TECHNICAL EXHIBIT
APPLICATION FOR MODIFICATION OF CONSTRUCTION PERMIT
LPTV STATION K21GC
FACILITY ID 128900
SAFFORD, ARIZONA
CH 21 9.95 KW (MAX-DA)

Technical Narrative

The technical exhibit of which this narrative is part was prepared in support of an application for modification of construction permit (CP) for LPTV station K21GC at Safford, Arizona (Facility ID: 128900; File No. BNPTTL-20000831BLF). Specifically, this application proposes to modify the K21GC CP operation by changing the transmitter site location, changing the antenna system, decreasing the proposed maximum directional effective radiated power (ERP), and increasing the antenna radiation center height above mean sea level (RCAMSL). No other changes are proposed. This application is considered a "minor change" in facilities pursuant to Section 73.3572, as there will be no change in frequency (output channel) and the proposed 74 dBu contour will overlap a portion of the licensed 74 dBu contour (Figure 1).

It is proposed to operate on channel 21 (512-518 MHz) with a "minus" carrier frequency offset and employing a RFS RD8S directional antenna. The maximum directional ERP will be 9.95 kW. The antenna will be mounted at the 19 meter (62 foot) level on an existing tower.

TV Broadcast Analog Protection

A study has been conducted using the provisions of Section 74.705 which indicates that the proposed K21GC operation will not create prohibited interference to other existing, authorized or proposed NTSC full-power stations.

DTV Station Protection

Calculations based on OET Bulletin No. 69 indicate that the proposed K21GC operation on channel 21 will not cause any (0.0%) prohibited interference to any allotted, proposed or actual DTV operating facilities on channels 20, 21 or 22.

Class A/LPTV/TV Translator Protection

A study has been conducted using the provisions of Section 74.707 which indicates that the K21GC proposal will not create prohibited interference to other existing, authorized or proposed LPTV or Class A stations.

Response to Paragraph 14 - Environmental Protection Act

The proposed K21GC facilities were evaluated in terms of potential radiofrequency radiation exposure at ground level in accordance with OST Bulletin No. 65, "Evaluating Compliance With FCC-Specified Guidelines for Human Exposure to Radiofrequency Radiation."[1] The calculated power density at the base of the tower was calculated using the appropriate equation on Page 13 of the Bulletin. Using a greater than expected vertical relative field value of 0.15, a visual effective radiated power of 9.95 kilowatts and 10 percent aural power, the calculated power density at 2 meters above ground at the tower base will be 0.0129 mW/cm^2, or 3.77% of the recommended limit of 0.34 mW/cm^2 for channel 21 applicable to general population/uncontrolled exposure areas. Therefore, based on the responsibility threshold of 5%, the proposal will comply 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 effect in the event that workers or other authorized personnel enter the restricted area or climb the tower 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.

Finally, it is noted that this technical exhibit only addresses the potential for radiofrequency electromagnetic field exposure. All other aspects of the environmental

[1] See *Report and Order* in ET Docket 93-62, FCC 96-326, adopted August 1, 1996, 11 FCC Rcd 15123 (1997). See also *First Memorandum Opinion and Order*, ET Docket 93-62, FCC 96-487, adopted December 23, 1996, 11 FCC Rcd 17512 (1997), and *Second Memorandum Opinion and Order and Notice of Proposed Rulemaking*, ET Docket 93-62, FCC 97-303, adopted August 25, 1997.

processing analysis will be or already has been provided to the FCC by the tower owner as part of the tower registration process.

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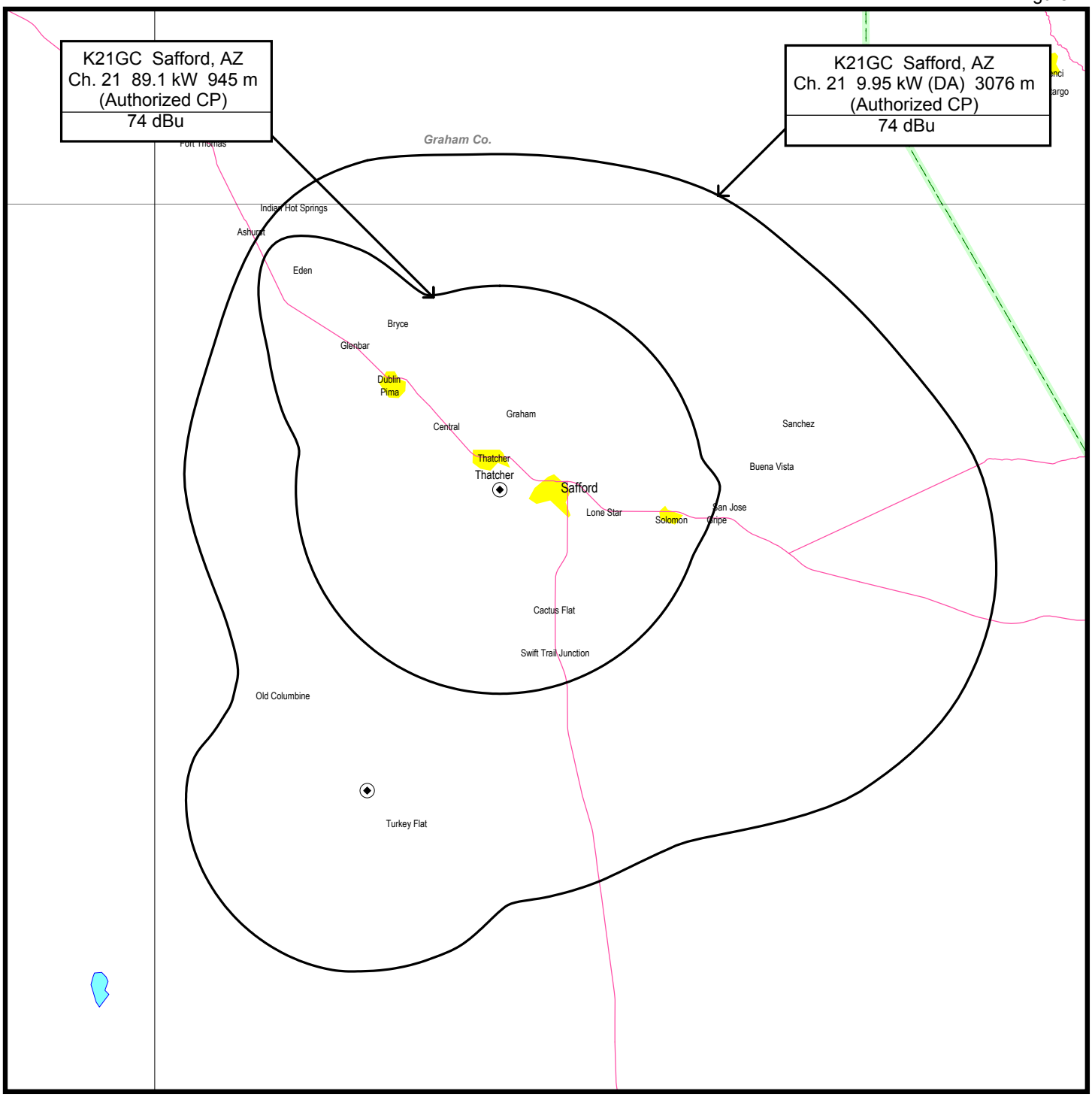
September 15, 2004

Figure 1



10 0 10 20 30 40 50 60

Kilometers

FCC PREDICTED 74 dBu CONTOURS

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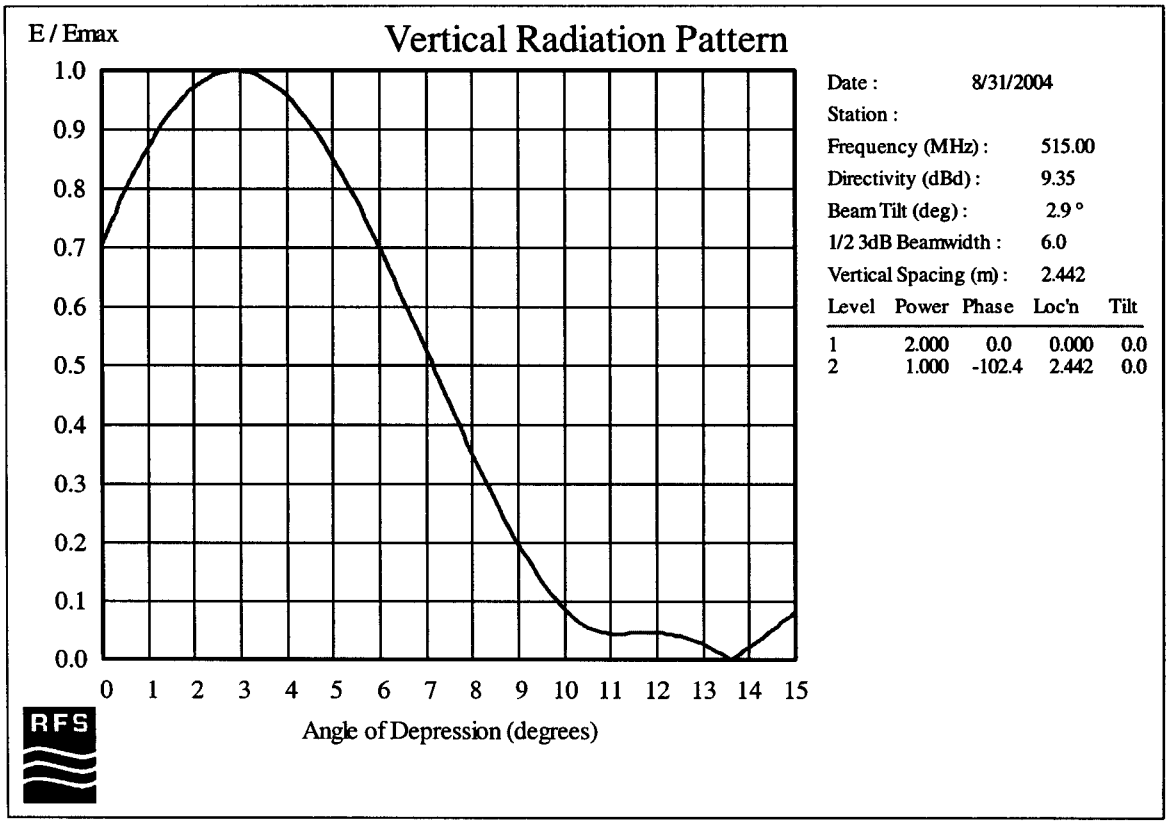
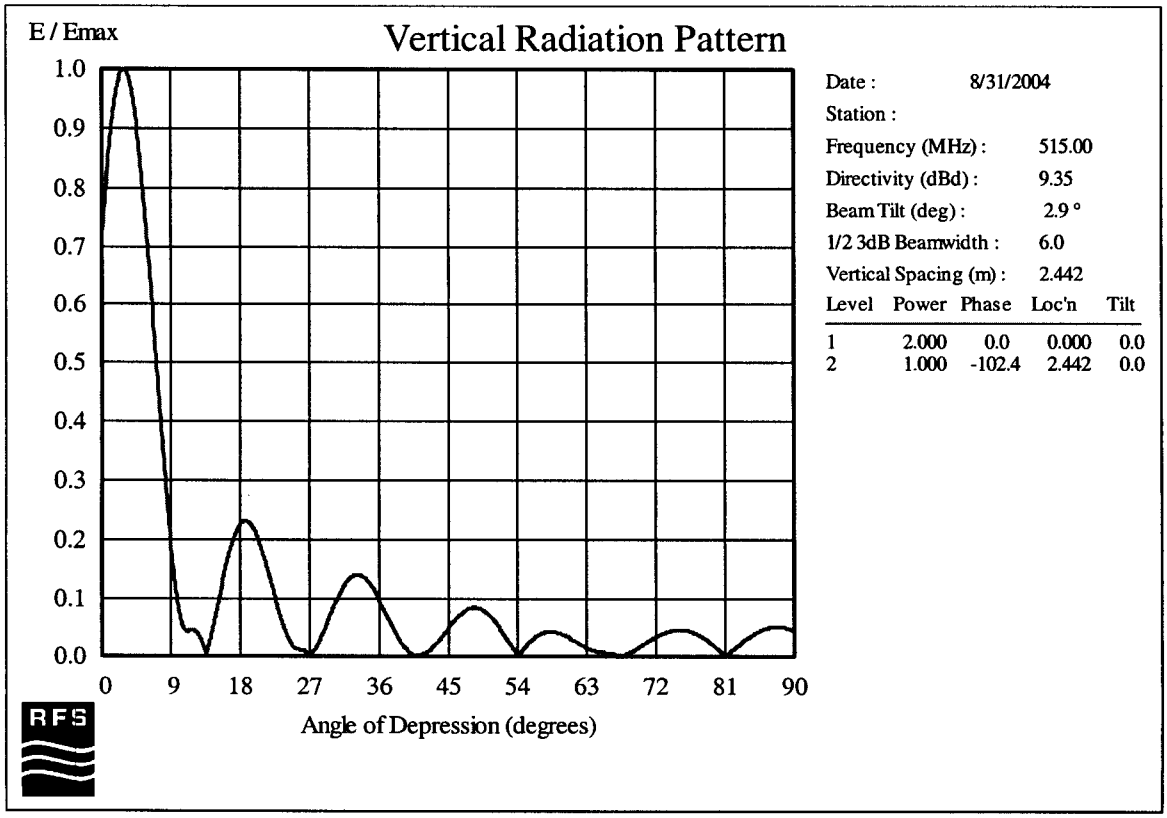


Ch.21, 8 bay, 3 degree beam tilt, 0-15 degree angle depression



Ch.21, 8 bay, 3 degree beam tilt, 0-90 degree angle depression