

TECHNICAL EXHIBIT  
KTVF ANALOG LOSS AREA FILL-IN TRANSLATOR  
FAIRBANKS, ALASKA  
CH 11 0.15 KW (MAX-DA)

Technical Exhibit

The technical exhibit supports an application for modification of a new analog loss area translator for KTVF. This translator will serve the Fairbanks area, which is considered an area based upon local knowledge has experienced loss of service when KTVF went from analog to digital service.

Summary of Proposed Facilities

Below is a tabulation of the proposed paired digital facility:

Channel:	11
Geographic Coordinates:	64° 48' 51" North Latitude 147° 41' 40" West Longitude
Antenna Structure Registration:	N/A
Overall Structure Height:	9 meters
Ground Elevation:	137 meters
Radiation Center:	146 meters AMSL 9 meters (30 feet) AGL
Antenna Type:	Scala HDCA-10 Array Cardioid - Horizontal Polarized 13 dB (power gain 20)
Antenna Major Lobe Orientation:	270° True
Transmitter Power Output:	0.01 kilowatt (10 watts)
Emissions Mask:	Stringent
Transmission Line:	LDF4-50A (7/8" Foam - 50 feet)
Maximum Effective Radiated Power:	0.15 kilowatt (150 watts)

Figure 1 is a map depicting the proposed translator's contour and the KTVF analog and digital contours.

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Allocation Considerations

A study has been conducted to assure that the proposal will not create prohibited interference with other post-transition 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, no prohibitive interference is predicted to be caused to any other station.

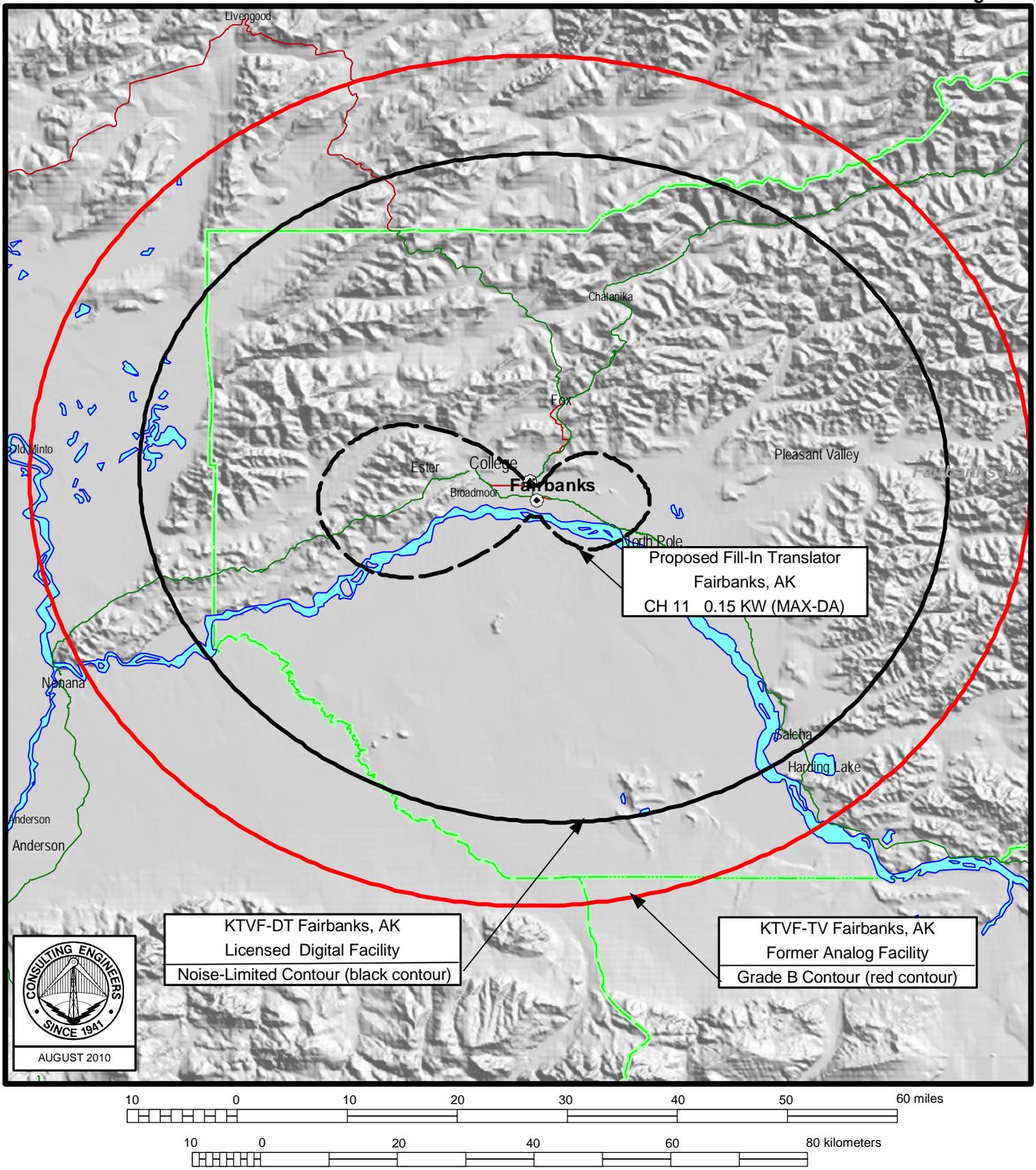
Radiofrequency Electromagnetic Field Exposure

The proposed 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 on a building rooftop approximately 10 meters above ground level. The proposed ERP of 0.15 kW is employed. A conservative relative field value of 0.25 was assumed for the Scala antenna's downward radiation. The calculated power density at ground level is 0.004 mW/cm<sup>2</sup>. This is less than 5% of the FCC's recommended limit of 0.2 mW/cm<sup>2</sup> for channel 11 for an "uncontrolled" environment.

Access to the building rooftop 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.

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.

Charles A. Cooper  
du Treil, Lundin & Rackley, Inc.  
201 Fletcher Avenue  
Sarasota, Florida 34237  
(941) 329-6000  
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# FCC PREDICTED COVERAGE CONTOURS

## FILL-IN TRANSLATOR KTVF FAIRBANKS, ALASKA

du Treil, Lundin & Rackley, Inc Sarasota, Florida