

Comprehensive Technical Statement

In support of

Nevada County Broadcasters, Inc.

Minor Amendment to

Construction Permit for

Minor Modification to FM Translator

K233CA, Facility ID # 147454

Grass Valley, CA

Introduction

The instant application proposes to move the transmitter site from the licensed location to the construction-permitted location and change frequency from channel 233 to second-adjacent channel 235. The licensed 60dbu f(50,50) contour overlaps the proposed 60dbu f(50,50) contour. This is therefore a minor change to both the license and the construction permit.

While this application amends the construction permit, comparisons are provided to the licensed facility. Therefore, this application stands on its own as a minor modification to the licensed facility.

The following changes from the licensed facility are proposed:

- Effective Radiated Power
- Change to Non-Directional Antenna
- Transmitter Site
- Height Above Ground
- Height Above Mean Sea Level

Allocation Study

The following table lists all full power and low power FM conflicts that do not exceed the 73.207 required spacings for a full power Class A FM station by at least 25km:

app_id	adj	chan	status	call	st	city	erp	da	haat	brg	dkm	req	Δ
259424	1	234B1	LIC	KSSJ	CA	FAIR OAKS	25	N	99	207	71.09	96	-24.91
1302341	1	236L1	CP	KFOK-LP	CA	GEORGETOWN	0.001	N	351	161	39.18	56	-16.82
664272	1	236L1	LIC	KFOK-LP	CA	GEORGETOWN	0.002	N	219	164	39.19	56	-16.81
67247	1	236B	LIC	KMXI	CA	CHICO	8.7	N	357	320	101.38	113	-11.62
178289	3	238C	LIC	KNEV	NV	RENO	60	N	695	89	108.77	95	13.77

In addition, the following translator records were considered:

app_id	adj	chan	status	call	st	city	erp	da	haat	brg	dkm
641403	2	237D	APP	NEW	CA	GRASS VALLEY	0.011	N	0	223	17.06
636849	3	238D	APP	NEW	CA	MEADOW VISTA	0.02	Y	0	183	21.93
1146952	0	235D	LIC	K235BJ	CA	HOMWOOD	0.01	N	0	100	62.83
644335	1	234D	APP	NEW	CA	EAST QUINCY	0.01	N	0	1	70.83

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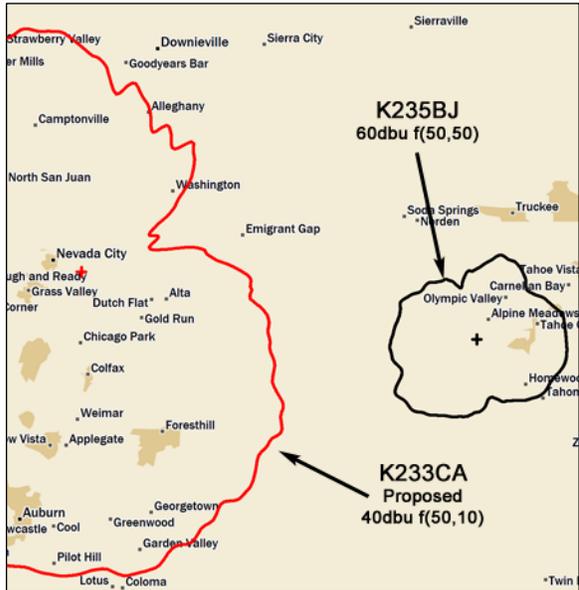
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Detailed Interference Study

The following collection of maps and the narrative accompanying each show conclusively that no prohibited overlap will occur between the proposed facility and the conflicts listed in the allocation study.

Map 1 – Co-channel Outbound Interference



There is only one co-channel conflict, K235BJ.

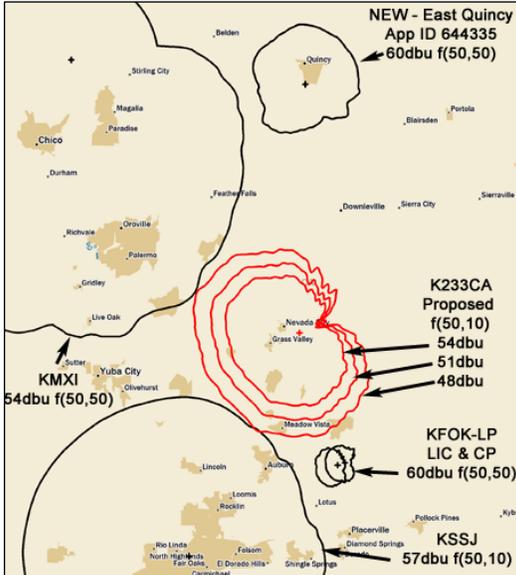
There is no prohibited overlap between the interfering 40dbu f(50,10) contour of the proposed facility and the protected 60dbu f(50,50) contour of K235BJ.

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Map 2 – First Adjacent Outbound Interference

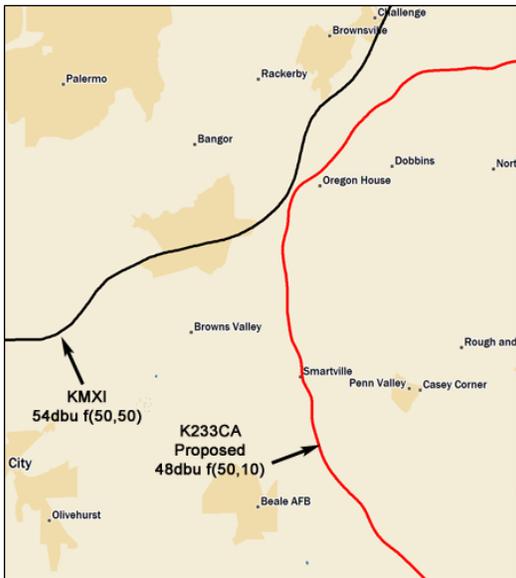


There are five first adjacent conflicts:

KMXI is Class B, protected to its 54 dbu f(50,50) contour. The maximum permissible interfering signal is 48dbu f(50,10). The proposed interfering contour is close to the protected contour. A detail map is provided below.

KSSJ is Class B1, and is protected to its 57dbu f(50,50) contour. The maximum permissible interfering signal is 51dbu f(50,10). It is clear that these contours do not overlap.

The other conflicts are protected to their 60dbu f(50,50) contour. The maximum permissible interfering signal is 54dbu f(50,10). It is clear that these contours do not overlap.



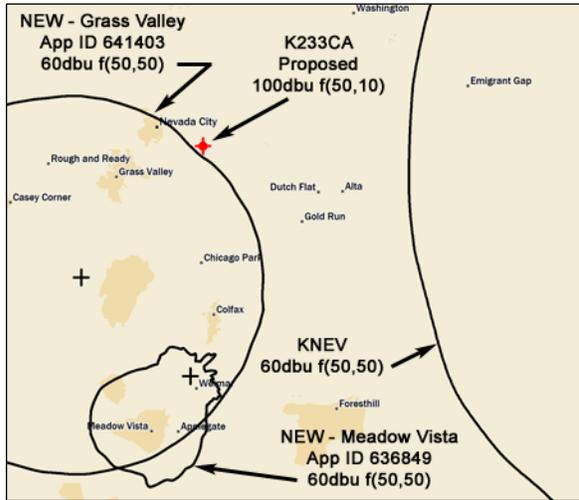
This detail map shows that there is no overlap between the protected 54dbu f(50,50) contour of KMXI and the proposed 48dbu f(50,10) interfering contour of K233CA.

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Map 3 – Second/Third Adjacent Outbound Interference



There is no overlap between the proposed interfering 100dbu f(50,10) contour and the protected 60dbu f(50,50) contours of the conflicts.

IF Separation requirements

There are no IF-separated translators within 20km. The proposed ERP is less than 100W, and IF separations are not required for full power stations.

Channel 6 Interference

The proposed facility is not on a channel that is implicated in channel 6 interference.

International

The distance between the proposed transmitter site and the Canadian border is 1,019 km.

The distance between the proposed transmitter site and the Mexican border is 822 km.

The proposed 34dbu f(50,10) contour does not cross any international border.

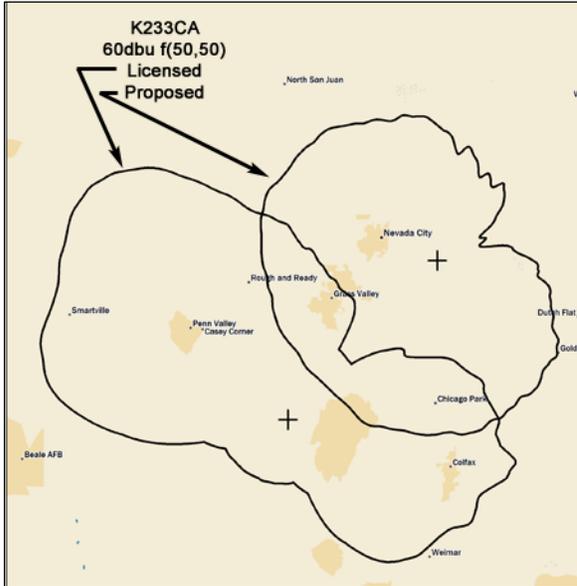
International notification is therefore not required.

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Minor Change

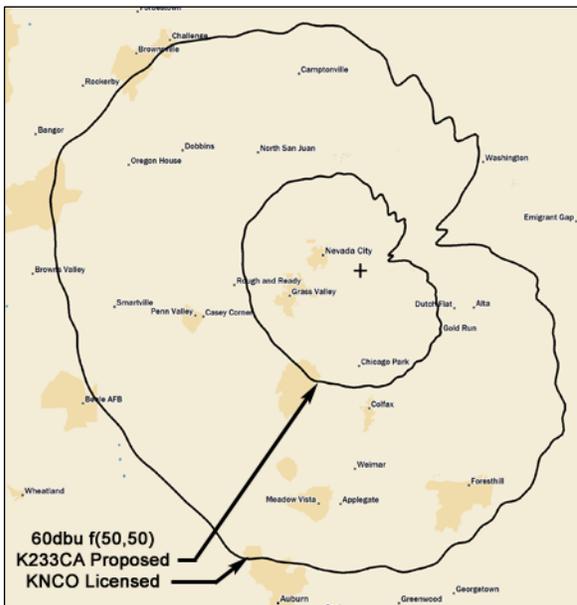


The licensed channel is 233. The proposed channel is 235, a second adjacent channel.

The proposed 60dbu f(50,50) contour overlaps the licensed 60dbu f(50,50) contour.

Therefore, the proposal represents a minor change.

Fill-In Translator



The primary station is KNCO (FM).

The proposed 60dbu f(50,50) contour of K233CA is contained entirely within the 60dbu f(50,50) contour of the primary station.

K233CA is co-owned with KNCO.

KNCO operates on channel 231. K233CA is proposed to move to channel 235, which is not a mutually exclusive channel with KNCO.

Therefore, the proposal is for a fill-in translator.

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Transmitter Location

The proposed transmitter site is owned and operated by the applicant. Control over the site is therefore not an issue.

RF Exposure

According to 47 C.F.R 1.1307 (b) (1) Table 1, FM Translator stations with 100W or less ERP are exempted from RF exposure study. The proposed ERP is 20 W-H + 20 W-V, for a total of 40 W. The facility is therefore exempt from RF exposure studies.

Appropriate signage and fencing are in place.

The applicant agrees to coordinate with other users of the site to reduce power or shut down in order to protect workers at the site.

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