

TECHNICAL EXHIBIT  
REQUEST FOR SPECIAL TEMPORARY AUTHORITY (STA)  
CLASS A STATION KTFB-CA  
FACILITY ID 18732  
BAKERSFIELD, CALIFORNIA  
CH 4 0.15 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), pursuant to Section 73.1635, to operate KTFB-CA on channel 4 with facilities that differ from its licensed facility.

Station KTFB-CA is currently licensed (BLTVL-19981026JJ) to operate on NTSC channel 4 (66-72 MHz) at Bakersfield with a directional antenna maximum effective radiated power (ERP) of 0.28 kilowatts (kW) and an antenna radiation center height above mean sea level (RCAMSL) of 1078 meters. It is licensed to operate with a Scala "composite" directional antenna system (Antenna ID 22504) with a main lobe orientation of 265° true.

Response to Paragraph 8 and Proposed STA facilities

Class A station KTFB-CA proposes to change transmitter site, increase its RCAMSL and decrease its ERP. The current KTFB-CA operation is from a tower site located within an antenna farm. Station KTFB-CA proposes to change to an adjacent tower located within the same antenna farm. The new tower site is located approximately 160 meters (0.16 km) northeast of the current tower site. Specifically, this instant STA request proposes operation on channel 4 with a maximum directional ERP of 0.15 kilowatts, an RCAMSL of 1084 meters, and employing a the licensed Scala composite directional antenna system with a main lobe orientation of 265° true<sup>1</sup> at the following coordinates:

North Latitude 35° 26' 20"  
West Longitude 118° 44' 24"

No other changes are proposed. It is believed the proposed STA operation is in the public interest as it will permit KTFB-CA to continue to provide service to its Spanish language viewers.

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<sup>1</sup> Nominal pattern rotation will be 0°.

Response to Paragraph 7.50 - Antenna Registration

Station KTFB-CA proposes to side-mount the directional antenna on an existing 54-meter supporting structure. Based on the FCC's TOWAIR program, registration is not required. The output of the FCC's TOWAIR program is attached as Figure 2.

Freeze Compliance/Predicted 62 dBu Contours

Figure 1 is a map showing the licensed (solid black line) and proposed STA (dashed purple line) 62 dBu contours for Class A station KTFB-CA. As indicated, the proposed STA 62 dBu contour is entirely within the licensed 62 dBu contour with the exception of insignificant extensions in the minor lobe/null area of approximately 80 meters (0.08 km). Therefore, it is believed that the proposed STA operation complies with the FCC's current freeze on coverage extensions.

Interference Compliance

The proposed KTFB-CA STA operation complies with the FCC's applicable Class A interference requirements contained in Sections 74.705, 74.706, 74.707, 74.708, 74.709 and 74.710 with the exception of the licensed analog operation of KEYT on NTSC channel 3 at Santa Barbara, California (BLCT-2193). However, the licensed KTFB-CA operation is also involved in excessive calculated interference to KEYT (greater than 0.5%). The licensed KTFB-CA operation previously complied with the interference criteria using the FCC's LPONE program but now does not comply based on the FCC's TVProcess program (which includes the a revised LPONE routine).<sup>2</sup> It is noted that the proposed STA operation will not result in extension of the licensed protected contour (except as noted above) and will reduce the calculated interference to KEYT. It is further noted that there have been no known instances of actual interference to KEYT.

Environmental Protection Act

The proposed KTFB-CA facilities were evaluated in terms of potential radiofrequency radiation exposure at ground level in

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<sup>2</sup> Station KTFB-CA will be seeking a displacement channel operation based on the excessive interference calculated to KEYT.

accordance with OET Bulletin No. 65, "Evaluating Compliance With FCC-Specified Guidelines for Human Exposure to Radiofrequency Radiation." The calculated power density at 2 meters above ground level at the base of the tower was calculated using the appropriate equation of the Bulletin. As shown on Figure 3 (antenna vertical relative pattern), the maximum vertical relative field for depression angles towards the tower base ( $-60^{\circ}$  to  $-90^{\circ}$ ) is less than 0.40. Therefore, using a vertical relative field value of 0.40, a peak visual effective radiated power of 0.15 kW, 10 percent aural power, and an antenna center of radiation height above ground level of 11 meters, the calculated power density at 2 meters above ground level at the base of the tower is 0.0049 milliwatt per square centimeter ( $\text{mW}/\text{cm}^2$ ), or 2.5 percent of the Commission's recommended limit for an "uncontrolled" environment ( $0.2 \text{ mW}/\text{cm}^2$  for TV channel 4). Therefore, the facility complies with the FCC's RF emission rules.

Access to the transmitting site will be restricted and appropriately marked with warning signs. Furthermore, as this is a multi-user site, an agreement will be in place to ensure that appropriate measures will be taken to assure worker safety with respect to radio frequency radiation exposure. Such measures include 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.<sup>3</sup>



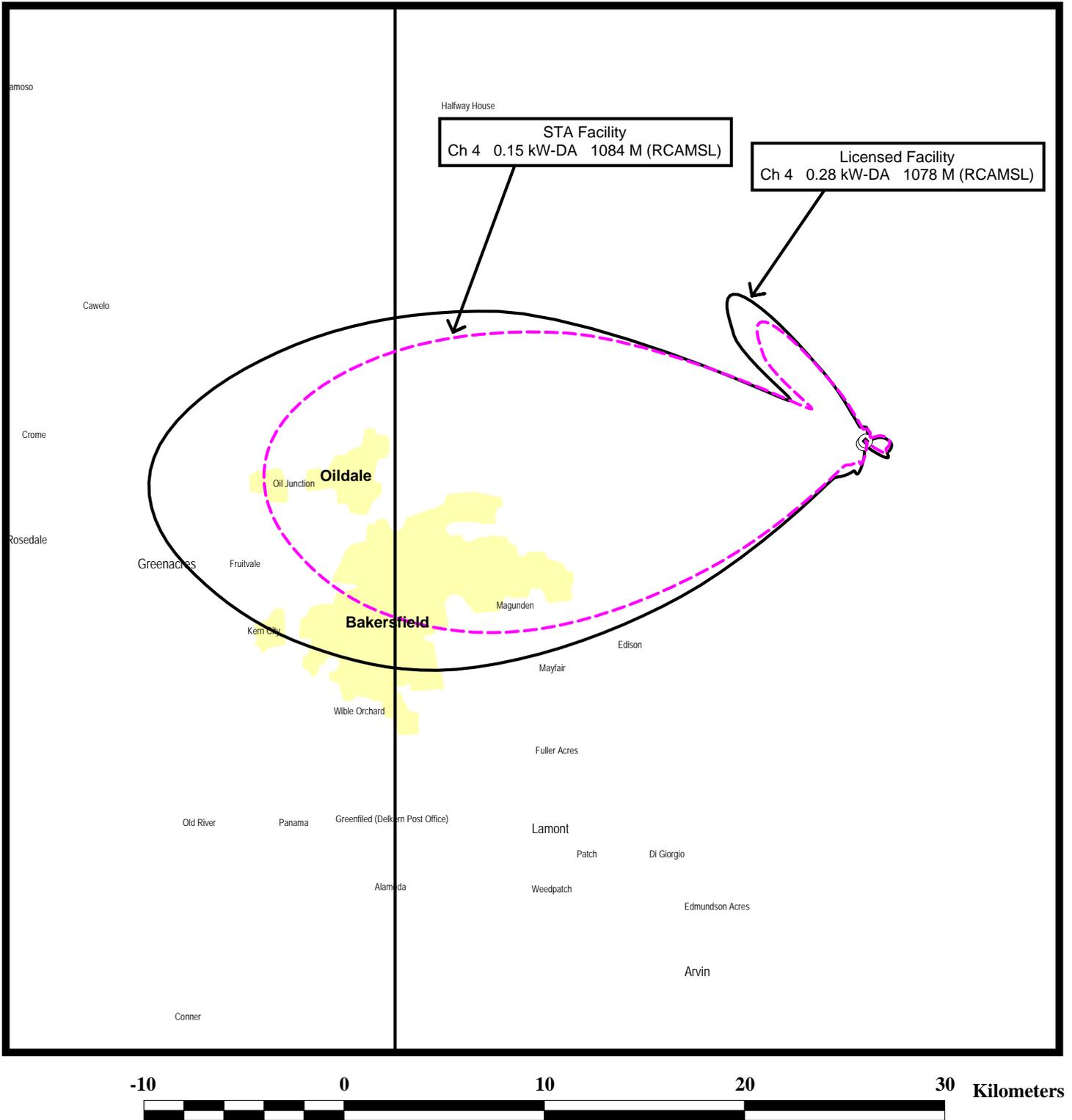
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<sup>3</sup> It is noted that this statement only addresses the potential for radiofrequency electromagnetic field exposure.



## FCC 62 DBU PREDICTED COVERAGE CONTOURS

STA OPERATION  
CLASS A STATION KTFB-CA  
BAKERSFIELD, CALIFORNIA  
CH 4 0.15 KW (MAX-DA)

## TOWAIR Determination Results

### \*\*\* 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

**Structure does not require registration. There are no airports within 8 kilometers (5 miles) of the coordinates you provided.**

#### Your Specifications

##### NAD83 Coordinates

Latitude	35-26-19.8 north
Longitude	118-44-27.3 west

##### Measurements (Meters)

Overall Structure Height (AGL)	54
Support Structure Height (AGL)	54
Site Elevation (AMSL)	1073

##### Structure Type

TOWER - Free standing or Guyed Structure used for Communications Purposes

#### [Tower Construction Notification](#)

Notify Tribes and Historic Preservation Officers of your plans to build a tower.

Note: Notification does NOT replace [Section 106 Consultation](#).

CLOSE WINDOW

Figure 3

