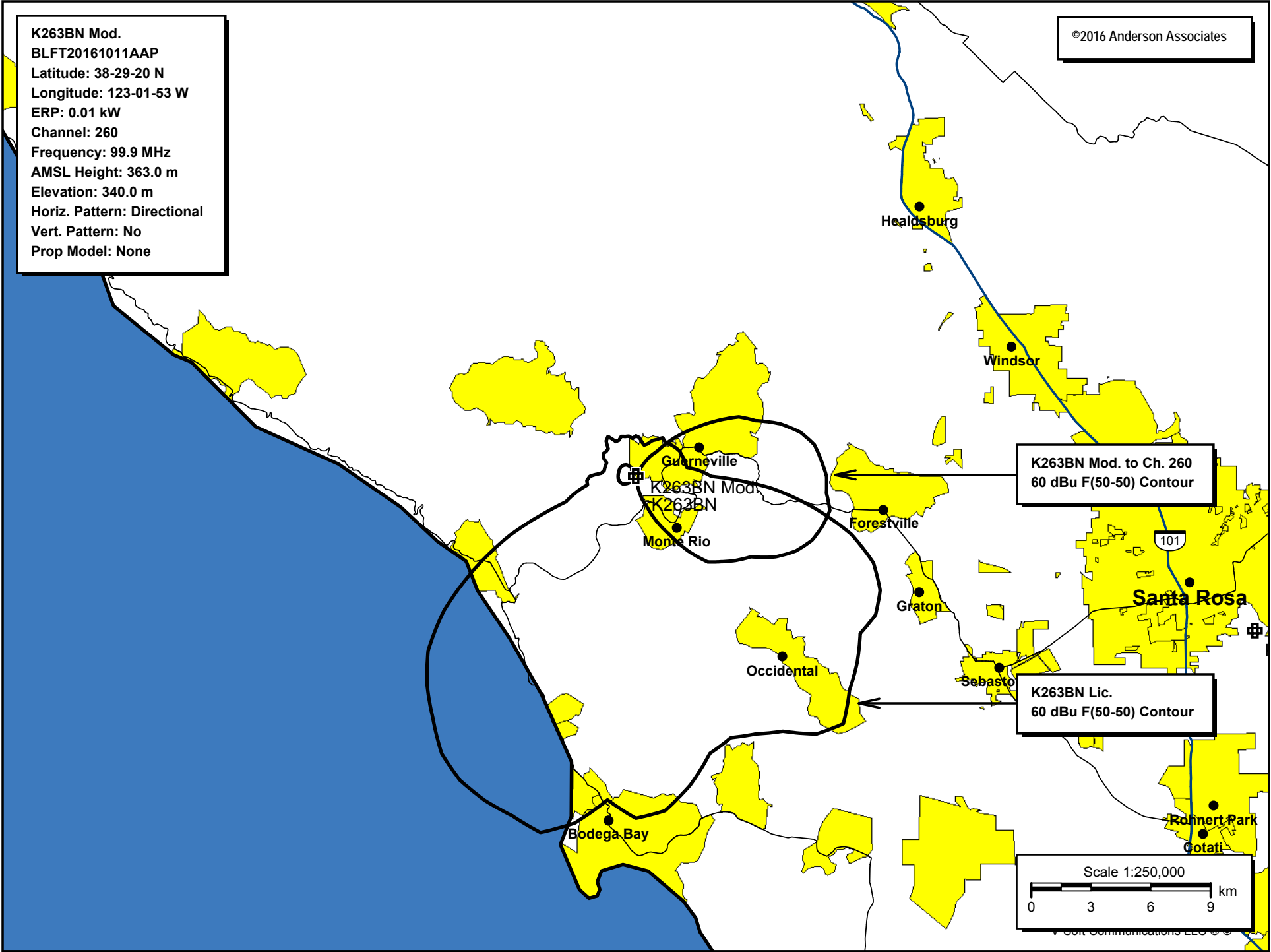
Terrain database is FCC NGDC 30 Sec , R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM
In & Out distances between contours are shown at closest points. Reference zone= East Zone 2A, Co to 3rd adjacent.
All separation margins (if shown) include rounding. Call signs with strikeout 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.

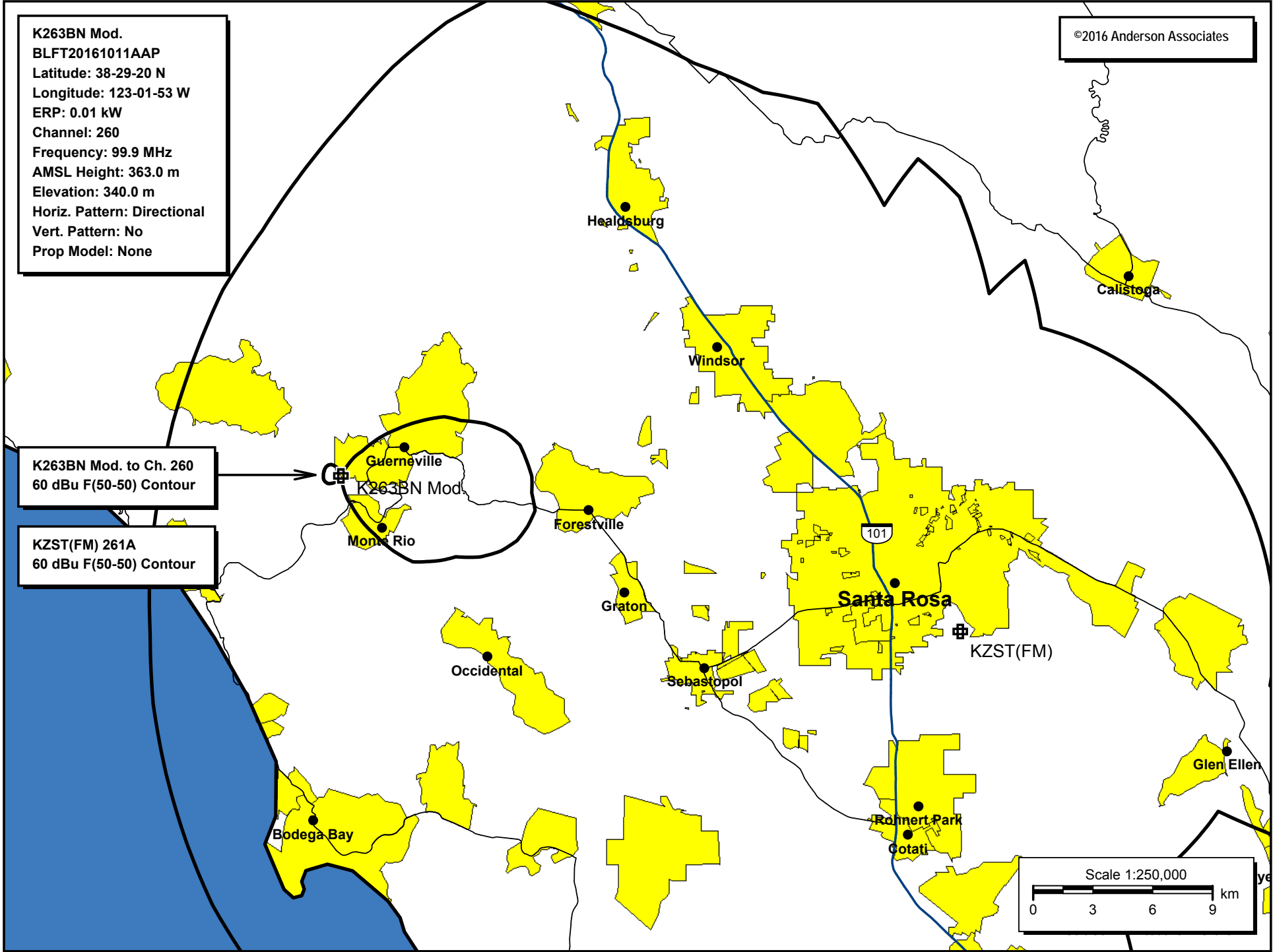
E-2 K263BN Mod. Interference Contour Plot



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

