

TECHNICAL EXHIBIT  
DIGITAL FLASH-CUT APPLICATION FOR  
TV TRANSLATOR STATION K22EW (FACILITY ID 22272)  
MORA, NEW MEXICO  
CH 22 0.25 KW

Technical Narrative

This Technical Exhibit supports a flash-cut application for TV translator station K22EW. Station K22EW is licensed to operate on analog channel 22 with a non-directional antenna (visual) effective radiated power (ERP) of 1.23 kW and an antenna height above mean sea level (RCAMSL) of 2588 meters (BLTT-19970724JD).

Proposed Facilities

This application proposes digital operation on the current channel (22), with the same antenna, but with a correction to the site coordinates. Inspection of a topographical map indicates that the current transmitter site coordinates do not represent to actual location for the existing supporting structure. Therefore, the coordinates have been adjusted accordingly. The corrected transmitter site coordinates are (NAD27): 35-57-36 N, 105-21-12 W. An Andrew, model AL8 antenna, with a non-directional ERP of 0.25 kW and antenna RCAMSL of 2588 meters is proposed.

The existing 12 meter structure (40 feet) does not require registration as the FCC's TOWAIR program indicates there are no airports within 8 kilometers (5 miles).

Figure 1 is a map showing the licensed 74 dBu (analog) and proposed 51 dBu (digital) coverage contours. As can be seen on the map, there is common area where both contours overlap.

### Allocation Considerations

A study has been conducted to assure that the proposal will not create prohibited interference with other licensed, authorized or pending analog or digital TV, LPTV/translator and Class A TV stations. Using the procedures outlined in the FCC's OET-69 Bulletin, a 2 kilometer cell size resolution and 1990 U.S. Census, the proposal complies with the current FCC policy (i.e., less than 0.5% new interference caused to other pertinent assignments). If necessary, a waiver of the FCC rules is respectfully requested based on use of the procedures outlined in the FCC's OET-69 Bulletin to the remaining LPTV/translator stations.

The applicant recognizes the proposal is secondary to authorized full-service analog and DTV operations. The applicant understands that it must correct and/or eliminate prohibited interference that may result from its proposed operation.

### Radiofrequency Electromagnetic Field Exposure

The proposed K22EW facilities were evaluated in terms of potential radio frequency (RF) energy exposure at ground level to workers and the general public. The radiation center for the antenna is located 8 meters above ground level. The proposed ERP is 0.25 kW. Based on various downward angles and the Andrew AL8 vertical pattern (Figure 2), the calculated power density at a point 2 meters (6.6 feet) above ground level will not exceed 1% of the FCC's recommended limit of  $0.35 \text{ mW/cm}^2$  for channel 22 for an "uncontrolled" environment.

Access to the transmitting site will be restricted and appropriately marked with warning signs. In the event that workers or other authorized personnel enter restricted areas or climb the tower, 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.

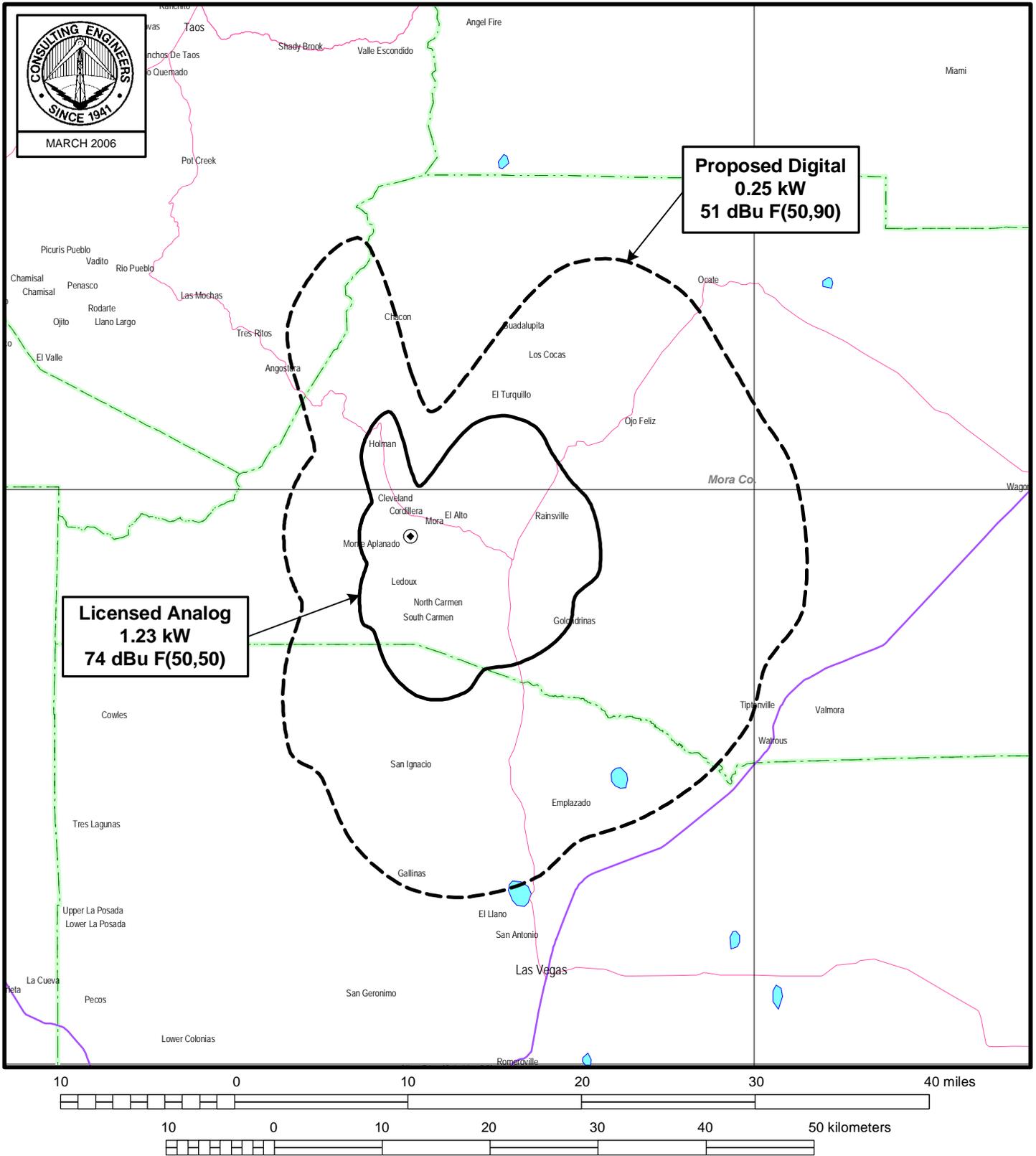
It is noted that this statement only addresses the potential for radiofrequency electromagnetic field exposure.



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March 14, 2006



# PREDICTED COVERAGE CONTOURS

STATION K22EW

MORA, NEW MEXICO

du Treil, Lundin & Rackley, Inc Sarasota, Florida

### ELEVATION PATTERN

Type:	<u>AL8</u>		Channel:	<u>22</u>
Directivity:	<u>Numeric</u>	<u>dBd</u>	Location:	<u>          </u>
Main Lobe:	<u>8.68</u>	<u>9.39</u>	Beam Tilt:	<u>-1.75</u>
Horizontal:	<u>7.30</u>	<u>8.63</u>	Polarization:	<u>Horizontal</u>

