

**Goldman Engineering Management  
Auburn, CA**

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KWFN-FM5 (CP)

CP MODIFICATION APPLICATION

This technical statement and attached exhibits have been prepared on behalf of Entercom License, LLC licensee of station KWFN (FM), Channel 247B, San Diego, CA, Facility identifier 30832 to change the proposed antenna model and pattern. There are no other changes proposed on this application.

FACILITIES REQUESTED

The requested facility will operate within the 54dBu contour of KWFN (FM). The proposed booster will remain compliant with 74.1232(f). A map showing the coverage of this booster in relationship to the KWFN 54dBu contour is shown in Exhibit A. Regarding 74.1204 compliance, there are no first adjacent stations affected nor are there any IF spacing restrictions from the proposed location. As shown in Exhibit A, the 48dBu f50,10 interfering contour for the booster does not extend as far as the 48dBu f50,10 interfering contour from the main transmitter. The antenna being used is a PSI-FMY-2C Custom dual element, single level log-periodic antenna rotated 30 degrees from vertical to achieve slant H+V polarization. The Azimuth Pattern is attached as Exhibit B.

Booster Location:	Encinitas, CA (Leucadia)
ASR	NONE (Towair Exhibit C)
Geographic Coordinates (NAD27):	33° - 03 - 49" N, 117° -17' -30" W
Geographic Coordinates (NAD83):	33° - 03 - 49" N, 117° -17' -33" W
Channel:	247 (97.3 MHz)
Effective Radiated Power:	1kW V, 333w H
Antenna Type, Pattern:	Shively 6025-1-2 log-periodic, 30 deg slant
Antenna Orientation:	340° True
Site Height AMSL	49m
Tower OAGL	12m
Antenna Height :	
Above ground:	10m
Above mean sea level:	59m

## ENVIRONMENTAL CONSIDERATIONS

The Booster will be attached 10 meters AGL on a 34m existing tower There will be no modifications to the tower.

The proposed log-periodic antenna will operate with 1000 watts peak ERP Vertical and 330 watts horizontal.

At ground level the estimated RF level will be approximately  $145.2 \mu\text{W}/\text{cm}^2$  or approximately 72.6% of allowable public exposure levels at 7 meters from the tower base. There are no other non-excluded facilities on the proposed tower. Because of the relatively high potential for excessive public exposure, it is expected that field measurements will need to be taken to assure compliance for public exposure at the tower base. Regardless, the tower base is secured with fence preventing public access. If necessary, locations in excess of public exposure levels will be marked and further restricted from access, and there will be procedures in place to reduce power if access is necessary by service personnel within the locked and fenced area.

The applicant agrees to reduce power or cease operations when it becomes necessary if workers are near the antenna in order to ensure that they will not be exposed to levels of radio frequency electromagnetic radiation that exceed FCC guidelines.

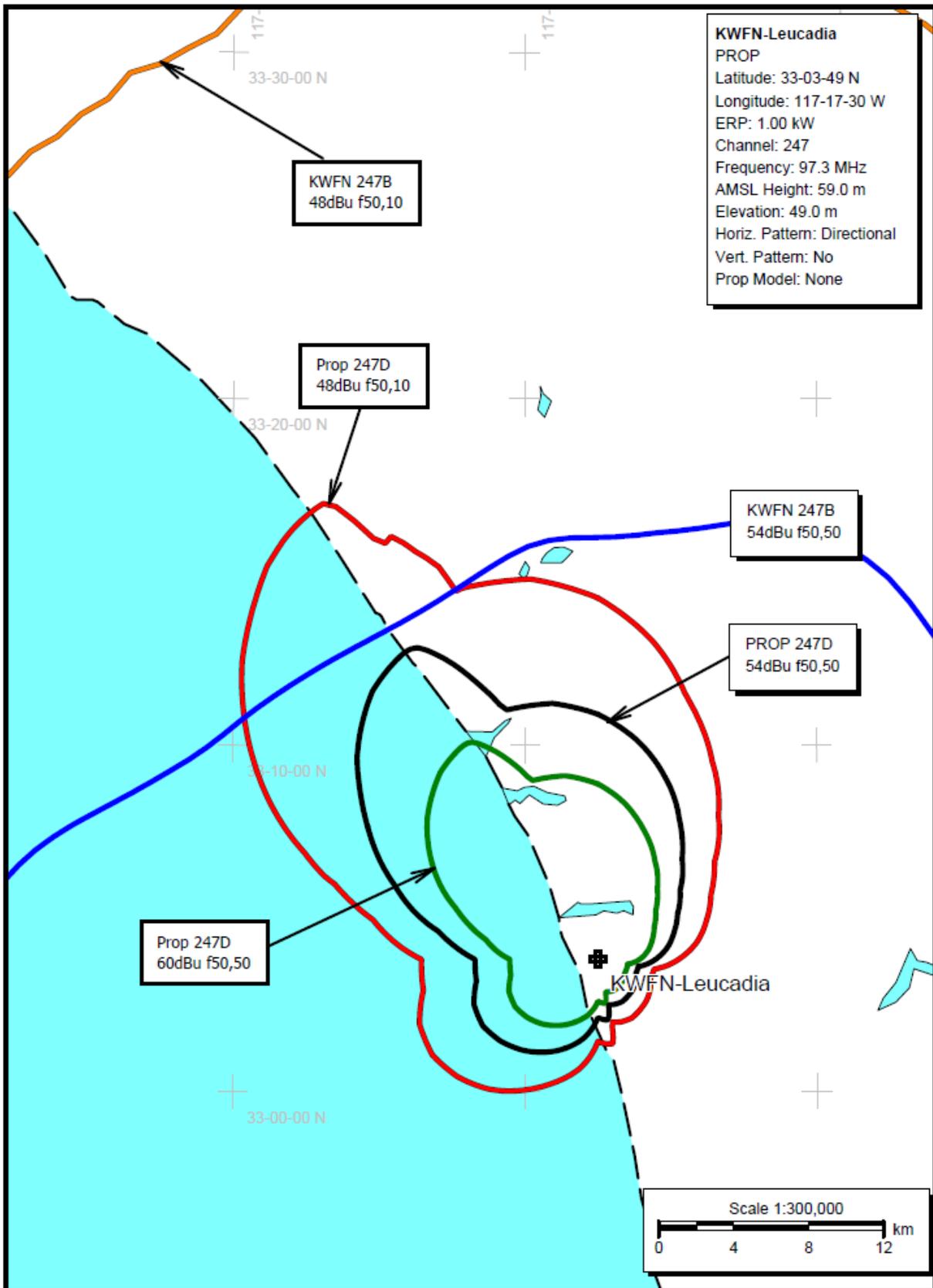
## CERTIFICATION

The undersigned hereby certifies that the foregoing statement and associated attachments were prepared by him or under his direct supervision, and that they are true and correct to the best of his knowledge and belief.



Bertram S. Goldman  
Goldman Engineering Management

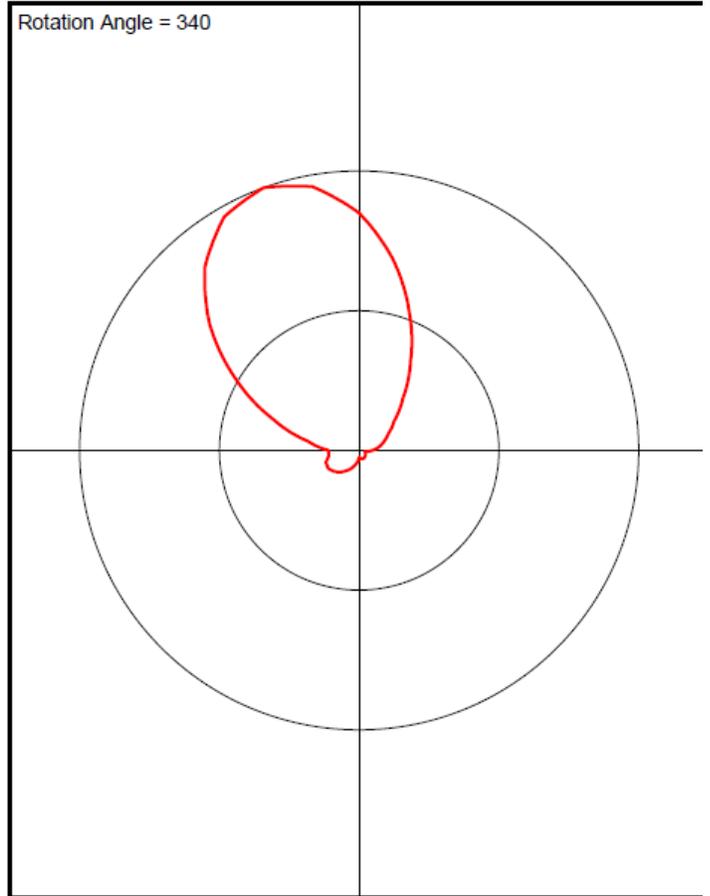
### KWFN Encinitas (Leucadia) Booster Compliance



# EXHIBIT B- Antenna Pattern

KWFN-FM5 PSI Antenna Pattern  
Pre-Rotation Antenna Pattern....

Azimuth (deg)	Relative Field
0.0	1.0
5.0	0.979
10.0	0.958
15.0	0.9035
20.0	0.849
25.0	0.772
30.0	0.695
35.0	0.61
40.0	0.525
45.0	0.446
50.0	0.367
55.0	0.305
60.0	0.243
65.0	0.203
70.0	0.163
75.0	0.142
80.0	0.121
85.0	0.108
90.0	0.095
95.0	0.0835
100.0	0.072
105.0	0.0595
110.0	0.047
115.0	0.035
120.0	0.023
125.0	0.0225
130.0	0.022
135.0	0.024
140.0	0.026
145.0	0.0275
150.0	0.029
155.0	0.03
160.0	0.031
165.0	0.032
170.0	0.033
175.0	0.0325
180.0	0.032
185.0	0.0305
190.0	0.029
195.0	0.0265
200.0	0.024
205.0	0.0345
210.0	0.045
215.0	0.054
220.0	0.063
225.0	0.0725
230.0	0.082
235.0	0.0915
240.0	0.101
245.0	0.109
250.0	0.117
255.0	0.1225
260.0	0.128
265.0	0.127
270.0	0.126
275.0	0.118
280.0	0.11
285.0	0.1095
290.0	0.109
295.0	0.147
300.0	0.185
305.0	0.2565
310.0	0.328
315.0	0.4185



320.0	0.509
325.0	0.603
330.0	0.697
335.0	0.7775
340.0	0.858
345.0	0.9115
350.0	0.965
355.0	0.9825

# Exhibit C- TOWAIR RESULTS

## TOWAIR Determination Results

A routine check of the coordinates, heights, and structure type you provided indicates that this structure does not require registration.

### \*\*\* 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

##### PASS SLOPE(100:1): NO FAA REQ-RWY MORE THAN 10499 MTRS & 7034.78 MTRS (7.03479 KM) AWAY

Type	C/R	Latitude	Longitude	Name	Address	Lowest Elevation (m)	Runway Length (m)
AIRP	R	33-07-37.00N	117-17-17.00W	MC CLELLAN-PALOMAR	SAN DIEGO CARLSBAD, CA	96.3	1492.5999999999999

##### PASS SLOPE(100:1)NO FAA REQ - 5894.0 Meters (19337.0 Feet)away & below slope by 94.0 Meters (308.399 Feet)

Type	C/R	Latitude	Longitude	Name	Address	Lowest Elevation (m)	Runway Length (m)
AIRP	B	33-07-41.00N	117-16-21.00W	MC CLELLAN-PALOMAR	SAN DIEGO CARLSBAD, CA	96.3	1492.5999999999999

#### Your Specifications

##### NAD83 Coordinates

Latitude 33-03-49.0 north  
Longitude 117-17-33.0 west

##### Measurements (Meters)

Overall Structure Height (AGL) 12  
Support Structure Height (AGL) 0  
Site Elevation (AMSL) 49

##### Structure Type

MTOWER - Monopole