

**Exhibit #18**  
**Channel Six Television Protection**

Concerning the Amendment Application of  
VSS Catholic Communications  
KVSS  
Omaha, Nebraska  
BMPED20020425AAM

July 2002

Channel 205

0.085 kW (Horz.) – 1.5 kW (Vert.)

This study shows compliance with Section 73.525(b)(2) of the Commission's Rules relating to protection of channel-six TV stations from interference. Table A in Sec. 73.525 defines the cut-off distance for FM stations on channel 205 to be 225 km. There is only one channel-six television station within this cut-off distance. WOWTTV, Omaha, Nebraska is located at distance of 1.44 kilometers and at an azimuth of 261.3 degrees True North. WOWTTV operates with an HAAT toward the proposed facility of 433 meters. The television station transmits with an ERP of 100 kilowatts from a transmitter site having geographic coordinates at N. Lat. 41 18 40, W. Lng. 96 01 37.

Page #2 is a map depicting the proposed and existing FM 88.8 dBu interference contours. This is the only relevant interference contour. Since the proposed station is located within such a short distance from WOWTTV, the Commission's rules assume a protected signal level of 90 dBu at all points. The interference threshold U/D for the channel 205 station is -1.2 dB, therefore the interference signal contour becomes 88.8 dBu. The channel six television interference study power for the existing KVSS construction permit was determined to be 0.375 kW (0.1 kW H + 2.75 kW V/10). The proposed facility's study power was determined to be 0.235 kW (0.085 kW H + 1.5 kW V/10). A 6 dB receiver directivity credit was applied within the appropriate angles.

The proposed change in power and directional antenna of KVSS complies with Section 73.525(b)(2) in that "for each person predicted to receive new interference as a result of the change, existing predicted interference to two persons will be eliminated." The number of persons to receive new interference is 2,219, while existing interference will be eliminated for 4,645 persons. This is a loss/gain ratio of 2.1:1. The population within the interference contours was determined through the use of a computer program which extracts a population count based on population centroids defined by U.S. Census 2000 (PL-94-171) census block data. A detailed list of the population centroids in each gain and loss area is included on page #3.

Pages #4 and #5 are distance to contour tables (88.8 dBu and 94.5 dBu interference) of the proposed and existing KVSS facilities.

In conjunction with this application, VSS Catholic Communications has notified WOWTTV of these proposed changes to KVSS.

# Exhibit #18, Channel Six Protection

## KVSS.CP

BPED19990426IG  
Latitude: 41-18-43 N  
Longitude: 096-00-13 W  
Study ERP: 0.375 kW  
.1 kW H + 2.75 kW V/10  
AMSL Height: 440.0 m  
Horiz. Pattern: Directional  
21,487 in FM  
interference area

## WOWTTV

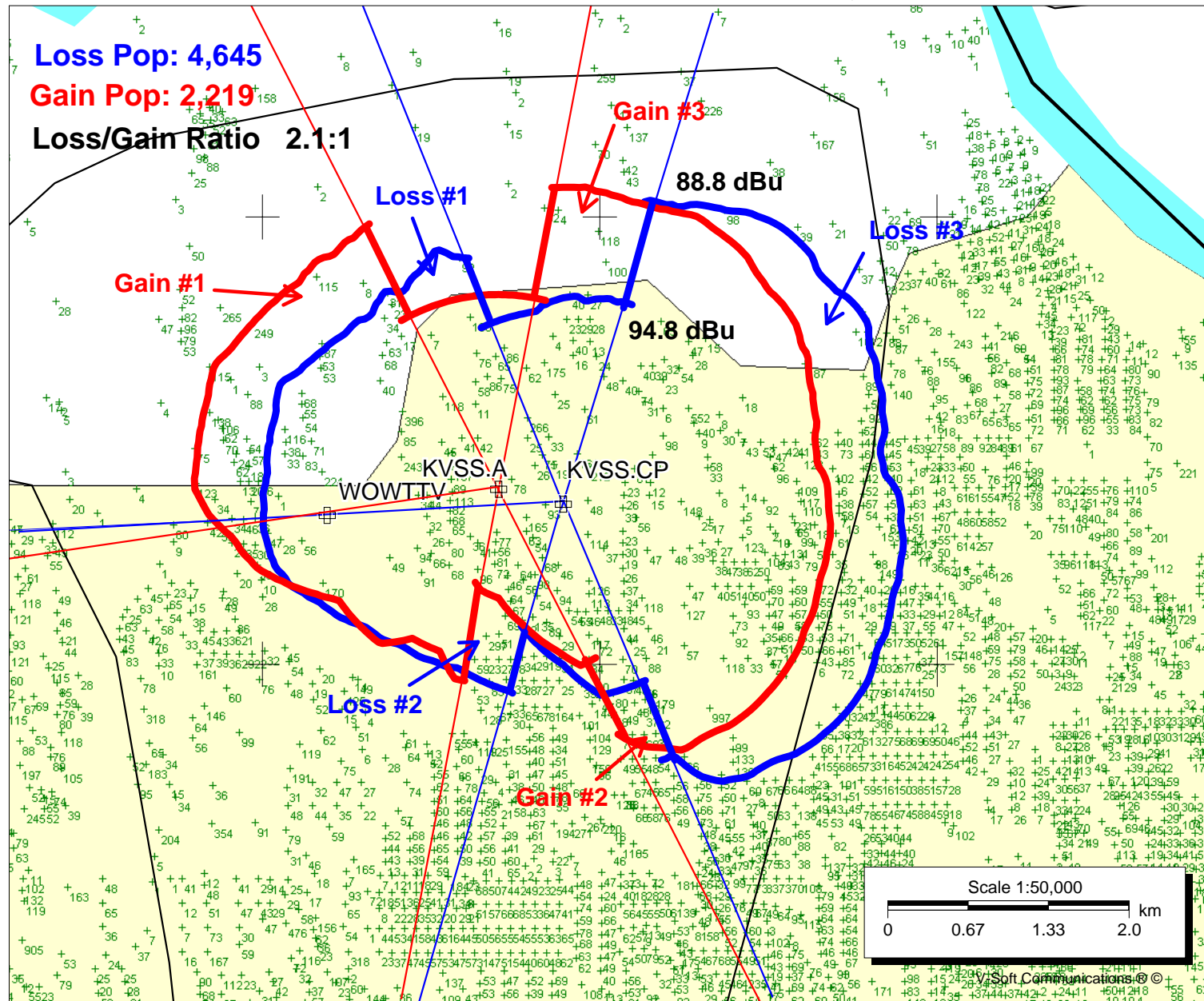
BLCT19831024KI  
Latitude: 41-18-40 N  
Longitude: 096-01-37 W  
Power: 100.00 kW  
Channel: 06+  
AMSL Height: 761.0 m  
Horiz. Pattern: Omni  
Vert. Pattern: Yes

## KVSS.A

BMPED20020425AAM  
Latitude: 41-18-47 N  
Longitude: 096-00-36 W  
Study ERP: 0.235 kW  
.085 kW H + 1.5 kW V/10  
AMSL Height: 485.0 m  
HAAT: 147.0 m  
Horiz. Pattern: Directional  
19,111 in FM  
interference area

**Doug Vernier**  
1600 Picturesque Drive  
Cedar Falls, Iowa 50613  
**Telecommunication Consultants**  
dvernier@tccl.com (319) 266-8402

July 23, 2002



### Population Centroids In Gain/Loss Areas

Gain #1	Gain #2	Gain #3	Loss #1	Loss #2	Loss #3
115	80	4	<u>92</u>	69	66 7
8	151	118		297	52 58
87	49	<u>100</u>	<b>92</b>	51	136 54
3	43			59	133 32
1	37	<b>222</b>		23	99 55
88	36			27	65 57
138	68	<b><u>2219</u></b> Total Gain		11	70 38
106	<u>70</u>			83	32 6
62				<u>133</u>	47 52
70	<b>534</b>			<b>753</b>	72 62
54					6 102
24					43 42
57					85 56
62					60 73
18					146 61
123					61 40
13					66 44
20					53 52
86					71 92
34					64 51
74					51 89
34					75 16
46					29 <u>98</u>
36					29
35					21 <b>3800</b>
30					18
<u>39</u>					51 <b><u>4645</u></b> Total Loss
<b>1463</b>					50
					55
					49
					21
					32
					40
					26
					2
					149
					35
					98
					16
					61
					153
					13
					62
Loss		4645			
Gain		2219			
Loss/Gain Ratio		2.1:1			

Doug Vernier Telecommunications Consultants  
KVSS.A, Vss Catholic Communications I, BMPED20020425AAM Amendment  
ERP = .235 kW  
Channel = 205

Azimuth Deg. T.	Ave. Elev. 3 to 16 km Meters AMSL	Effective Antenna Height Meters AAT	ERP (dBk)	F(50-10) Distance to 88.8 dBu Contour km	F(50-10) Distance to 94.8 dBu Contour km
0	349.2	135.8	-6.289	2.53	1.57
10	346.7	138.3	-6.289	2.55	1.58
20	338.9	146.1	-6.289	2.60	1.60
30	326.0	159.0	-6.289	2.69	1.63
40	308.0	177.0	-6.289	2.80	1.67
50	310.2	174.8	-6.289	2.79	1.67
60	306.0	179.0	-6.289	2.81	1.68
70	317.6	167.4	-6.289	2.75	1.65
80	330.1	154.9	-6.289	2.67	1.62
90	320.5	164.5	-6.289	2.73	1.65
100	312.9	172.1	-6.289	2.78	1.66
110	309.1	175.9	-6.289	2.80	1.67
120	306.0	179.0	-6.289	2.81	1.68
130	309.6	175.4	-6.289	2.79	1.67
140	328.3	156.7	-6.289	2.68	1.63
150	338.5	146.5	-7.061	2.46	1.61
160	352.4	132.6	-9.035	2.06	1.43
170	348.6	136.4	-11.036	1.77	1.13
180	326.1	158.9	-13.034	1.51	.90
190	335.2	149.8	-13.560	1.61	.85
200	336.8	148.2	-15.043	1.42	.71
210	336.5	148.5	-15.043	1.42	.71
220	338.9	146.1	-13.660	1.61	.84
230	339.5	145.5	-13.053	1.61	.90
240	342.9	142.1	-11.279	1.75	1.10
250	346.0	139.0	-9.276	2.05	1.39
260	352.7	132.3	-7.824	2.26	1.61
270	351.4	133.6	-6.289	2.52	1.57
280	351.1	133.9	-6.289	2.52	1.57
290	346.5	138.5	-6.289	2.55	1.58
300	356.9	128.1	-6.289	2.48	1.56
310	366.2	118.8	-6.289	2.43	1.53
320	368.6	116.4	-6.289	2.42	1.53
330	369.1	115.9	-6.289	2.41	1.53
340	372.2	112.8	-6.289	2.39	1.52
350	372.6	112.4	-6.289	2.39	1.52
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Ave. = 338.0 M		147.0 M			

Antenna Radiation Center AMSL = 485 M

NGDC 30 Arc Sec.

Geographic Coordinates:

N. Lat. 41 18 47

W. Lng. 96 00 36

Doug Vernier Telecommunications Consultants  
KVSS.C, Vss Catholic Communications I, BMPED20010329ACP  
ERP = .375 kW  
Channel = 205

Azimuth Deg. T.	Ave. Elev. 3 to 16 km Meters AMSL	Effective Antenna Height Meters AAT	ERP (dBk)	F(50-10) Distance to 88.8 dBu Contour km	F(50-10) Distance to 94.8 dBu Contour km
0	344.6	95.4	-4.260	2.56	1.72
10	341.9	98.1	-4.260	2.59	1.73
20	335.9	104.1	-4.260	2.65	1.76
30	317.4	122.6	-4.260	2.82	1.84
40	305.6	134.4	-4.260	2.91	1.88
50	310.2	129.8	-4.260	2.87	1.86
60	306.5	133.5	-4.260	2.90	1.87
70	319.2	120.8	-4.260	2.80	1.83
80	333.2	106.8	-4.260	2.68	1.78
90	320.0	120.0	-4.260	2.80	1.83
100	313.4	126.6	-4.260	2.85	1.85
110	309.6	130.4	-4.260	2.88	1.86
120	304.1	135.9	-4.260	2.92	1.88
130	305.9	134.1	-4.260	2.91	1.88
140	321.8	118.2	-4.260	2.78	1.82
150	334.0	106.0	-4.260	2.67	1.77
160	348.2	91.8	-6.155	2.24	1.61
170	353.9	86.1	-8.150	1.92	1.58
180	331.4	108.6	-9.660	1.87	1.33
190	335.3	104.7	-10.653	1.71	1.18
200	338.4	101.6	-11.671	1.56	1.05
210	336.8	103.2	-11.671	1.57	1.05
220	338.9	101.1	-10.653	1.69	1.18
230	340.5	99.5	-9.660	1.82	1.33
240	343.9	96.1	-8.150	1.99	1.58
250	347.0	93.0	-6.155	2.25	1.61
260	351.3	88.7	-4.260	2.48	1.68
270	350.3	89.7	-4.260	2.49	1.68
280	349.6	90.4	-4.260	2.50	1.69
290	345.4	94.6	-4.260	2.55	1.71
300	358.2	81.8	-4.260	2.41	1.63
310	366.8	73.2	-4.260	2.31	1.58
320	368.5	71.5	-4.260	2.30	1.57
330	368.0	72.0	-4.260	2.30	1.57
340	377.7	62.3	-4.260	2.20	1.50
350	368.6	71.4	-4.260	2.29	1.57

Ave. = 337.3 M 102.7 M

Antenna Radiation Center AMSL = 440 M  
NGDC 30 Arc Sec.

Geographic Coordinates:

N. Lat. 41 18 43

W. Lng. 96 00 13