

TECHNICAL EXHIBIT  
DIGITAL FLASH-CUT APPLICATION FOR  
TV TRANSLATOR STATION K22GE (FACILITY ID 125926)  
DULCE, NEW MEXICO  
CH 22 0.197 KW (DA)

Technical Narrative

This Technical Exhibit supports a flash-cut application for TV translator station K22GE. Station K22GE is licensed (BLTT-20020326ABE) to operate on analog channel 22 with a Scala PR-450U composite directional maximum (visual) effective radiated power (ERP) of 0.986 kW and an antenna height above mean sea level (RCAMSL) of 2745 meters.

Proposed Facilities

This application proposes digital operation on the current channel (22), at the current transmitter site and with the same antenna. The transmitter site coordinates remain (NAD27): 36-59-00 N, 106-58-12 W. A Scala PR-450 antenna, with a maximum ERP of 0.197 kW and antenna RCAMSL of 2745 meters is proposed.

Figure 1 is a map showing the licensed 74 dBu (analog) and proposed 51 dBu (digital) coverage contours. As shown on the map the licensed analog contour is completely encompassed by the proposed digital contour.

Results of the FCC's TOWAIR Program indicate that the existing 5 meter (16.4 foot) structure does not require registration. Figure 2 shows the results of the FCC's TOWAIR Program.

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 1 kilometer cell size resolution and 2000 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 K22GE facilities were evaluated in terms of potential radiofrequency radiation exposure at 2 meters above ground level in accordance with FCC Bulletin OET-65 (Edition 97-01). This Bulletin provides assistance in determining whether FCC-regulated transmitting facilities, operations or devices comply with limits for human exposure to radiofrequency (RF) electromagnetic fields.

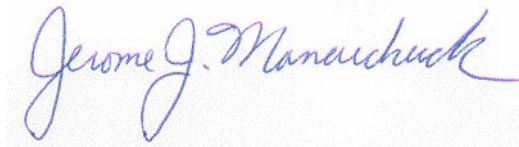
The calculated power density at 2 meters above ground level at the base of the tower was calculated using the appropriate equation contained in the Bulletin. Since the proposed antenna radiation center is only 4 meters above ground level and it appears that the terrain slopes upward toward the north which is in one of the main lobes of the antenna, calculations were made presuming a worst case vertical relative field of 1.0. Therefore, using a vertical relative field value of 1.0, a maximum ERP of 0.197 kilowatts, and an antenna center of radiation height above ground level of 4 meters, the calculated power density at two meters above ground level will exceed 100 percent of the Commission's recommended limit applicable to general population/uncontrolled exposure areas ( $0.347 \text{ mW/cm}^2$  for TV channel 22). Therefore, measurements will be made to show compliance.

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 to control access to the site. In the event that workers or other authorized personnel enter the

restricted area appropriate measures shall be taken to limit RF energy exposure. Such measures include limiting the exposure time, wearing protective clothing, reducing power to an acceptable level or termination of transmitter output power all together until workers leave the restricted area.

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 addressed by the tower owner.

If there are questions concerning the technical portion of this application, please contact the office of the undersigned.

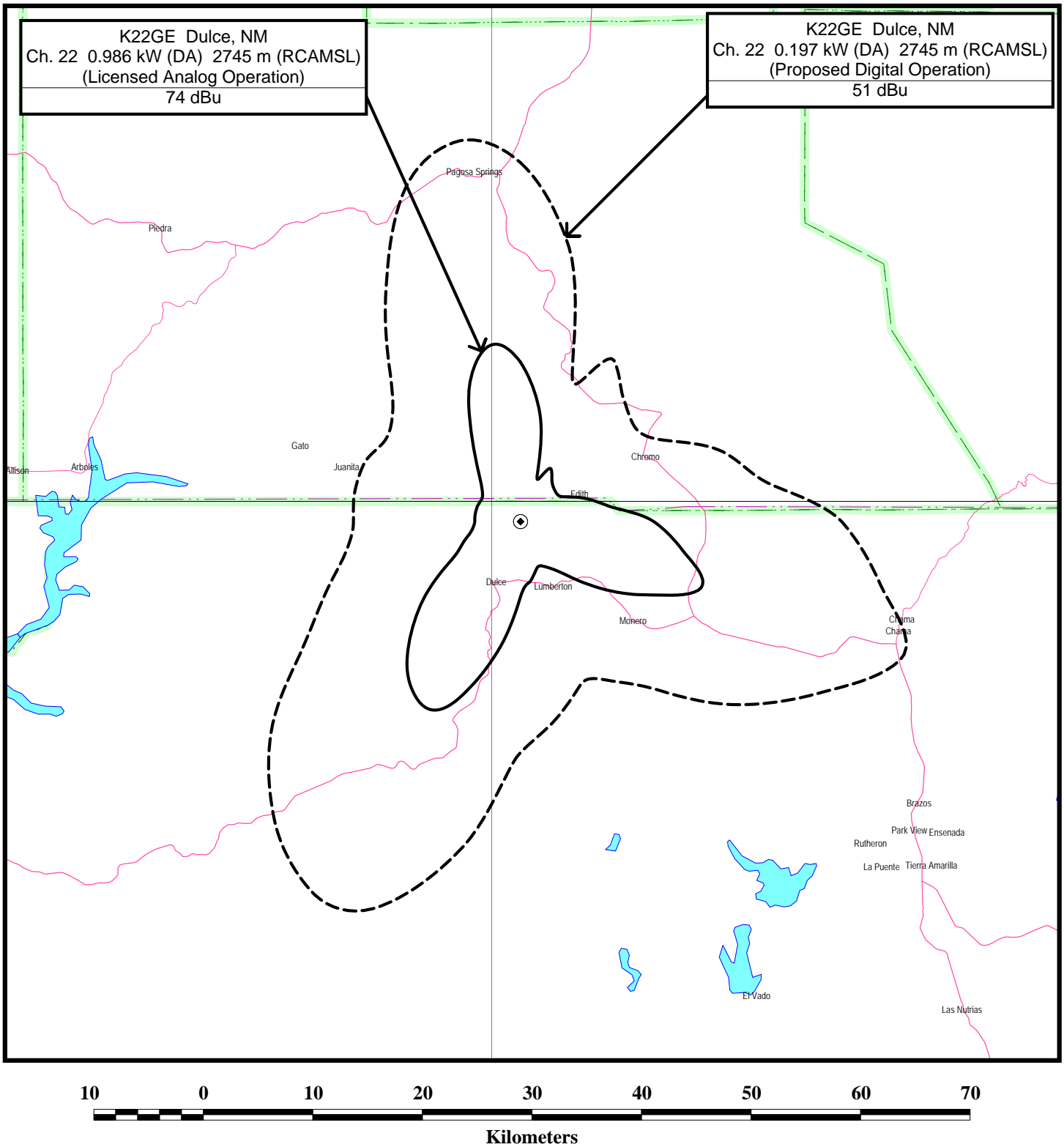


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Figure 1



## FCC PREDICTED COVERAGE CONTOURS

LPTV STATION K22GE  
DULCE, NEW MEXICO

CH 22 0.197 KW 2745 M (RCAMSL)

du Treil, Lundin & Rackley, Inc. Sarasota, Florida 34237

## 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

**Antenna Structures whose total height (AGL) is  $\leq$  6.1 meters (20 feet) do not require registration**

#### Your Specifications

##### NAD83 Coordinates

Latitude	36-59-00.0 north
Longitude	106-58-14.0 west

##### Measurements (Meters)

Overall Structure Height (AGL)	5
Support Structure Height (AGL)	5
Site Elevation (AMSL)	2741

#### Structure Type

TOWER - Free standing or Guyed Structure used for Communications Purposes

#### [Tower Construction Notifications](#)

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

CLOSE WINDOW