

EXHIBIT 13

Interference Considerations

Introduction

This application for modification of construction permit File Number BNPFT-20130815ACA for FM Translator K232EW, Ventura, California, requests a change in the location of the transmitting facilities for the translator, an increase in effective radiated power to 12 watts, and a different directional antenna radiation pattern.

The geographical coordinates (NAD27) of the proposed FM translator site are as follows:

North latitude: 34° 20' 00"

West Longitude: 119° 00' 56".

At this location the ground elevation is 680 meters above mean sea level.

The proposed operation of K232EW conforms with the requirements of Section 74.1204 of the Commission's Rules for a Class D station on Channel 232 with respect to overlap of predicted contours with the licensed operation of any FM station, LPFM station or FM translator, and the operation of any such facilities specified in a construction permit or pending application, on the same channel and the first adjacent channels, as shown in this Exhibit. On two of the second adjacent channels and one of the third adjacent channels, the proposed translator site is located within the predicted protected contour of existing FM stations. This Exhibit demonstrates that, under Section 74.1204(d) of the Rules, no objectionable interference will be caused to the FM stations. The proposed FM translator therefore would not result in objectionable interference to any station.

Description of Directional Antenna System

The composite directional antenna system for the proposed operation of K232EW is comprised of two circularly polarized Scala Model CA2-FM/CP Antennas spaced 0.87-wavelength apart in the horizontal plane, with both of the two-element Yagi antennas oriented to 194.0 degrees True. One of the Yagi antennas is driven with a phase delay of -30.0 degrees from the second, and the antennas are fed to radiate equal maximum fields. The Yagi antenna driven with the phase delay would be on the left if both antennas were oriented to zero degrees True. The antenna system will be side-mounted on an existing supporting structure, with the radiation center located 29 meters above ground.

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The values of relative radiation for the horizontal radiation pattern for the composite antenna array are tabulated in Item 10 of the Tech Box in Section III-A of FCC Form 349 for this application. This data was provided by the antenna manufacturer, Kathrein Inc., Scala Division, of Medford, Oregon.

Allocation Study

The FM stations, LPFM station and FM booster taken into account in the allocation study for this application are listed in Table A of this Exhibit.

Figure 1 of this Exhibit shows the pertinent predicted contours for the proposed FM translator and co-channel station KBUA(FM), San Fernando, on Channel 232A; and associated FM booster KBUA-FM1, Valencia and Newhall, on Channel 232D (both in California).

The pertinent predicted contours for the proposed FM translator and first-adjacent-channel station KFYZ(FM), Ellwood, on Channel 233B; and the authorized operation of KIND-LP, Oxnard, on Channel 231L1 (both in California), are shown respectively in Figures 2A and 2B of this Exhibit.

Figure 3 of this Exhibit depicts the location of the proposed FM translator site with respect to the predicted protected contours for the nearby FM stations on the second- and third-adjacent channels.

As shown in Figure 3, the proposed translator site is located within the 54 dBu F(50,50) contours for KTWV(FM), Los Angeles, on Channel 234B; KDB(FM), Santa Barbara, on Channel 229B; and KXOS(FM), Los Angeles, on Channel 230B (all in California).

The potential for interference from the proposed FM translator to KTWV(FM), KDB(FM) and KXOS(FM) was evaluated by determining the area in which the ratio of undesired to desired signal between the proposed translator and each of these stations equals or exceeds 40 dB, using free space propagation calculations for the translator signal.

With respect to KTWV(FM), the predicted F(50,50) signal of KTWV(FM) at the proposed FM translator site is 61.4 dBu, and interference would occur where the translator signal is 101.4 dBu (117.5 mV/m) or greater. In the case of KDB(FM), the predicted F(50,50) signal of KDB(FM) at the proposed translator site is 56.8 dBu, and interference would occur where the translator signal is 96.8 dBu (69.2 mV/m) or greater.

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The predicted F(50,50) signal of KXOS(FM) at the proposed FM translator site is 55.4 dBu, and interference would occur where the translator signal is 95.4 dBu (58.9 mV/m) or greater. Computations show that, for operation at 12 watts effective radiated power and assuming uniform radiation from the translator in all directions in the horizontal plane, interference to KXOS(FM) would not extend beyond a distance of 412 meters from the translator antenna.

The map of Figure 4 of this Exhibit is a USGS 7-1/2-minute topographic map showing the vicinity of the proposed FM translator site. Figure 4 depicts the proposed translator site and a circle drawn at a radius of 0.412 kilometer from the proposed antenna system. An up-to-date review of the character of the area within this circle was made by this engineer in a visit to the proposed site in June 2015.

The location of the proposed FM translator is at a communications site on a mountain ridge, with rugged mountainous terrain extending in all directions. The surrounding area is an oil field, and includes a number of oil well installations that are essentially unattended. There are no residences or occupied buildings, and no roads other than access roads to the communications site and the oil field, within 0.412 kilometer of the proposed translator antenna. This application conforms with the requirements of Section 74.1204(d) of the Commission's Rules, as the area within the circle is unpopulated, and operation of the proposed FM translator therefore would not result in objectionable interference to KTWV(FM), KDB(FM) or KXOS(FM).

The predicted contours shown in this Exhibit were determined in accordance with the requirements of Section 73.313 of the Commission's Rules, from computerized calculations based on the NGDC 30-second terrain database and Figures 1 and 1a of Section 73.333 of the Rules. Distances to contours were calculated at azimuthal increments of one degree.

July 2015

Fred W. Volken
Engineering Consultant

Sierra Madre, California

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TABLE A

Station Facilities

	Channel and Class	Station and Location, Status, File Number	Geographical Coordinates	Facilities	
				Effective Radiated Power and Antenna	Antenna Height Above Average Terrain (meters)
Co-Channel Stations	223D	Proposed K232EW, Ventura, CA	N 34° 20' 00" W 119° 00' 56"	0.012 kW Directional	-----
	232A	KBUA(FM), San Fernando, CA License BLH-20041223ACC	N 34° 17' 03" W 118° 28' 17"	6.0 kW Nondirectional	26
	232D	KBUA-FM1, Valencia & Newhall, CA License BLFTB-19841019TE	N 34° 19' 30" W 118° 34' 36"	0.046 kW Directional	592
First Adjacent Channel Stations	231L1	KIND-LP, Oxnard, CA Construction permit BNPL-20131113BOF	N 34° 13' 44" W 119° 10' 16"	0.050 kW Nondirectional	17.1
	233B	KFYZ(FM), Ellwood, CA License BLH-19890214KC	N 34° 31' 32" W 119° 57' 28"	0.88 kW Nondirectional	899

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TABLE A (continued)

Station Facilities

	Channel and Class	Station and Location, Status, File Number	Geographical Coordinates	Facilities	
				Effective Radiated Power and Antenna	Antenna Height Above Average Terrain (meters)
Second and Third Adjacent Channel Stations	229B	KDB(FM), Santa Barbara, CA License BMLEL-20140402AQE	N 34° 27' 58" W 119° 40' 37"	12.5 kW Nondirectional	265
	230B	KXOS(FM), Los Angeles, CA License BLH-20060323ABU	N 34° 13' 36" W 118° 03' 59"	18.5 kW Directional	917
	234B	KTWV(FM), Los Angeles, CA License BMLH-20021104ADN	N 34° 13' 29" W 118° 03' 47"	58.0 kW Nondirectional	863

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FIGURE 1
Co-Channel Interference Considerations

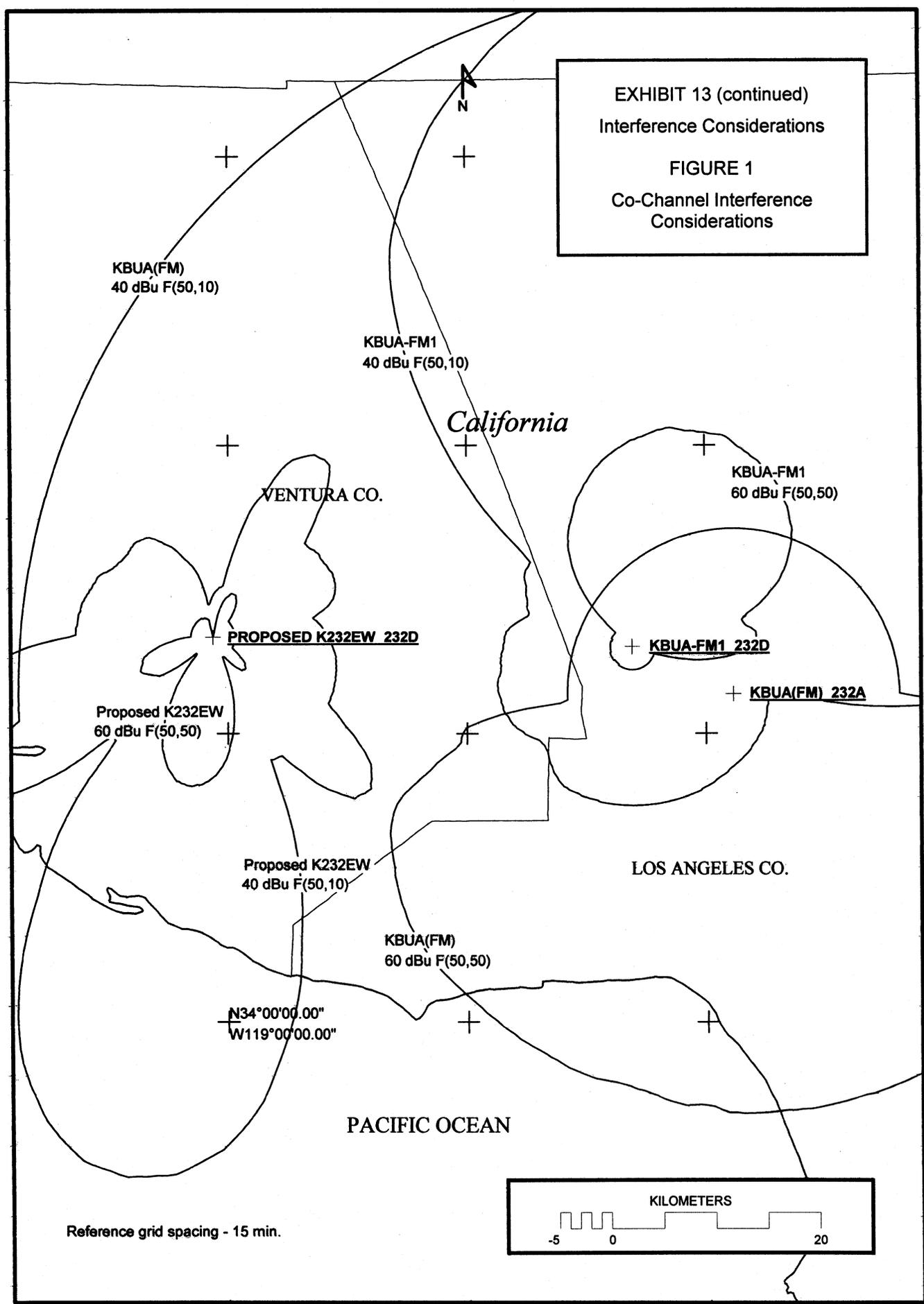


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FIGURE 2A

First Adjacent Channel
Interference Considerations

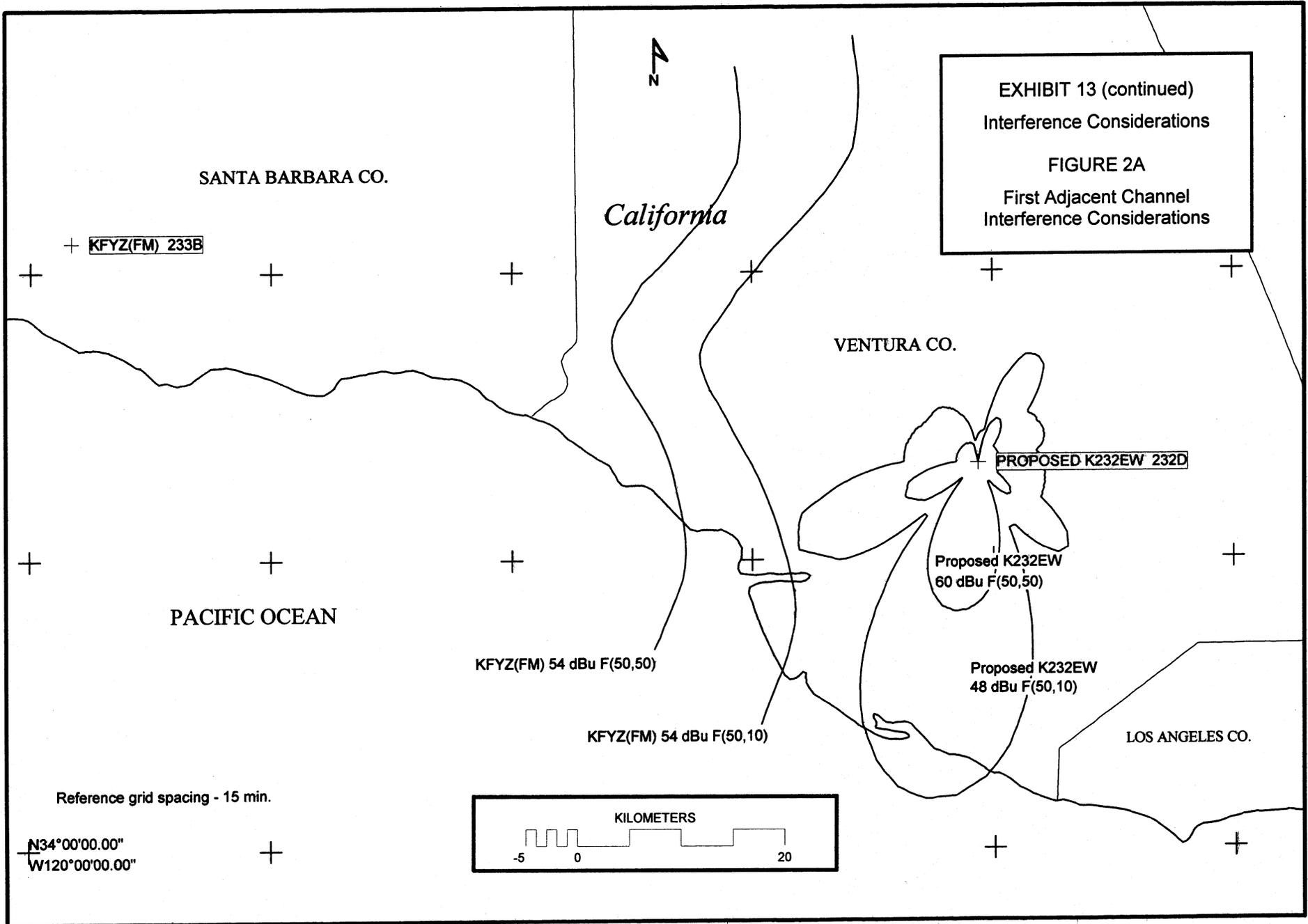
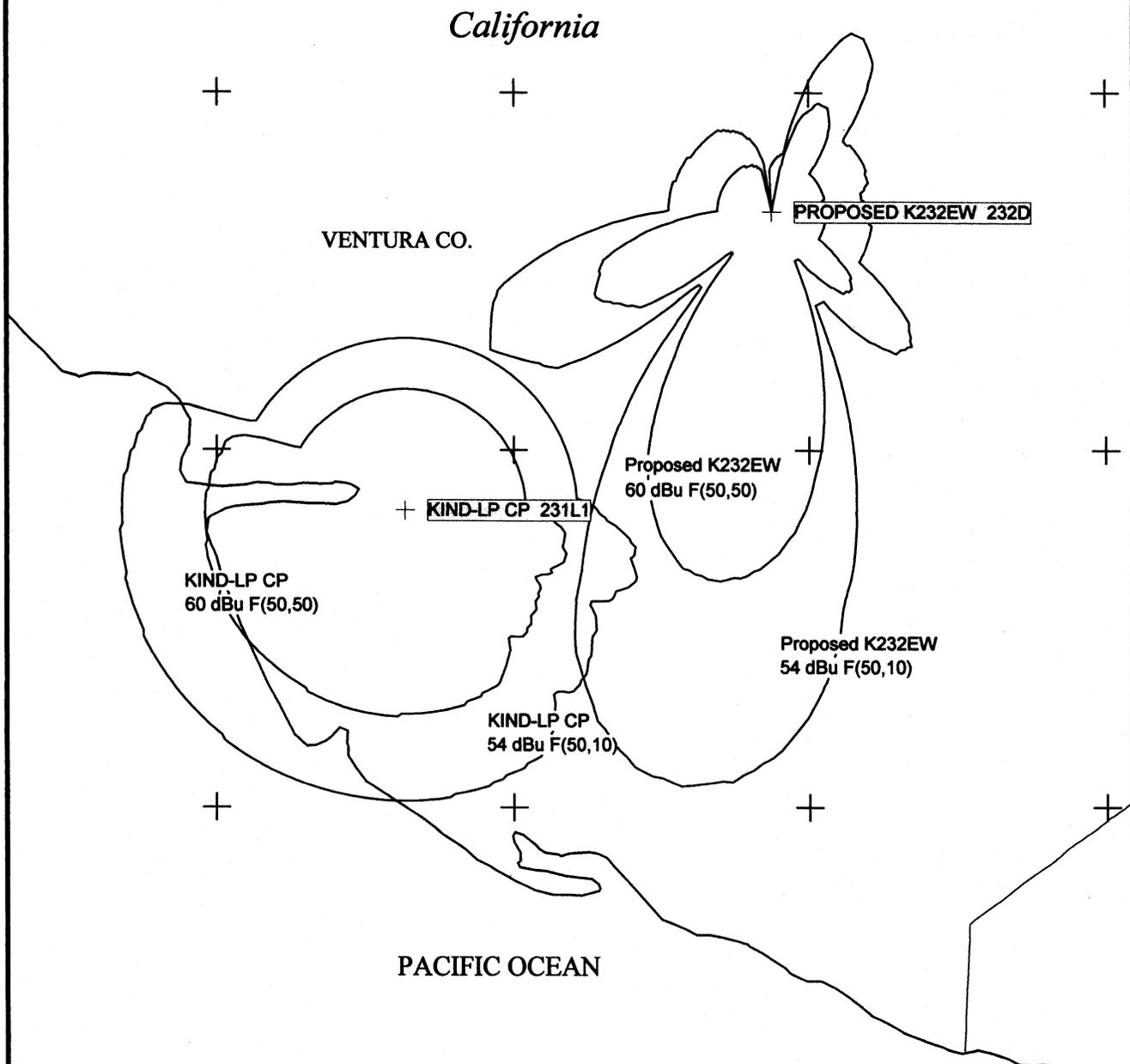


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FIGURE 2B
First Adjacent Channel
Interference Considerations



Reference grid spacing - 7.5 min.

N34°00'00.00"
W119°15'00.00"

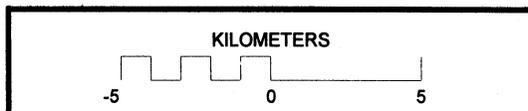


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FIGURE 3
Second and Third Adjacent Channel
Interference Considerations

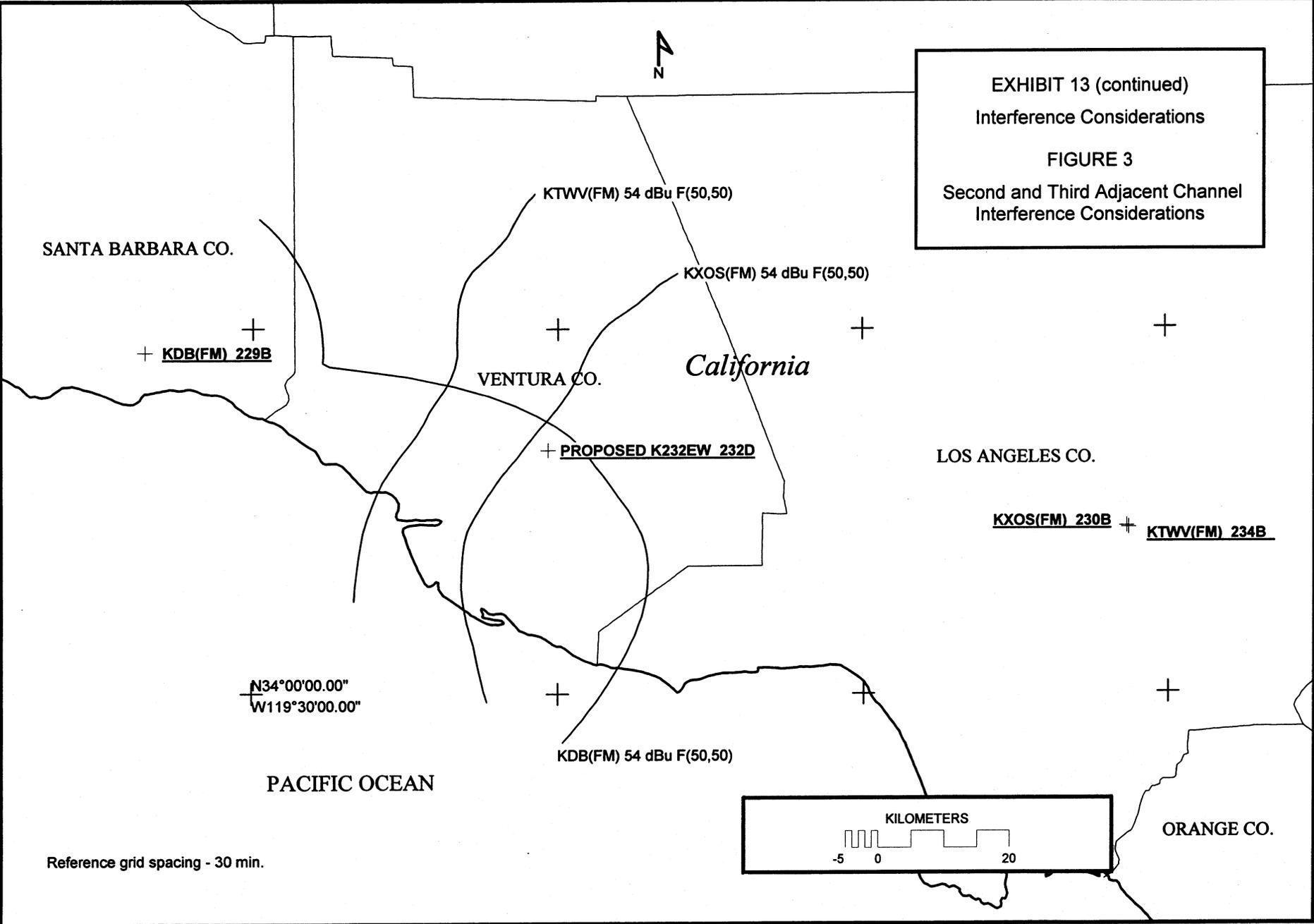


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FIGURE 4
Second and Third Adjacent Channel
Interference Considerations



0.412 km radius

Map consists of portion of Santa Paula, Calif.
(1951, Photorevised 1967), USGS 7-1/2 minute
topographic quadrangle. Contour interval 20 feet
(dotted lines represent half-interval contours).

N 34-18-00

W 119-02-00

Reference grid spacing - 1 min.

