

# Channel-Six TV Protection Study

KBJR-TV LI 06+ 2C Dom 100.000 kW 302 M HAAT VHY  
Superior WI 603.8 M COR AMSL  
Lat= 46 47 21.0, Lng= 92 06 51.0  
Kbjr License, Inc. BLCT20000517AEX  
Fac ID# 33658  
Dist.=178.13 km, Azi=38.9°, Rev Azi=220.0°

Direct line HAAT Grade B, 47 dBu= 108.66 km & Grade A= 58.82 km

Distance from reference to Grade B = 69.47 km

Cutoff Dist from Full Service or Class CA= 196

Maximum Co-located power= 17.8 kW

KBJR-TV Signal Contour at Reference location = 29.5 dBu

CH. 209, U/D ratio = 26.3 dB, Maximum FM signal = 73.3 dBu , 6 dB credit added

## TV/FM D to U values

47.0	73.3	55.0	72.3	63.0	73.9	71.0	78.7	79.0	85.0	87.0	91.6
48.0	73.0	56.0	72.4	64.0	74.4	72.0	79.5	80.0	85.8	88.0	92.4
49.0	72.6	57.0	72.5	65.0	74.8	73.0	80.2	81.0	86.6	89.0	93.3
50.0	72.3	58.0	72.6	66.0	75.4	74.0	81.0	82.0	87.4	90.0	94.2
51.0	72.2	59.0	72.8	67.0	76.0	75.0	81.8	83.0	88.2	91.0	94.2
52.0	72.2	60.0	73.0	68.0	76.6	76.0	82.6	84.0	89.0	92.0	94.2
53.0	72.1	61.0	73.3	69.0	77.3	77.0	83.4	85.0	89.9	93.0	94.2
54.0	72.2	62.0	73.5	70.0	78.0	78.0	84.2	86.0	90.7	94.0	94.2

Pensacola Christian College, Inc.  
KPCS(New) v. KBJR-TV

FMCommander Single Allocation Study - 10-07-2009 - FCC NGDC 30 Sec  
KPCS(New)'s Overlaps (In= 2.61 km, Out= 0.31 km)

KPCS(New) CH 209 C2

Lat= 45 33 10.0, Lng= 93 34 54.0

44.0 kW 42.4 M HAAT, 340.5 M COR

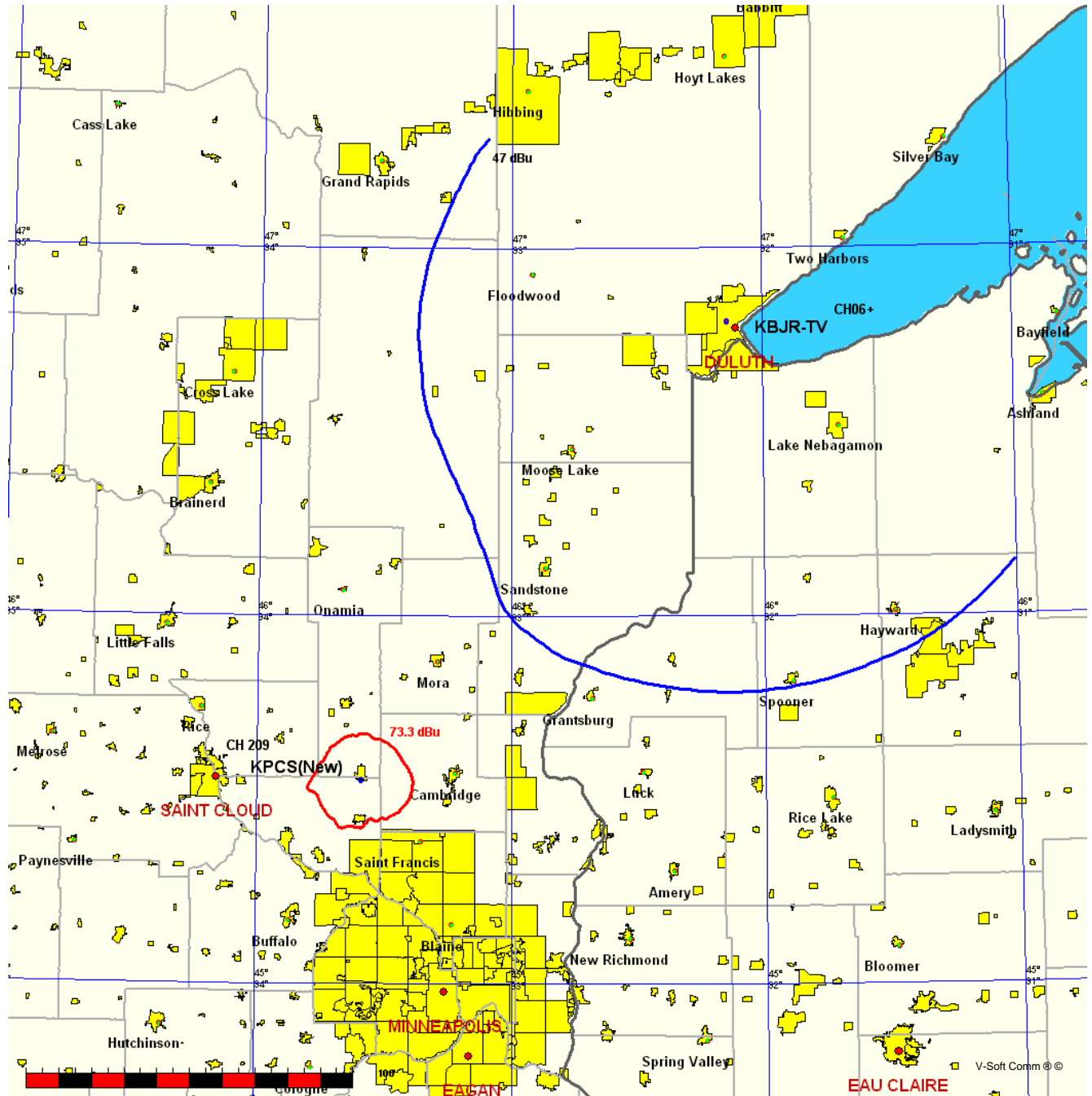
Intef. = 73.3 dBu

Prot. = 47 dBu

KBJR-TV CH 06+ 2C BLCT20000517AEX

Lat= 46 47 21.0, Lng= 92 06 51.0

100.0 kW 301.8 M HAAT, 603.8 M COR



10-07-2009 FCC NGDC 30 Sec Terrain Data

KBJR-TV BLCT20000517AEX

Channel = 06+2C

Max ERP = 100 kW

RCAMSL = 603.8 M

N. Lat. 46 47 21.0

W. Lng. 92 06 51.0

Protected

47 dBu

KPCS(New)

Channel = 209C2

Study Max ERP = 44 kW

RCAMSL = 340.5 M

N. Lat. 45 33 10.0

W. Lng. 93 34 54.0

Interfering

73.3 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
160.0	100.0000	0412.2	112.5	077.5	044.0000	0045.9	155.9	32.75	
161.0	100.0000	0412.2	112.5	077.6	044.0000	0045.9	153.6	33.16	
162.0	100.0000	0412.0	112.4	077.7	044.0000	0045.9	151.7	33.51	
163.0	100.0000	0411.4	112.4	077.8	044.0000	0045.9	149.8	33.86	
164.0	100.0000	0411.0	112.3	077.8	044.0000	0046.0	147.8	34.21	
165.0	100.0000	0410.9	112.3	077.9	044.0000	0046.0	145.9	34.57	
166.0	100.0000	0410.5	112.3	077.9	044.0000	0046.0	143.9	34.92	
167.0	100.0000	0410.0	112.3	078.0	044.0000	0046.0	142.0	35.28	
168.0	100.0000	0409.5	112.2	078.0	044.0000	0046.0	140.0	35.64	
169.0	100.0000	0409.4	112.2	078.0	044.0000	0046.0	138.1	36.01	
170.0	100.0000	0409.4	112.2	078.0	044.0000	0046.0	136.1	36.37	
171.0	100.0000	0409.5	112.2	078.0	044.0000	0046.0	134.2	36.73	
172.0	100.0000	0409.2	112.2	077.9	044.0000	0046.0	132.2	37.09	
173.0	100.0000	0409.0	112.2	077.9	044.0000	0046.0	130.3	37.46	
174.0	100.0000	0409.1	112.2	077.8	044.0000	0045.9	128.3	37.82	
175.0	100.0000	0409.2	112.2	077.7	044.0000	0045.9	126.4	38.18	
176.0	100.0000	0409.2	112.2	077.6	044.0000	0045.9	124.5	38.53	
177.0	100.0000	0409.1	112.2	077.5	044.0000	0045.9	122.5	38.89	
178.0	100.0000	0409.0	112.2	077.3	044.0000	0045.9	120.6	39.24	
179.0	100.0000	0409.2	112.2	077.2	044.0000	0045.9	118.7	39.60	
180.0	100.0000	0409.4	112.2	077.0	044.0000	0045.9	116.8	39.95	
181.0	100.0000	0409.4	112.2	076.8	044.0000	0045.9	114.9	40.30	
182.0	100.0000	0408.5	112.1	076.5	044.0000	0045.8	113.0	40.64	
183.0	100.0000	0407.8	112.1	076.2	044.0000	0045.7	111.1	40.99	
184.0	100.0000	0407.6	112.0	075.9	044.0000	0045.6	109.3	41.32	
185.0	100.0000	0407.6	112.0	075.6	044.0000	0045.4	107.4	41.66	
186.0	100.0000	0407.7	112.1	075.3	044.0000	0045.2	105.6	42.00	
187.0	100.0000	0407.5	112.0	074.9	044.0000	0045.0	103.8	42.33	
188.0	100.0000	0407.6	112.0	074.5	044.0000	0044.7	102.0	42.67	
189.0	100.0000	0407.8	112.1	074.1	044.0000	0044.4	100.2	43.01	
190.0	100.0000	0408.2	112.1	073.6	044.0000	0044.1	098.4	43.35	
191.0	100.0000	0408.2	112.1	073.1	044.0000	0043.8	096.6	43.69	
192.0	100.0000	0408.4	112.1	072.6	044.0000	0043.6	094.9	44.04	
193.0	100.0000	0408.9	112.2	072.0	044.0000	0043.4	093.2	44.40	
194.0	100.0000	0409.8	112.2	071.4	044.0000	0043.1	091.5	44.77	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
195.0	100.0000	0411.2	112.4	070.8	044.0000	0042.9	089.8	45.14
196.0	100.0000	0412.6	112.5	070.2	044.0000	0042.6	088.1	45.51
197.0	100.0000	0413.1	112.5	069.5	044.0000	0042.3	086.5	45.86
198.0	100.0000	0413.4	112.6	068.7	044.0000	0041.9	084.9	46.19
199.0	100.0000	0413.8	112.6	067.8	044.0000	0041.5	083.4	46.51
200.0	100.0000	0414.0	112.6	067.0	044.0000	0041.1	081.9	46.82
201.0	100.0000	0413.9	112.6	066.0	044.0000	0040.8	080.5	47.12
202.0	100.0000	0414.0	112.6	065.0	044.0000	0040.5	079.1	47.40
203.0	100.0000	0415.0	112.7	064.0	044.0000	0040.3	077.7	47.68
204.0	100.0000	0416.9	112.9	063.0	044.0000	0040.1	076.3	47.97
205.0	100.0000	0419.1	113.1	061.9	044.0000	0040.0	074.9	48.25
206.0	100.0000	0420.6	113.2	060.7	044.0000	0040.2	073.7	48.54
207.0	100.0000	0420.9	113.2	059.5	044.0000	0040.5	072.5	48.80
208.0	100.0000	0419.8	113.1	058.1	044.0000	0040.5	071.6	49.01
209.0	100.0000	0417.6	112.9	056.6	044.0000	0040.6	070.8	49.18
210.0	100.0000	0415.2	112.7	055.1	044.0000	0040.6	070.1	49.33
211.0	100.0000	0413.2	112.5	053.6	044.0000	0040.6	069.5	49.47
212.0	100.0000	0411.4	112.4	052.0	044.0000	0040.7	068.9	49.60
213.0	100.0000	0409.9	112.3	050.5	044.0000	0040.8	068.4	49.72
214.0	100.0000	0408.6	112.1	048.9	044.0000	0040.9	067.9	49.82
215.0	100.0000	0406.7	112.0	047.2	044.0000	0040.9	067.6	49.89
216.0	100.0000	0403.1	111.6	045.6	044.0000	0040.8	067.5	49.89
217.0	100.0000	0397.2	111.1	043.9	044.0000	0040.3	067.8	49.80
218.0	100.0000	0389.3	110.4	042.2	044.0000	0039.9	068.3	49.65
219.0	100.0000	0379.5	109.6	040.5	044.0000	0040.0	069.0	49.51
220.0	100.0000	0367.5	108.6	038.9	044.0000	0040.3	069.9	49.33
221.0	100.0000	0353.2	107.5	037.4	044.0000	0040.2	071.1	49.09
222.0	100.0000	0337.7	106.4	036.0	044.0000	0039.9	072.3	48.79
223.0	100.0000	0322.1	105.3	034.7	044.0000	0039.5	073.7	48.49
224.0	100.0000	0307.5	104.2	033.4	044.0000	0039.3	075.0	48.17
225.0	100.0000	0294.9	103.1	032.2	044.0000	0039.0	076.4	47.86
226.0	100.0000	0285.6	102.3	031.1	044.0000	0038.5	077.6	47.57
227.0	100.0000	0278.3	101.7	029.9	044.0000	0038.2	078.7	47.32
228.0	100.0000	0271.6	101.0	028.9	044.0000	0038.4	079.9	47.09
229.0	100.0000	0264.7	100.4	027.8	044.0000	0038.7	081.1	46.85
230.0	100.0000	0257.7	099.7	026.9	044.0000	0039.0	082.4	46.59
231.0	100.0000	0250.8	099.0	026.0	044.0000	0039.1	083.7	46.31
232.0	100.0000	0244.5	098.4	025.1	044.0000	0039.0	085.0	46.02
233.0	100.0000	0239.0	097.9	024.2	044.0000	0038.7	086.2	45.72
234.0	100.0000	0234.4	097.5	023.4	044.0000	0038.2	087.4	45.42
235.0	100.0000	0230.9	097.1	022.5	044.0000	0037.8	088.6	45.14
236.0	100.0000	0227.9	096.8	021.7	044.0000	0037.4	089.8	44.87
237.0	100.0000	0225.2	096.6	020.9	044.0000	0037.0	091.0	44.59
238.0	100.0000	0223.1	096.4	020.2	044.0000	0036.6	092.1	44.32
239.0	100.0000	0221.2	096.2	019.4	044.0000	0036.2	093.3	44.05
240.0	100.0000	0219.6	096.0	018.7	044.0000	0036.0	094.5	43.79
241.0	100.0000	0218.4	095.9	018.0	044.0000	0035.9	095.7	43.54
242.0	100.0000	0217.4	095.8	017.3	044.0000	0035.8	096.9	43.29
243.0	100.0000	0216.6	095.7	016.7	044.0000	0035.9	098.2	43.05
244.0	100.0000	0215.9	095.7	016.0	044.0000	0036.2	099.4	42.80
245.0	100.0000	0215.3	095.6	015.4	044.0000	0036.5	100.7	42.56

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
246.0	100.0000	0214.9	095.6	014.8	044.0000	0036.9	102.0	42.33
247.0	100.0000	0214.7	095.5	014.3	044.0000	0037.5	103.4	42.09
248.0	100.0000	0214.6	095.5	013.7	044.0000	0038.0	104.7	41.85
249.0	100.0000	0214.9	095.6	013.2	044.0000	0038.5	106.0	41.61
250.0	100.0000	0215.3	095.6	012.7	044.0000	0039.0	107.4	41.37
251.0	100.0000	0215.8	095.6	012.2	044.0000	0039.4	108.8	41.13
252.0	100.0000	0215.9	095.7	011.7	044.0000	0039.7	110.2	40.87
253.0	100.0000	0215.6	095.6	011.3	044.0000	0040.0	111.7	40.61
254.0	100.0000	0215.1	095.6	010.9	044.0000	0040.2	113.2	40.33
255.0	100.0000	0214.5	095.5	010.6	044.0000	0040.3	114.7	40.05
256.0	100.0000	0213.9	095.5	010.2	044.0000	0040.5	116.3	39.77
257.0	100.0000	0212.7	095.3	010.0	044.0000	0040.6	117.8	39.48
258.0	100.0000	0210.8	095.2	009.7	044.0000	0040.6	119.4	39.18
259.0	100.0000	0208.6	094.9	009.5	044.0000	0040.7	121.0	38.88
260.0	100.0000	0206.3	094.7	009.4	044.0000	0040.7	122.7	38.58
261.0	100.0000	0204.9	094.6	009.2	044.0000	0040.8	124.3	38.28
262.0	100.0000	0204.1	094.5	009.0	044.0000	0040.8	125.9	37.99
263.0	100.0000	0203.3	094.4	008.8	044.0000	0040.9	127.5	37.70
264.0	100.0000	0202.7	094.4	008.6	044.0000	0040.9	129.1	37.40
265.0	100.0000	0202.5	094.3	008.4	044.0000	0041.0	130.7	37.10
266.0	100.0000	0202.7	094.4	008.3	044.0000	0041.0	132.3	36.81
267.0	100.0000	0202.9	094.4	008.1	044.0000	0041.0	133.9	36.51
268.0	100.0000	0202.3	094.3	008.0	044.0000	0041.1	135.5	36.21
269.0	100.0000	0201.4	094.2	007.9	044.0000	0041.1	137.1	35.90
270.0	100.0000	0200.6	094.2	007.8	044.0000	0041.1	138.8	35.60
271.0	100.0000	0199.7	094.1	007.8	044.0000	0041.1	140.4	35.30
272.0	100.0000	0198.6	094.0	007.7	044.0000	0041.1	142.1	35.00
273.0	100.0000	0197.6	093.9	007.7	044.0000	0041.1	143.7	34.69
274.0	100.0000	0196.4	093.7	007.7	044.0000	0041.1	145.3	34.39
275.0	100.0000	0195.0	093.6	007.7	044.0000	0041.1	147.0	34.09
276.0	100.0000	0193.6	093.4	007.7	044.0000	0041.1	148.6	33.80
277.0	100.0000	0192.3	093.3	007.8	044.0000	0041.1	150.2	33.50
278.0	100.0000	0191.2	093.2	007.8	044.0000	0041.1	151.9	33.21
279.0	100.0000	0190.0	093.1	007.8	044.0000	0041.1	153.5	32.92
280.0	100.0000	0300.3	103.6	004.0	044.0000	0041.7	155.9	32.53