

**Goldman Engineering Management
Auburn, CA**

KOIT(FM)

APPLICATION FOR NEW ON-CHANNEL BOOSTER

This technical statement and attached exhibits have been prepared on behalf of Bonneville International Corporation. Licensee of station KOIT(FM), Channel 243B, San Francisco, CA, Facility identifier 6380 for an on-channel FM booster to cover the community of Alamo, CA which is terrain blocked to the primary KOIT(FM) signal.

FACILITIES REQUESTED

The requested facility will operate within the Non-Grandfathered 54dBu contour of KOIT(FM). A map showing the coverage of this booster in relationship to the KOIT(FM) signal is shown in Exhibit A. Although KOIT(FM) operates with a grandfathered power level of 24kW, for the purposes of this allocation, KOIT(FM) was evaluated with a Non-Grandfathered ERP of 4.1kW. The antenna being used is a Jampro dual element, single level log-periodic antenna rotated 45 degrees from vertical to achieve slant H+V polarization. The Azimuth Pattern is attached as Exhibit C.

TECHNICAL SPECIFICATIONS

Booster Location:	“Rocky Rebuild”- Alamo, CA
ASR	ASR Not Required (Existing ATC Asset #281733)
Geographic Coordinates (NAD27):	37°48’56.7”N, 122° 03’ 44.8” W
Channel:	243 (96.5 MHz)
Effective Radiated Power:	99 W (H+V)
Antenna Type, Pattern:	Jampro Java 1-1-(2)-Slant Log Periodic (Exhibit C)
Antenna Orientation:	80° True
Site Height AMSL	613m
Tower OAGL	60m
Antenna Height :	
Above ground:	51m
Above mean sea level:	664m

As shown in Exhibit A the 54dBu contour of the booster will fall inside the 54dBu contour of KOIT(FM) and is thus compliant with 74.1232(f). As shown in Exhibit B, the proposed booster will provide interference protection to all first adjacent channel stations because the first adjacent interfering contours are within the KOIT(FM) interfering contours. KOIT(FM) is not short-spaced to any other first adjacent stations. The proposed booster is collocated to IF related KLVS (297B, 54 channels removed). Because of this short-spacing, the KOIT(FM) booster is limited to 99 watts peak ERP.

ENVIRONMENTAL CONSIDERATIONS

The Booster will be attached at the 51m height on an existing 60m tower. Because there will be no modifications to this tower it is exempt from environmental processing under CFR Section 1.1306.

The proposed KOIT(FM) booster antenna was evaluated for RF energy at ground level. RF fields were calculated using the FCC “FM Model” calculator¹ using a EPA Type 2 antenna. The RF field was calculated at 0.76 μ W/cm² which is 0.38% of the maximum allowable 200 μ W/cm² allowable limit for public exposure. Because the calculated emission from the proposed booster antenna is expected to be less than 5% of the permitted 200 μ W/cm² at 2m above ground level, the facility is categorically exempt from further environmental assessment under 47CFR 1.1306 and 1.1307.

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

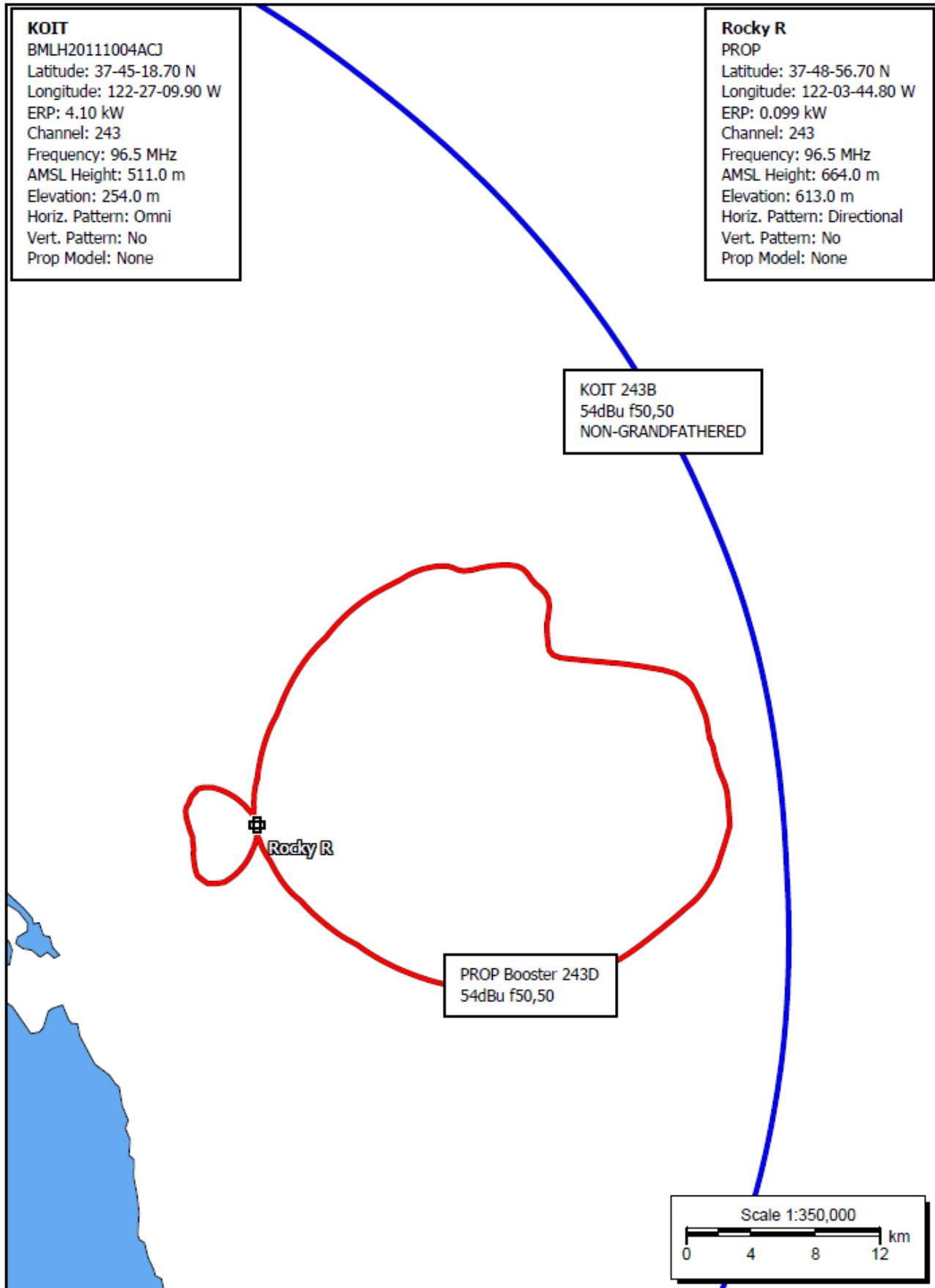
The undersigned hereby certifies that the foregoing statement and associated attachments were prepared by him or under his direct supervision, and that they are true and correct to the best of his knowledge and belief.



Bertram S. Goldman
Goldman Engineering Management

¹ <https://www.fcc.gov/general/fm-model>

Proposed KOIT Alamo, CA Booster (99w)



Proposed KOIT Alamo, CA Booster 1st Adjacent (99w)

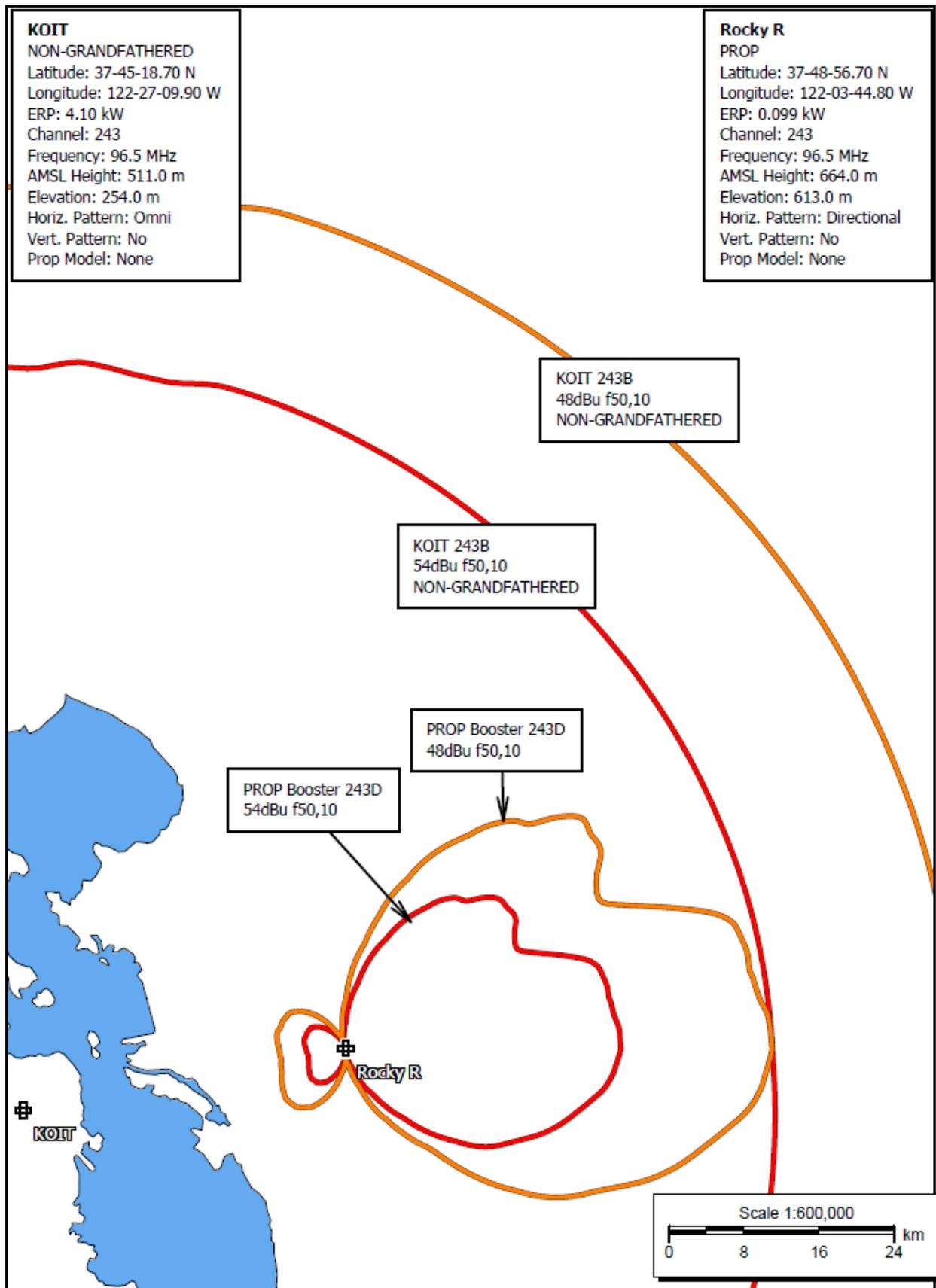
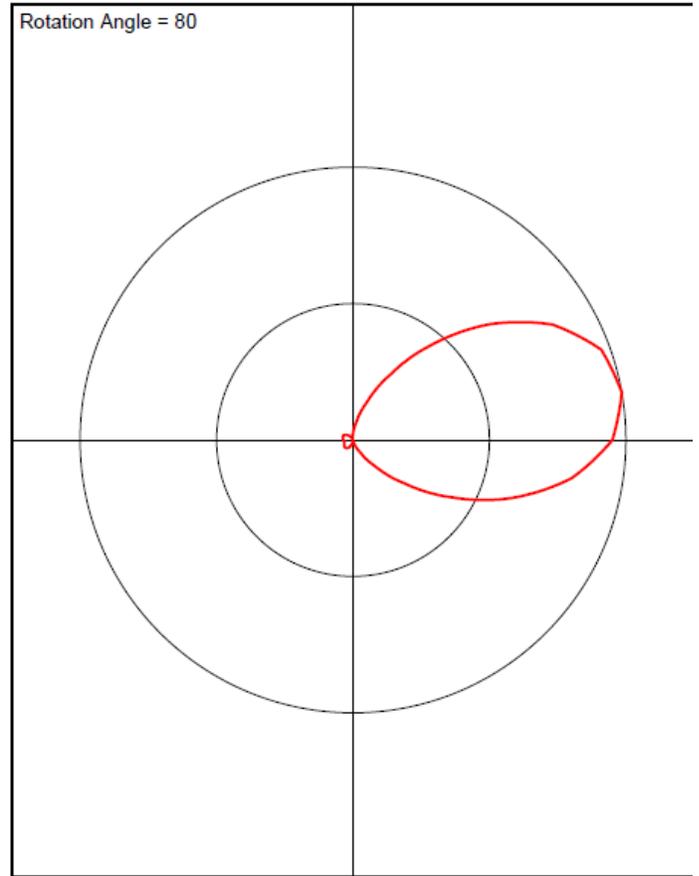


EXHIBIT C- Antenna Pattern

Rocky Ridge Antenna Pattern
 Post-Rotation Antenna Pattern....

Azimuth (deg)	Relative Field
0.0	0.022
5.0	0.042
10.0	0.062
15.0	0.1035
20.0	0.145
25.0	0.212
30.0	0.279
35.0	0.3695
40.0	0.46
45.0	0.5605
50.0	0.661
55.0	0.753
60.0	0.845
65.0	0.9065
70.0	0.968
75.0	0.984
80.0	1.0
85.0	0.975
90.0	0.95
95.0	0.881
100.0	0.812
105.0	0.7165
110.0	0.621
115.0	0.521
120.0	0.421
125.0	0.3345
130.0	0.248
135.0	0.186
140.0	0.124
145.0	0.0875
150.0	0.051
155.0	0.0345
160.0	0.018
165.0	0.0125
170.0	0.007
175.0	0.0055
180.0	0.004
185.0	0.0075
190.0	0.011
195.0	0.0165
200.0	0.022
205.0	0.0275
210.0	0.033
215.0	0.036
220.0	0.039
225.0	0.0395
230.0	0.04
235.0	0.0385
240.0	0.037
245.0	0.0355
250.0	0.034
255.0	0.0335
260.0	0.033
265.0	0.034
270.0	0.035
275.0	0.0365
280.0	0.038
285.0	0.039
290.0	0.04
295.0	0.0385
300.0	0.037
305.0	0.033
310.0	0.029
315.0	0.0235



320.0	0.018
325.0	0.013
330.0	0.008
335.0	0.006
340.0	0.004
345.0	0.006
350.0	0.008
355.0	0.015