

Television Channel 6 Protection

A study was conducted in accordance with 47CFR73.525 to determine the affected TV 6 stations. The results were included within the frequency study included as Exhibit 15 herein contained. WLUC-TV was determined to be the only station requiring further TV 6 contour protection study.

Figure 1 (below) displays the F[50,50] contours for WLUC-TV that intersected with the F[50,10] interfering contours as defined in 47CFR73.525(e)(1).

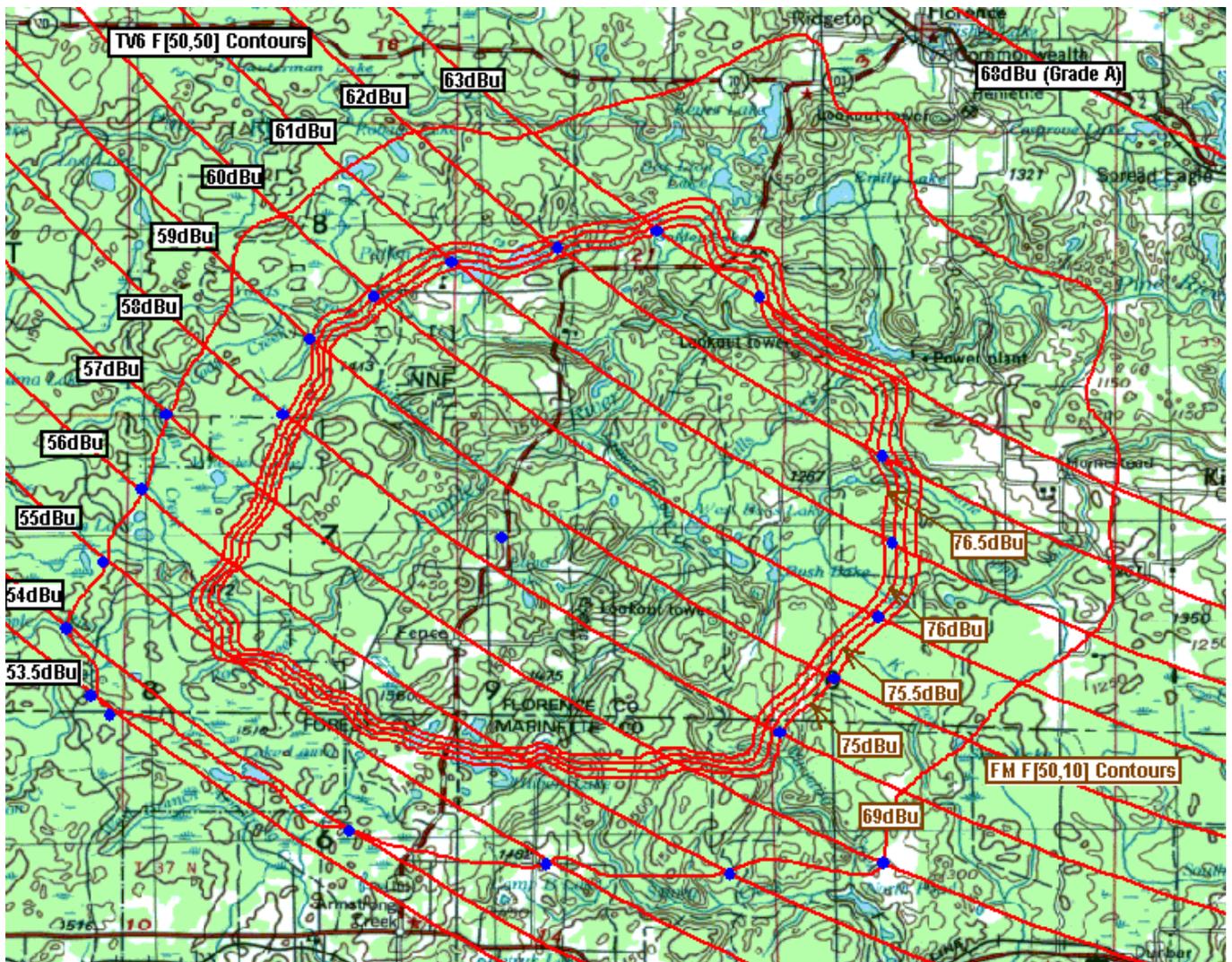


Exhibit 18B - Figure 1

The intersection of the pertinent contours are indicated by blue dots and the resulting TV6 interfering contour is bounded by them. The interrelated contours used for this map are detailed in Chart 1.

TV6 F[50,50] Contour	111 to 249 degees Azimuth		+110 to -110 degees Azimuth	
	U/D Ratio	CH 214 F[50,10] Contour	U/D Ratio	CH 214 F[50,10] Contour
53.5 dBu	15.5 dB	69 dBu		
54 dBu	15 dB	69 dBu		
55 dBu	14 dB	69 dBu		
56 dBu	13 dB	69 dBu		
57 dBu	12 dB	69 dBu		
58 dBu			17 dB	75 dBu
59 dBu			16 dB	75 dBu
60 dBu			15.5 dB	75.5 dBu
61 dBu			15 dB	76 dBu
62 dBu			14 dB	76 dBu
63 dBu			13.5 dB	76.5 dBu

Exhibit 18B –Chart 1

The resulting TV6 Interference contour area produced by the contour mapping software, which determined that the TV6 interference area covers 353.3 square kilometers, is displayed in Figure 2. There are no incorporated areas within the interference area. The proposed facility is located in Florence County, Wisconsin, which has no incorporated areas. Since there were no incorporated areas to subtract from the total county population, the population per square kilometer for unincorporated area is equal to the average population per square kilometer of the entire county.

The 2000 US Census data at <http://quickfacts.census.gov/qfd/states/55/55037.html> lists Florence County as having 10.4 persons per square mile. Since one square mile equals 2.5888 square kilometers, Florence County has 4.03 persons per square kilometer. Therefore, 300.1 square kilometers at 4.03 persons per square kilometer yields 1209 persons in the affected area in Florence County.

The interference area also extends into portions of two additional counties, which are Forest County, Wisconsin and Marinette County, Wisconsin. Calculations determined the average population per square kilometer in unincorporated areas of each county according to

47CRF73.525(e)(2)(i) through (iii) by subtracting the population of incorporated areas from the county population. Also, the area of each incorporated area was subtracted from total county area in determining the average. In Marinette County, 27 square kilometers at 8.32 persons

Florence County, WI				Affected Persons
City	Population	Area sq mi	Area sq km	
(no incorporated areas)	0	0	0	
Total Incorporated	0	0	0	
Total County	5,088	488.0	1263.4	
Total Unincorporated	5,088	488.0	1263.4	
Average Population	10.4 /sq mi unincorp.			
Average Population	4.03 /sq km unincorp.			
TV6 Interference area (sq km)			300.1	1209 persons

Marinette County, WI				Affected Persons
City	Population	Area sq mi	Area sq km	
Coleman	839	1.1	2.9	
Crivitz	996	1.5	3.9	
Marinette	11,895	7.9	20.5	
Niagra	1,999	299.0	774.1	
Peshtigo	3,154	3.2	8.3	
Pound	434	0.8	2.1	
Wausaukee	656	1.4	3.7	
Total Incorporated	19,973	315.0	815.4	
Total County	43,384	1402.0	3629.6	
Total Unincorporated	23,411	1087.0	2814.2	
Average Population	21.54 /sq mi unincorp.			
Average Population	8.32 /sq km unincorp.			
TV6 Interference area (sq km)			27	225 persons

Forest County, WI				Affected Persons
City	Population	Area sq mi	Area sq mi	
Crandon	1,958	6.2	15.9	
Total Incorporated	1,958	6.2	15.9	
Total County	10,024	1014.0	2625.1	
Total Unincorporated	8,066	1007.8	2609.2	
Average Population	8.00 /sq mi unincorp.			
Average Population	3.09 /sq km unincorp.			
TV6 Interference area (sq km)			26.2	81 persons

Total population in affected area 1514 persons

Exhibit 18B - Chart 2

per square kilometer yields 225 persons in that affected area. In Forest County, 26.2 square kilometers at 3.09 persons per square kilometer yields 81 persons in that affected area.

The entire TV6 interference area lies outside the TV6 Grade A contour, defined by 73.683 as 68 dBu F[50,50]. The proposed interference contours were affected by the 6 dB U/D adjustment for azimuths ranging from 110 degrees counterclockwise to 250 degrees in accordance with 47CFR73.525(1)(ii). That is also reflected in Chart 1.

According to the calculations, the proposed TV6 Interference area has the potential for affecting 1,514 persons. That falls well within the 3,000-person limit set by 47CFR73.525(c) and is therefore in compliance with requirements for TV6 interference.



Exhibit 18B - Figure 2