

TECHNICAL EXHIBIT  
REQUEST FOR SPECIAL TEMPORARY AUTHORITY  
CLASS A STATION K35ER  
FACILITY ID 31352  
SANTA MARIA, CALIFORNIA  
CH 35 20 KW (MAX-DA)

Technical Narrative

The technical exhibit of which this narrative is part was prepared in support of a request for Special Temporary Authority (STA) for Class A station K35ER at Santa Maria, California (Facility ID: 31352). Class A station K35ER is licensed (BLTTL-19980902JD) for operation on channel 35 with a maximum directional effective radiated power (ERP) of 20.8 kilowatts and an RCAMSL of 500 meters. The station also has an STA (BSTA-20041207ADG) for operation on channel 35 with a maximum directional effective radiated power (ERP) of 56 kilowatts and an antenna radiation center height above mean sea level (RCAMSL) of 418 meters. This proposed STA will supersede the existing STA.

Purpose of STA Request

Class A station K35ER proposes to relocate transmitting site, decrease the maximum ERP, increase the antenna radiation center height above mean sea level (RCAMSL) and employ its current Bogner B8UB directional antenna system. No other changes are proposed, including channel (35), frequency offset (+), or community of license (Santa Maria). The proposal will result in 74 dBu service to areas not currently served by K35ER's licensed facilities. Therefore, due to the current FCC freeze on such proposals, it is necessary to request an STA to implement the facility modification.<sup>1</sup>

Proposed Operation

It is proposed to operate on NTSC TV channel 35 (596-602 MHz) from an existing tower site (NAD27 coordinates: N34°54'37", W120°11'09") with a "plus" carrier frequency offset, a directional antenna maximum ERP of 20 kW and an RCAMSL of 1020 meters. It is proposed to side-mount a Bogner B8UB directional

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<sup>1</sup> See FCC Public Notice released August 3, 2004 entitled "Freeze on the Filing of Certain TV and DTV Requests for Allotment or Service Area Changes" (DA 04-2446).

antenna at the 30-meter level on an existing 43.9 meter tower (FCC Tower Registration Number - 1032645). The Bogner B8UB directional antenna will be oriented at 270 degrees true.

#### Analog TV Broadcast Analog Protection

A study has been conducted using the provisions of Section 74.705 which indicates that the proposed K35ER operation on NTSC channel 35 will not create prohibited interference to other existing, authorized or proposed TV broadcast analog (NTSC) full-power stations. However, the proposed K35ER operation is involved in prohibited contour overlap with full-service NTSC station KCBA and therefore, an interference study was prepared with respect to KCBA based on the provisions of the OET-69 Bulletin as permitted by FCC rules [Section 74.705(e)]. It is believed that K35ER's proposed operation complies with the FCC's interference criteria towards KCBA. Specifically, calculations were made using the procedures outlined in the FCC's OET-69 Bulletin and a 1 square kilometer grid. The results of the interference study indicate that the proposed K35ER facility does not cause any interference to KCBA.<sup>2</sup>

#### DTV Station and DTV Table of Allotments Protection

Calculations based on OET Bulletin No. 69 indicate that the proposed K35ER operation on NTSC channel 35 complies with the FCC's 0.5% interference threshold criteria to all allotted, proposed or actual DTV operating facilities on channels 34, 35, and 36.

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<sup>2</sup> The du Treil, Lundin & Rackley, Inc. DTV interference analysis program is based on the program and procedures outlined by the FCC in the Sixth Report and Order; subsequent Memorandum Opinion and Order; and FCC OET Bulletin No. 69. A nominal grid size resolution of 1 km was employed. A Sun based processor computer system was employed. The results have been found to be in very close agreement with the results of the FCC implementation of OET Bulletin 69.

LPTV/TV Translator, Class A and Digital Class A Protection

A study has been conducted which indicates that the K35ER proposal will not create prohibited interference to other existing, authorized or proposed LPTV, TV Translator, Class A and digital Class A stations with the exception of the licensed (BLTTL-20070409ADX) and the pending application facility (BPTTL-20070801IGS) of LPTV station KSSY-LP on channel 20 at Arroyo Grande, CA. However, based on the provisions of OET-69 Bulletin as permitted by FCC rules [Section 74.707(e)] it is believed that K35ER's proposed operation complies with the FCC's interference criteria towards KSSY-LP. Specifically, calculations were made using the procedures outlined in the FCC's OET-69 Bulletin and a 1 square kilometer grid. The results of the OET Bulletin No. 69 calculations indicate that the K35ER proposal is not predicted to cause interference to the KSSY-LP facilities.

Land Mobile Station Protection

The proposed K35ER operation does not cause interference to land mobile radio stations (LMRS).

Environmental Considerations

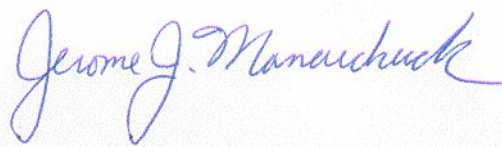
The proposed facility has been evaluated in terms of potential radiofrequency electromagnetic field exposure at ground level in accordance with OET Bulletin No. 65, Evaluating Compliance with FCC Specified Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields.<sup>3</sup> The power density at the base of the tower was calculated using the appropriate procedures contained in the Bulletin.

The proposed K35ER antenna will be side-mounted on an existing 43.9 meter supporting structure. The antenna center of radiation is located 30 meters above ground level. The calculated power density at 2 meters above ground level (AGL) was calculated using the appropriate equation contained in the Bulletin. As shown on Figure 2 (antenna vertical relative field pattern), the maximum vertical relative field for depression angles towards the tower base ( $-60^{\circ}$  to  $-90^{\circ}$ ) is less than 0.2. Therefore, using a conservative vertical relative field of 0.2, the maximum ERP of 20 kilowatts, 10% aural power (2 kW) and an

antenna center of radiation height above ground level of 30 meters, the calculated power density at 2 meters above the ground is 0.0170 milliwatts per square centimeter ( $\text{mW}/\text{cm}^2$ ), or 4.27% of the Commission's recommended limit applicable to uncontrolled exposure areas ( $0.4 \text{ mW}/\text{cm}^2$  for TV channel 35). Therefore, it is believed the proposal complies with the FCC's RF emission rules.

Access to the tower site will be restricted and appropriately marked with warning signs. Furthermore, as this is a multi-user site, an agreement will be in effect in the event that workers or other authorized personnel enter the restricted area or climb the tower to ensure that appropriate measure will be taken to assure worker safety with respect to radio frequency radiation exposure. Such measures reducing the average exposure by spreading out the work over a longer period of time, wearing "accepted" RFR protective clothing and/or RFR exposure monitors or scheduling work when the stations are at reduced power or shut down.

It is noted that this statement only addresses the potential for radiofrequency electromagnetic field exposure. All other aspects of the environmental processing analysis will be or already have been provided to the FCC by the tower owner as part of the tower registration process.



Jerome J. Manarchuck

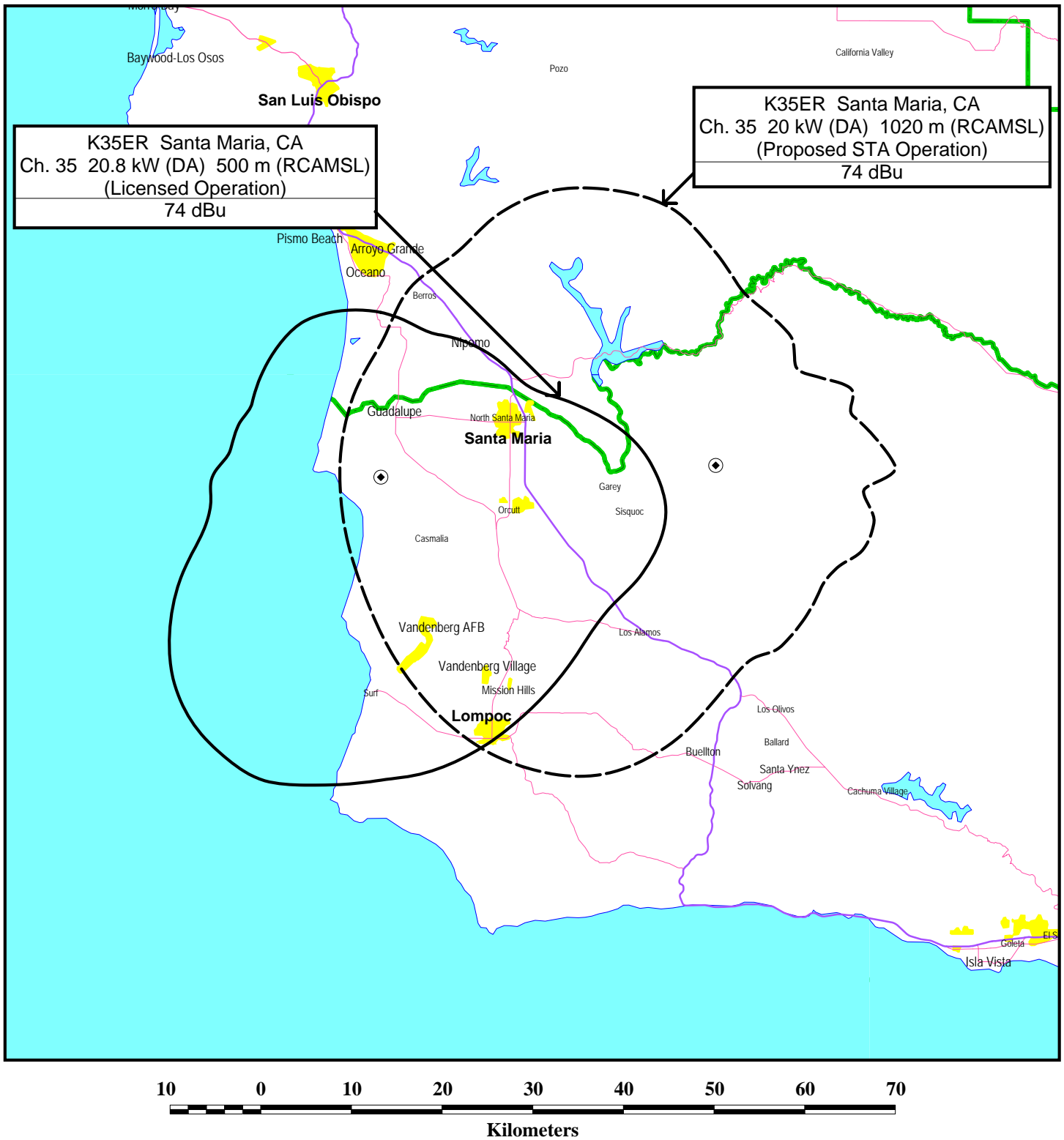
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<sup>3</sup> OET Bulletin 65, Second Edition 97-01, August, 1997.

Figure 1



## FCC PREDICTED COVERAGE CONTOURS

LPTV STATION K35ER  
SANTA MARIA, CALIFORNIA  
CH 35 20 KW (DA) 1020 M (RCAMSL)

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

Figure 2

**BOGNER BROADCASTS EQUIPMENT CORP.**

603 Cantlagu, Rock Road  
WESTBURY, NEW YORK 11590

BOGNER VERTICAL PLANE RADIATION PATTERN B8U( )

LOW & MEDIUM POWER

