

Channel 283C0 Section 73.315 Supplemental Coverage Showing City Grade Coverage of Murdo, SD

This Supplemental Showing is based upon the standards established in the FCC DA-10-1760 - Skytower Communications decision. A supplemental showing using the Longley-Rice median occurrence 70 dBu contour is used to show city coverage of Murdo, SD. The Longley-Rice contour was calculated using the standard settings established in OET Bulletin No. 69. Murdo is a small community with no large or high rise buildings. The surrounding terrain is primarily open farmland. The USGS land cover designation in the Murdo area is primarily cropland and herb range. Therefore it is believed Urban Clutter is not required. The contour was created using V-soft Probe Version 3.86. The specific Longley-Rice software settings are listed on the coverage map in the upper left hand corner of each map. The supplemental showing clearly establishes that the Longley-Rice contours along the radials that cross the corporate boundaries of Murdo are more than 10% greater than the FCC F(50,50) 70 dBu contours. 100% of Murdo is contained in the FCC F(50,50) 60 dBu contour.

A coverage map showing the FCC F(50,50) 70 dBu and 60 dBu contour as well as the Longley Rice 70 dBu median occurrence contour is included. A table showing the distances to the FCC 70 dBu contour and Longley-Rice median occurrence 70 dBu contour for the two radials that cross over Murdo is also included. The Longley-Rice 70 dBu median occurrence contour reaches 100 percent of the area and population of Murdo. Therefore, it is believed that the proposed Channel 283C0 modification is in compliance with the Section 73.315 community coverage rules.

CH 283C0

Latitude: 44-03-07 N
Longitude: 100-05-03 W
ERP: 100.00 kW
Channel: 283
Frequency: 104.5 MHz
AMSL Height: 883.8 m
Elevation: 621.8 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: Longley/Rice
Climate: Cont temperate
Conductivity: 0.0050
Dielec Const: 15.0
Refractivity: 311.0
Receiver Ht AG: 9.1 m
Receiver Gain: 0 dB
Time Variability: 50.0%
Sit. Variability: 50.0%
ITM Mode: Broadcast

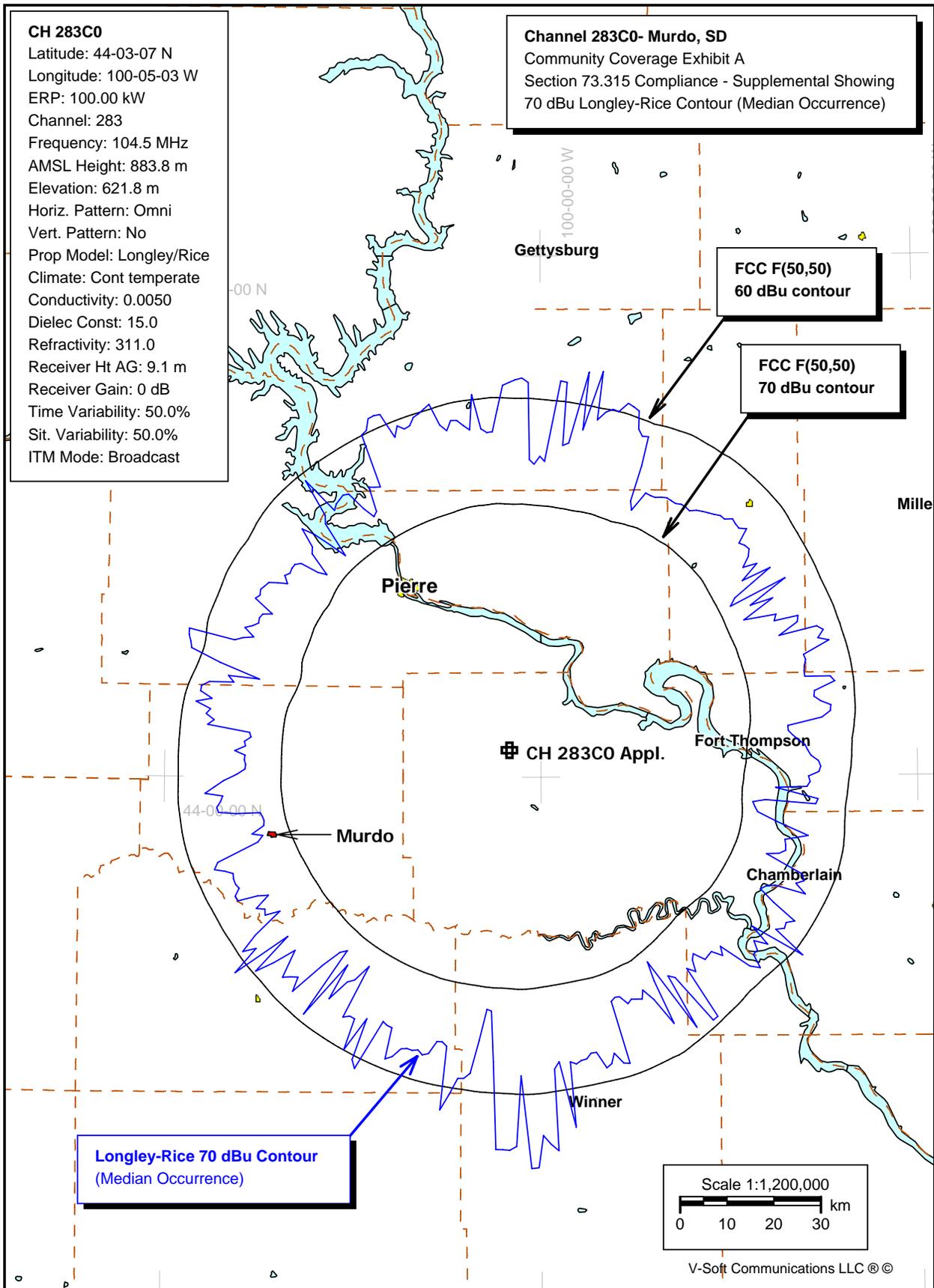
Channel 283C0- Murdo, SD

Community Coverage Exhibit A
Section 73.315 Compliance - Supplemental Showing
70 dBu Longley-Rice Contour (Median Occurrence)

**FCC F(50,50)
60 dBu contour**

**FCC F(50,50)
70 dBu contour**

**Longley-Rice 70 dBu Contour
(Median Occurrence)**



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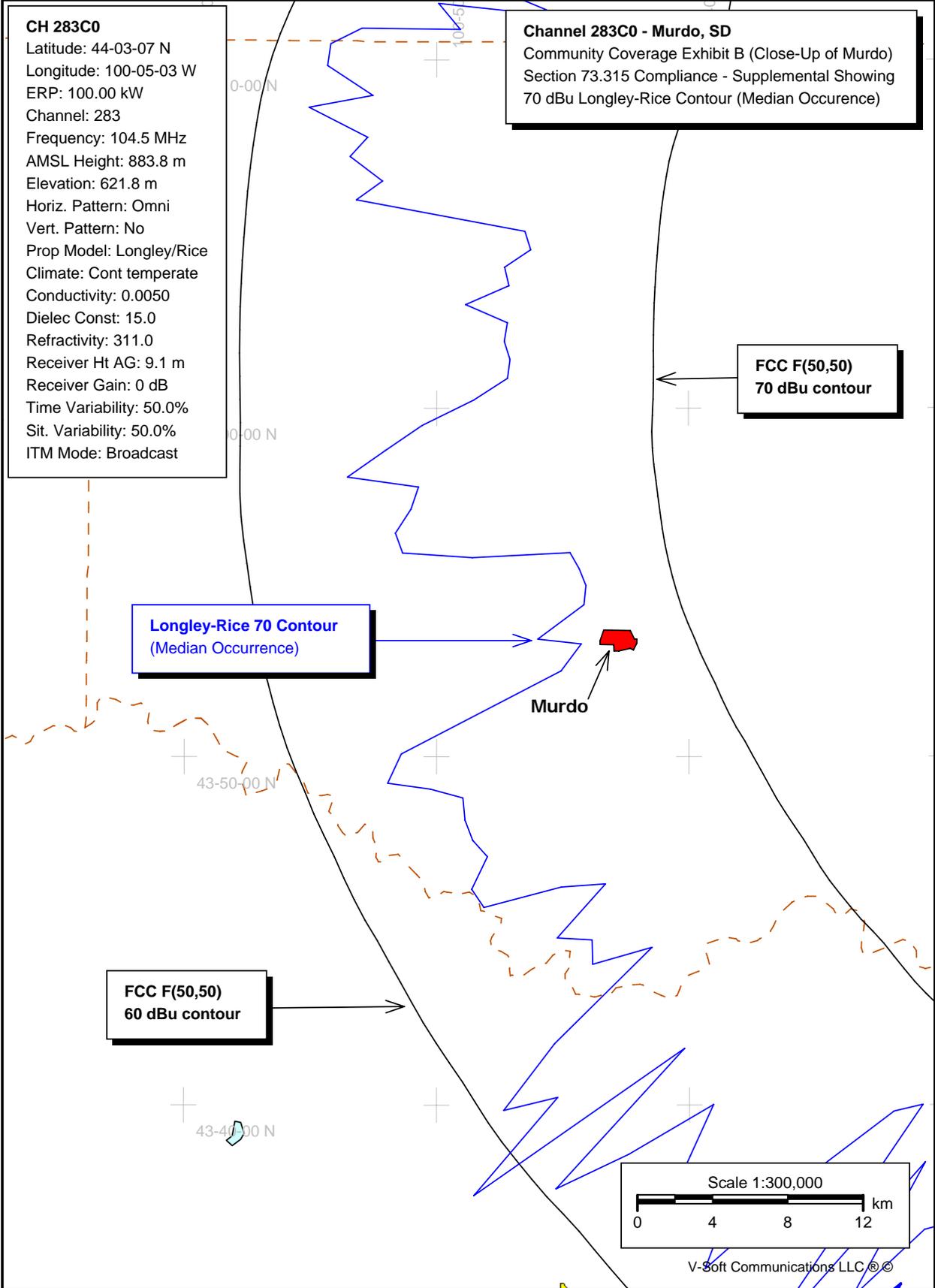
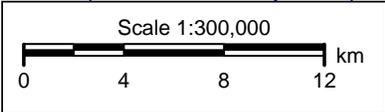
Channel 283C0 - Murdo, SD
Community Coverage Exhibit B (Close-Up of Murdo)
Section 73.315 Compliance - Supplemental Showing
70 dBu Longley-Rice Contour (Median Occurrence)

**FCC F(50,50)
70 dBu contour**

**Longley-Rice 70 Contour
(Median Occurrence)**

**FCC F(50,50)
60 dBu contour**

Murdo



Chanel 283C0 Supplemental Coverage Showing:
 Comparison of FCC F(50,50) 70 dBu contour distance
 vs.
 Longley-Rice 70 dBu contour*
 (2 radials which cross Murdo, SD are shown)

Site:	Murdo, SD Application				
Coordinates:	44-03-07 N ~ 100-05-03 W				
Freq:	104.500 MHz				
ERP:	100 kW				
HAAT:	318 m				
Bearing (degrees)	ERP (kW)	HAAT (m)	FCC 70 dBu Distance (km)	Longley-Rice 70 dBu Distance (km) *	Percentage Increase
250	100	297	49.9	56.4	13.02%
251	100	297	49.9	58.45	17.13%
Average	100	297	49.90	57.43	15.09%

* Longley-Rice median occurrence contour