

## **U/D Considerations**

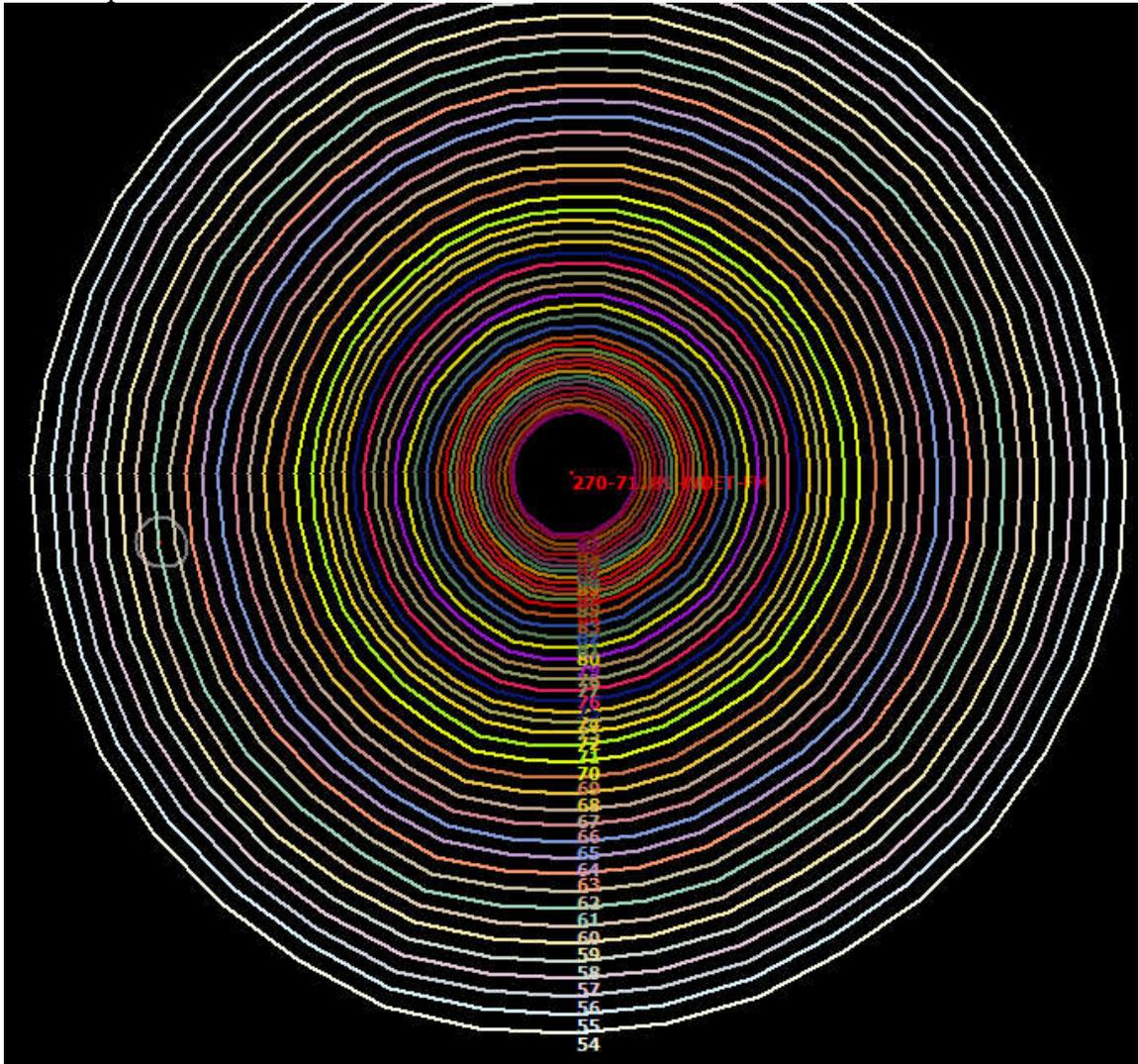
The proposed facility provides contour protection to all existing stations with the exception of facility ID 71189 (channel 270). This station is second adjacent to the proposed translator. A U/D study will show that no interference will be caused to this station.

The signal strength of facility ID 71189 at the proposed site is more than 61 dBu (see U/D Map exhibit below). Using a U/D ratio of 40 dB for second/third adjacent protection, the 101 dBu contour of the proposal was studied.

Attached below is freespace interference study using the freespace formula for calculating distance to the contours. At 7 watts the 101 dBu contour goes out 165 meters from the unoccupied transmitter bldg.

The nearest occupied structure is over 165 meters away. Due to the fact there are no occupied structures or four-lane roads within 165 meters of transmitter site this proposal fully protects both facility ID 71189. This application therefore fully meets the requirements of 74.1204(d) for a no-interference showing.

U/D Map - Small Red Dot on Left-Side Shows Transmitter Site at More Than 61 dBu



## Free Space Calculations

Select Contour Type:	<input type="radio"/> F(50,50) Service Contour -- FM and NTSC (analog) TV <input checked="" type="radio"/> F(50,10) Interfering Contour <input type="radio"/> F(50,90) Digital TV Service Contour
Select Channel Range: (not TV Virtual Channel)	<input checked="" type="radio"/> FM Radio or TV Transmit Channels 2-6 <input type="radio"/> TV Transmit Channels 7-13 <input type="radio"/> TV Transmit Channels 14-69
Find This:	<input type="radio"/> Field Strength, given a Distance (in km) <input checked="" type="radio"/> Distance, Given a Field Strength (in dBu) <input type="radio"/> FM ERP, given Distance and Field Strength [F(50,50) Service Contour]
<input type="text" value="0.007"/> ERP (kW)	<input type="text"/> Distance (km)
<input type="text" value="11"/> HAAT (meters)	<input type="text" value="101"/> Field (dBu)
<input type="button" value="Find Result"/>	<input type="button" value="Clear Form"/>
Results:	
<div style="border: 1px solid green; padding: 5px;"><p>Calculated Distance = <b>0.165 km</b></p><p>Free Space equation used to compute distance.</p></div>	

# 73.1204(d) Compliance

185 Meter Circle

## Legend

 185 Meter Circle

