

Channel Six TV Protection Study

WITI 06 100.000kW ERP 502.0M COR AMSL 305.0M HAAT Lat. 430526 Lon. 875350
 Prop 217 4.000kW ERP 335.0M COR AMSL 60.0M HAAT Lat. 422833 Lon. 882503

Distance from TV to FM 80.4723km Azi 31.9degr Rev Azi 211.9 degr
 Cutoff radius for channel 217 is 174 km

The FM horizontal polarization component is 4.000 kW,
 and the area of just perceptible interference does not intersect a city of 50k,
 so the effective ERP is (Pv/40+Ph) 4.1000kW

The TV6 signal strength at the FM transmit site is 56.3 dBu
 This strength is outside the 68 dBu Grade A contour,
 allowing a 6 dB bonus to be applied to the allowable FM signal
 to F centroids (centroids in the angles between the FM station and the TV station)

TV Contour	Undesired/Desired Ratio	Total	Directional Total
47	29.1	76.0	82.0

Ident.	Lat.	Lon.	Dist	Angle	TV6 dBu	Max FM	FM dBu	FM Ovr	Count	I/O	SubTot
WI176544	422942	882538	2.3	339	56.87	79.85F	94.99	15.14	2	In	2
WI176543	423036	882528	3.8	352	57.51	79.77F	84.62	4.86	12	In	14
WI176521	423000	882716	4.1	312	56.51	79.91S	82.53	2.62	15	In	29
WI176519	422952	882640	3.3	318	56.62	79.89S	87.12	7.22	2	In	31
WI176518	422950	882612	2.8	326	56.76	79.87F	91.21	11.33	4	In	35
WI176517	423038	882616	4.2	337	57.26	79.80F	83.95	4.15	16	In	51
WI176516	423023	882650	4.2	324	56.90	79.85F	83.96	4.11	13	In	64
WI176514	423108	882651	5.4	333	57.37	79.78F	79.98	0.20	7	In	71
WI176513	423035	882720	4.9	320	56.86	79.86S	80.39	0.53	10	In	81
WI176494	423138	882559	5.8	347	57.99	79.73F	77.39	-2.34	29	Out	81
WI175920	422942	881958	7.3	73	58.62	79.75F	78.02	-1.72	24	Out	81
WI175919	422943	881940	7.7	74	58.71	79.76F	77.00	-2.75	75	Out	81
WI175918	422952	881945	7.7	72	58.80	79.77F	77.23	-2.54	15	Out	81
WI175917	422947	881945	7.6	72	58.75	79.76F	77.31	-2.46	12	Out	81
WI175916	422947	881940	7.7	73	58.77	79.76F	77.01	-2.75	21	Out	81
WI175907	422952	881935	7.9	72	58.84	79.77F	76.78	-2.99	17	Out	81
WI175906	422952	881941	7.8	72	58.82	79.77F	77.02	-2.75	28	Out	81
WI175905	422955	881941	7.8	71	58.86	79.78F	77.04	-2.73	28	Out	81
WI175904	422955	881945	7.7	71	58.84	79.77F	77.25	-2.52	9	Out	81
WI175903	423008	881945	7.8	68	58.98	79.80F	77.42	-2.37	5	Out	81
WI175902	423002	881945	7.8	69	58.91	79.78F	77.38	-2.41	20	Out	81
WI175901	422959	881941	7.8	70	58.90	79.78F	77.07	-2.71	28	Out	81
WI175898	423011	881941	8.0	68	59.04	79.81F	77.14	-2.67	39	Out	81
WI175897	423009	881946	7.8	68	59.00	79.80F	77.40	-2.40	21	Out	81
WI175896	423016	881945	7.9	66	59.07	79.81F	77.44	-2.38	24	Out	81
WI175895	423016	881941	8.0	67	59.09	79.82F	77.14	-2.68	28	Out	81
WI175894	423023	881938	8.2	65	59.19	79.84F	76.97	-2.87	134	Out	81
WI175890	422952	881948	7.6	71	58.78	79.76F	77.47	-2.30	27	Out	81
WI175889	422955	881953	7.5	70	58.79	79.77F	77.76	-2.01	158	Out	81
WI175886	423002	881959	7.5	69	58.84	79.77F	78.09	-1.68	60	Out	81
WI175884	422942	882011	7.0	72	58.56	79.74F	78.80	-0.94	3	Out	81
WI175883	422945	882017	6.9	71	58.57	79.74F	79.14	-0.60	20	Out	81
WI175882	422950	882011	7.1	70	58.65	79.75F	78.81	-0.94	69	Out	81
WI175881	423000	882017	7.1	68	58.74	79.76F	79.19	-0.57	75	Out	81
WI175880	423009	882009	7.3	66	58.89	79.78F	78.69	-1.09	188	Out	81
WI175879	423030	881952	8.0	63	59.20	79.84F	77.38	-2.46	59	Out	81
WI174553	423044	882008	7.9	59	59.29	79.87F	78.15	-1.72	5	Out	81
WI174552	423055	882017	7.9	56	59.37	79.89F	78.38	-1.51	3	Out	81
WI174551	423050	881949	8.3	59	59.45	79.91F	77.19	-2.73	64	Out	81
WI174545	422950	882131	5.4	64	58.26	79.73F	84.24	4.51	41	In	122
WI174544	423027	882118	6.2	55	58.75	79.76F	82.54	2.78	69	In	191
WI174542	423052	882103	7.0	52	59.10	79.82F	80.53	0.71	8	In	199
WI174541	423100	882033	7.7	54	59.35	79.88F	78.89	-0.99	2	Out	199
WI174540	423048	882021	7.7	57	59.27	79.86F	78.71	-1.15	6	Out	199
WI174538	423033	881956	7.9	62	59.22	79.85F	77.53	-2.32	7	Out	199

WI174514	422949	882510	2.4	356	57.10	79.82F	93.03	13.21	5	In	204
WI174513	423033	882504	3.7	360	57.61	79.76F	85.03	5.28	4	In	208
WI174511	423034	882414	3.9	17	57.89	79.74F	84.72	4.98	4	In	212
WI174510	423007	882356	3.3	28	57.69	79.75F	88.66	8.91	28	In	240
WI174509	422955	882303	3.7	47	57.85	79.74F	90.44	10.71	10	In	250
WI174508	423042	882225	5.4	42	58.56	79.74F	83.08	3.34	46	In	296
WI174505	423134	882304	6.2	26	58.93	79.79F	77.54	-2.25	2	Out	296
WI174503	423129	882145	7.1	40	59.30	79.87F	77.50	-2.37	11	Out	296
WI174502	423122	882203	6.6	38	59.12	79.83F	78.15	-1.68	4	Out	296
WI174501	423104	882227	5.9	37	58.80	79.77F	80.12	0.35	13	In	309
WI174500	423054	882309	5.1	31	58.46	79.74F	81.55	1.81	6	In	315
WI174499	423113	882353	5.2	18	58.43	79.73F	79.86	0.12	4	In	319
IL223696	422826	882024	6.4	92	57.62	79.76F	77.11	-2.65	5	Out	319
IL223695	422803	882041	6.0	99	57.27	79.80F	77.16	-2.64	18	Out	319
IL223694	422827	882102	5.5	92	57.45	79.77F	79.78	0.00	1	In	320
IL223693	422850	882042	6.0	85	57.82	79.74F	79.89	0.15	16	In	336
IL223692	422918	882016	6.7	78	58.26	79.73F	79.00	-0.73	8	Out	336
IL223691	422932	882045	6.2	73	58.28	79.73F	81.04	1.31	5	In	341
IL223506	422808	882503	0.8	179	56.02	74.00	104.57	30.57	44	In	385
IL223505	422820	882520	0.6	224	56.06	73.99	106.12	32.13	23	In	408
IL223504	422904	882414	1.5	49	56.90	79.85F	109.49	29.64	12	In	420
IL223503	422920	882403	2.0	43	57.14	79.81F	100.10	20.29	11	In	431
IL223498	422516	882237	6.9	151	54.80	74.17	71.96	-2.20	15	Out	431
IL223497	422526	882412	5.9	169	54.47	74.21	72.33	-1.89	51	Out	431
IL223496	422530	882304	6.3	154	54.84	74.16	73.28	-0.89	8	Out	431
IL223492	422638	882306	4.4	143	55.61	74.06	79.37	5.31	27	In	458
IL223491	422639	882416	3.7	163	55.27	74.11	80.90	6.79	13	In	471
IL223490	422755	882335	2.3	120	56.34	79.94S	91.09	11.14	43	In	514
IL223489	422801	882152	4.5	103	56.91	79.85S	82.14	2.29	15	In	529
IL223488	422830	882201	4.2	91	57.20	79.80F	84.76	4.96	18	In	547
IL223487	422902	882310	2.7	71	57.21	79.80F	95.04	15.24	2	In	549
IL223486	422835	882344	1.8	88	56.74	79.88F	99.47	19.59	31	In	580
IL223485	422940	882437	2.2	16	57.17	79.81F	95.04	15.23	4	In	584
IL223484	422927	882343	2.5	47	57.32	79.79F	97.51	17.72	37	In	621
IL223483	422927	882201	4.5	68	57.85	79.74F	87.20	7.46	9	In	630
IL223482	422902	882201	4.3	78	57.57	79.76F	86.92	7.16	11	In	641
IL223480	422806	882533	1.1	220	55.84	74.02	100.71	26.69	105	In	746
IL223479	422819	882524	0.7	228	56.03	74.00	104.60	30.61	28	In	774
IL223478	422819	882531	0.8	235	56.00	74.00	103.40	29.40	53	In	827
IL223477	422819	882539	0.9	242	55.95	74.01	102.12	28.11	46	In	873
IL223476	422826	882511	0.3	221	56.18	73.97	112.62	38.66	5	In	878
IL223475	422850	882519	0.6	327	56.41	79.93F	115.18	35.25	50	In	928
IL223474	422857	882612	1.7	295	56.19	79.97S	92.52	12.55	10	In	938
IL223473	422820	882657	2.6	261	55.54	74.07	79.86	5.79	38	In	976
IL223471	422807	882756	4.0	258	55.07	74.14	71.76	-2.37	13	Out	976
IL223470	422849	882759	4.0	277	55.51	74.07	73.60	-0.47	4	Out	976
IL223466	422918	882705	3.1	296	56.12	79.98S	82.20	2.22	33	In	1009
IL223465	422926	882610	2.2	317	56.51	79.91S	94.05	14.14	1	In	1010
IL223464	422929	882527	1.8	342	56.78	79.87F	98.58	18.72	1	In	1011
IL223463	422938	882506	2.0	358	57.00	79.83F	95.84	16.00	4	In	1015
IL223457	422547	882531	5.2	187	54.31	74.23	74.45	0.22	38	In	1053
IL223455	422604	882646	5.2	207	54.11	74.26	72.64	-1.61	28	Out	1053
IL223450	422717	882735	4.2	236	54.64	74.19	72.20	-1.99	8	Out	1053
IL223449	422742	882636	2.6	234	55.24	74.11	80.29	6.17	15	In	1068
IL223448	422656	882521	3.0	188	55.13	74.13	83.49	9.37	60	In	1128
IL223445	422938	882452	2.0	7	57.07	79.82F	95.91	16.08	2	In	1130
IL223444	422756	882617	2.0	236	55.49	74.08	85.26	11.19	5	In	1135
IL223443	422756	882606	1.8	232	55.56	74.07	86.89	12.82	29	In	1164
IL223442	422801	882605	1.7	235	55.61	74.06	87.94	13.88	47	In	1211
IL223441	422801	882557	1.6	232	55.66	74.05	89.25	15.20	10	In	1221
IL223440	422801	882602	1.7	233	55.63	74.06	88.40	14.34	38	In	1259
IL223439	422757	882557	1.7	228	55.61	74.06	88.91	14.85	5	In	1264
IL223437	422801	882548	1.4	227	55.71	74.05	97.93	23.89	21	In	1285
IL223436	422801	882553	1.5	229	55.69	74.05	97.37	23.32	22	In	1307

IL223435	422806	882553	1.4	234	55.74	74.04	98.05	24.01	27	In	1334
IL223434	422806	882548	1.3	231	55.76	74.04	98.41	24.37	32	In	1366
IL223433	422811	882548	1.2	236	55.81	74.03	99.25	25.22	25	In	1391
IL223432	422811	882553	1.3	239	55.79	74.03	98.82	24.79	34	In	1425
IL223431	422805	882602	1.6	237	55.67	74.05	89.31	15.26	157	In	1582
IL223430	422815	882552	1.3	244	55.84	74.03	99.74	25.72	39	In	1621
IL223429	422815	882548	1.2	242	55.86	74.02	100.20	26.18	23	In	1644
IL223428	422819	882548	1.1	247	55.90	74.02	101.06	27.05	24	In	1668
IL223427	422819	882552	1.2	249	55.88	74.02	100.54	26.52	8	In	1676
IL223425	422821	882543	1.0	248	55.96	74.01	102.36	28.35	3	In	1679
IL223424	422823	882548	1.1	254	55.95	74.01	102.08	28.07	43	In	1722
IL223422	422827	882538	0.8	258	56.05	73.99	104.79	30.80	24	In	1746
IL223421	422823	882530	0.7	243	56.04	73.99	104.84	30.85	73	In	1819
IL223420	422830	882604	1.4	267	55.94	74.01	100.86	26.85	43	In	1862
IL223418	422817	882607	1.5	251	55.78	74.03	88.49	14.45	74	In	1936

Population in affected area 1936