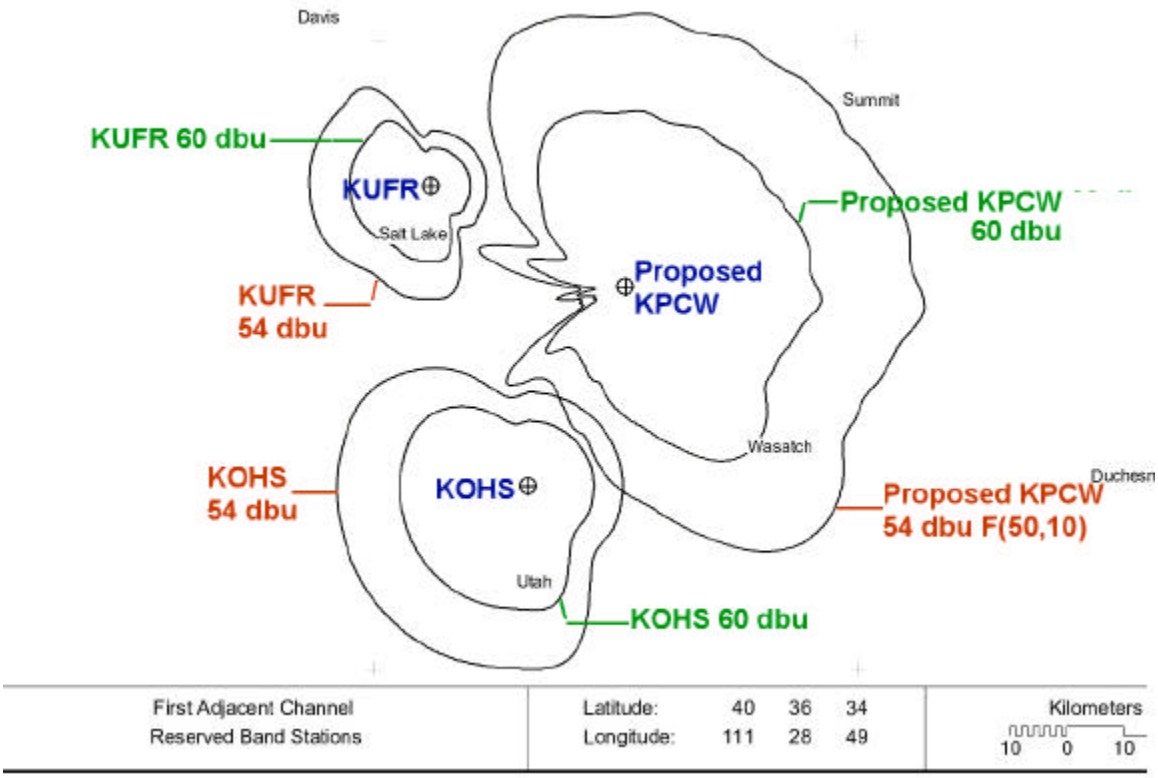
Community Wireless of Park City, Inc.
KPCW (FM)
Change of Transmitter Site
Minor Change

Absence of Interference

I. Co-channel stations. There are no full service co-channel stations on the operating frequency within 250 kilometers. Co Channel Interference is therefore not a consideration.

IIA. Interference between the proposal and First Adjacent channel reserved band stations. First adjacent channel reserved band stations close enough to warrant study include KOHS, Orem; and KUFR, Salt Lake City. The map below shows the interfering and interference free contours with respect to these stations. The contours were calculated and the map was plotted automatically using software provided by CDS, Inc. The 03-second USGS-DMA database was used and the map was plotted using 24 equally spaced contours for KOHS and KUFR, and 72 equally spaced contours for KPCW.



Below are the contours used in creating the above map:

KOHS 40°17'32" N 111°40'58" W 1483 m. AMSL 1.75 KW ERP

Az	HAAT	60 dbu Distance	54 dbu Distance	Az	HAAT	60 dbu Distance	54 dbu Distance	Az	HAAT	60 dbu Distance	54 dbu Distance
0	-619.06	11.63	16.69	120	-805.07	11.63	16.69	240	112.59	22.64	33.78
15	-915.05	11.63	16.69	135	-581.19	11.63	16.69	255	111.42	22.53	33.60
30	-764.06	11.63	16.69	150	48.49	14.62	21.84	270	111.71	22.55	33.64
45	-358.83	11.63	16.69	165	95.28	20.85	30.76	285	109.85	22.38	33.34
60	-492.91	11.63	16.69	180	103.38	21.73	32.23	300	105.62	21.96	32.63
75	-721.04	11.63	16.69	195	105.86	21.99	32.67	315	84.72	19.62	28.81
90	-931.11	11.63	16.69	210	110.18	22.41	33.40	330	54.40	15.57	23.20
105	-839.91	11.63	16.69	225	111.97	22.58	33.68	345	-232.35	11.63	16.69

KUFR 40°46'09" N 111°53'12" W 1413 m. AMSL 0.220 KW ERP

Az	HAAT	60 dbu Distance	54 dbu Distance	Az	HAAT	60 dbu Distance	54 dbu Distance	Az	HAAT	60 dbu Distance	54 dbu Distance
0	-66.26	6.87	9.83	120	-321.40	6.87	9.83	240	123.92	13.83	20.85
15	-255.86	6.87	9.83	135	-151.57	6.87	9.83	255	129.19	14.12	21.30
30	-513.85	6.87	9.83	150	0.82	6.87	9.83	270	130.34	14.19	21.40
45	-658.25	6.87	9.83	165	97.12	12.30	18.18	285	132.05	14.28	21.55
60	-712.56	6.87	9.83	180	113.35	13.25	19.90	300	128.16	14.07	21.22
75\	-475.21	6.87	9.83	195	113.38	13.26	19.91	315	126.70	13.98	21.09
90	-336.50	6.87	9.83	210	100.32	12.49	18.54	330	110.04	13.06	19.58
105	-347.91	6.87	9.83	225	108.44	12.97	19.41	345	31.43	7.01	10.03

KPCW Bald 40°36'34" N 111°28'49" W 2862 m. AMSL 0.120 kW ERP

Az	HAAT	60 dbu Distance	54 dbu Distance	Az	HAAT	60 dbu Distance	54 dbu Distance	Az	HAAT	60 dbu Distance	54 dbu Distance
0	779.99	30.87	47.97	120	739.34	29.95	46.66	240	105.18	10.74	15.12
5	793.38	31.17	48.40	125	747.91	30.14	46.94	245	-57.74	5.87	8.35
10	766.34	30.55	47.53	130	852.42	32.54	50.18	250	-153.87	5.91	8.40
15	742.79	30.03	46.77	135	963.00	34.83	53.06	255	-39.08	5.91	8.40
20	758.18	30.37	47.27	140	1026.16	36.00	54.61	260	63.23	8.62	12.15
25	784.77	30.98	48.12	145	1051.35	36.23	54.92	265	-51.88	5.91	8.40
30	769.70	30.63	47.64	150	1051.74	35.37	53.80	270	37.73	6.56	9.40
35	761.22	30.44	47.37	155	1048.85	33.44	51.30	275	108.94	11.22	16.26
40	784.80	30.98	48.12	160	1035.85	30.83	47.89	280	194.47	15.02	22.71
45	786.46	31.01	48.18	165	1008.97	28.43	44.52	285	270.66	17.88	26.55
50	789.81	31.09	48.28	170	964.49	26.18	41.18	290	175.08	14.29	21.55
55	760.22	30.42	47.33	175	938.78	24.33	38.33	295	120.13	11.75	17.26
60	796.88	31.25	48.51	180	960.63	22.97	36.42	300	140.64	12.69	18.94
65	808.23	31.51	48.86	185	958.54	21.30	33.94	305	225.59	16.22	24.43
70	846.49	32.41	50.00	190	893.25	19.45	30.73	310	295.29	18.71	27.68
75	865.14	32.83	50.54	195	736.73	17.58	27.29	315	370.52	20.86	31.22
80	872.65	33.00	50.74	200	678.43	17.32	26.66	320	488.73	23.95	36.94
85	856.38	32.63	50.29	205	544.03	16.19	24.58	325	591.31	26.72	41.52
90	909.32	33.77	51.72	210	420.49	15.16	23.00	330	710.18	29.31	45.71
95	945.18	34.48	52.62	215	338.98	14.49	21.61	335	791.48	31.13	48.34
100	849.56	32.48	50.09	220	296.76	14.36	21.47	340	812.43	31.61	48.99
105	798.27	31.28	48.55	225	300.67	15.36	22.99	345	815.17	31.68	49.07
110	769.33	30.62	47.63	230	366.84	17.99	26.83	350	800.68	31.34	48.63
115	729.97	29.74	46.36	235	244.64	15.53	23.44	355	776.09	30.78	47.85

There will be no overlap between protected and interfering contours with respect to first adjacent channel reserved band stations.

IIB. Interference between the proposal and Second Adjacent channel reserved band stations. The only such station is KUSU, Logan, which is shown in the database as 218C but actually is

operating with C0 facilities. As this station is 150.2 km removed, it is clear that there will be no interference issue between the 60 dbu protected and 80 dbu interfering contours.

IIC. Interference between the proposal and Third Adjacent channel reserved band stations. The database shows no third adjacent channel reserved band full service stations within 250 km.

IIIA. Interference between the proposal and First Adjacent channel non-reserved band stations. The instant proposal is fully spaced as follows:

Station	Channel	Spacing	Required Spacing
KFRZ, Green River, WY	221C [actual 221C0]	204.7 km	165 km for C
KFRZ, (allotment)	221C	197.4 km	165 km
KUUU, Tooele, UT	221C3	91.9 km	89 km
Allotment, Wellington, UT	221C3	134.5 km	89 km

The proposal is fully spaced to the above. For considerations with respect to first adjacent channel pending allotments in Rule Making 02-14, see Paragraph IV below.

IIIB. Interference between the proposal and Second Adjacent channel non-reserved band stations. The instant proposal is fully spaced as follows:

Station	Channel	Spacing	Required Spacing
KTCE, Payson, Ut [present]	222A	68.3 km	31 km
KTCE, (allotment)	222A	66.6 km	31 km
KTCE, (CP for Aux)	222A	64.7 km	31 km

The proposal is fully spaced to the above. For considerations with respect to pending Rule Making 02-14 regarding this station, see Paragraph IV below.

IIIC. Interference between the proposal and Third Adjacent channel non-reserved band stations. The instant proposal is fully spaced to the following:

Station	Channel	Spacing	Required Spacing
KCUA, Coalville [Allotment]	223C3	44.5 km	42 km
KCUA, Coalville, Ut.	223C3	43.1 km	42 km
Proposed Rule Making 02-14			
South Jordan, Utah	223C2	61.3 km	55 km

IIID. Interference between the proposal and I.F. spaced Adjacent channel non-reserved band stations. The instant proposal is fully spaced as follows:

There are no I.F. spaced primary stations within the required separation distance.

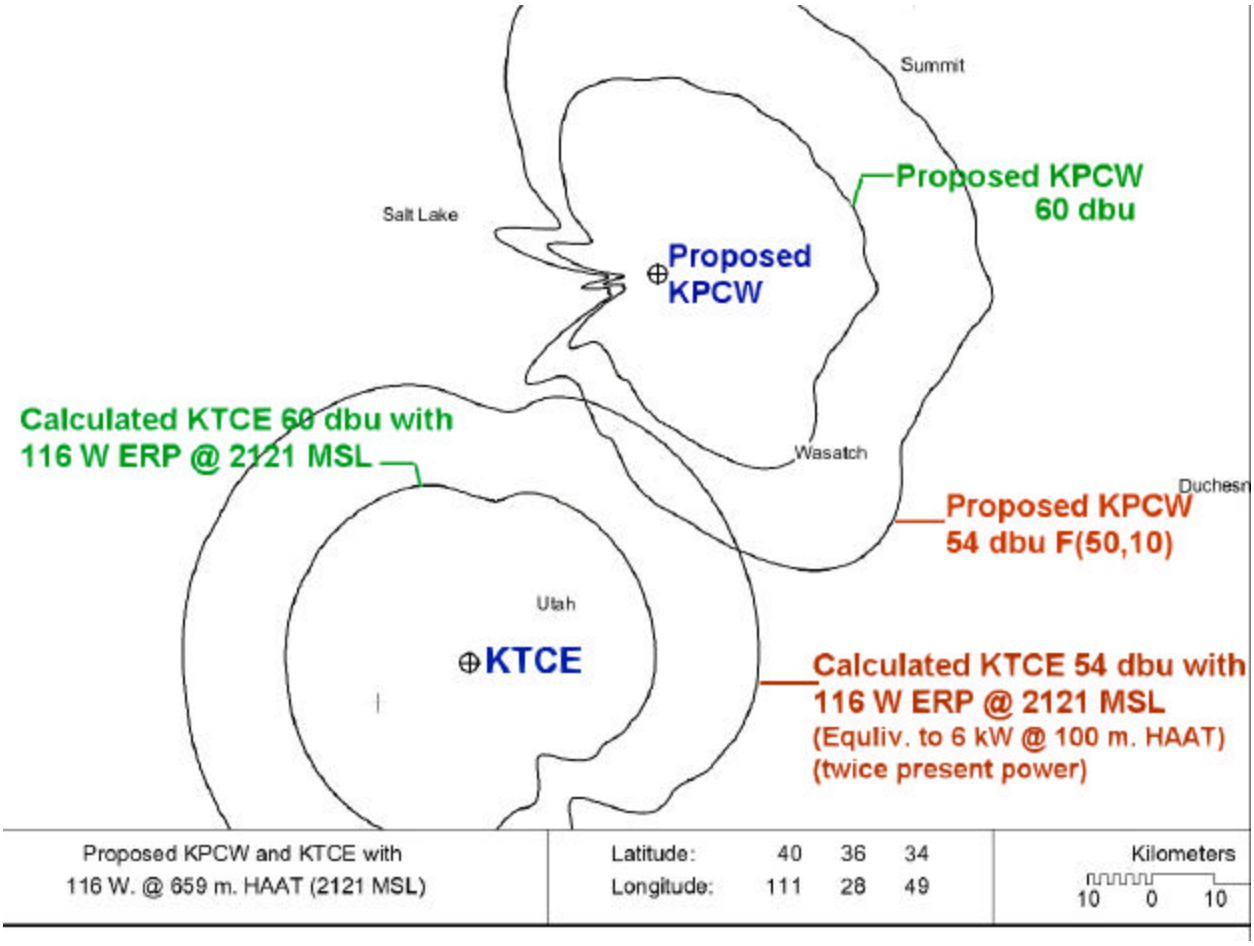
IV. Interference between the proposal and Adjacent channel non-reserved band stations for which absence of interference must be calculated.

Proposed Rulemaking 02-14:

Station	Channel	Spacing	Required Spacing
(KTCE) Payson, UT	221A	68.3 km	72 km (49 km per §73.215)

Should the allotment change above be granted, either KTCE or KPCW may need to have §73.215 status. No actual interference will be caused as shown below:

A. KTCE operating at their present site and center of radiation with 116 watts ERP at 653 meters HAAT (2078 m. AMSL) which is the equivalent of 6 kilowatts at 100 meters HAAT. Note that an antenna with a center of radiation of 100 m. HAAT would be 542 meters underground at the KTCE site. (Because of the relationship between KTCE and KOHS, explained below, operation with facilities equivalent to 6 kW at 100 meters HAAT is not actually possible for KTCE.)



KTCE Calculated from Actual Site 2121. meters RCAMSL 659 m. HAAT

Az	HAAT	58 Watt 60 dbu Distance	58 Watt 54 dbu Distance	116 watt 60 dbu Distance	116 watt 54 dbu Distance	Az	HAAT	58 Watt 60 dbu Distance	58 Watt 54 dbu Distance	116 watt 60 dbu Distance	116 watt 54 dbu Distance
0	597.20	22.55	34.38	26.63	41.40	180	620.84	23.02	35.31	27.15	42.31
5	575.27	22.09	33.50	26.13	40.47	185	617.73	22.96	35.19	27.09	42.19
10	577.48	22.14	33.59	26.18	40.57	190	681.47	24.10	37.37	28.45	44.40
15	648.76	23.53	36.32	27.76	43.30	195	718.40	24.72	38.43	29.24	45.60
20	693.18	24.30	37.72	28.70	44.78	200	726.32	24.85	38.65	29.41	45.85
25	715.36	24.67	38.35	29.18	45.50	205	731.43	24.93	38.79	29.52	46.02
30	723.91	24.81	38.59	29.36	45.78	210	735.21	25.00	38.89	29.61	46.14
35	732.37	24.95	38.82	29.54	46.05	215	739.24	25.06	39.00	29.69	46.27
40	737.56	25.03	38.96	29.66	46.22	220	738.43	25.05	38.98	29.67	46.24
45	738.64	25.05	38.98	29.68	46.25	225	735.91	25.01	38.91	29.62	46.16
50	737.76	25.04	38.96	29.66	46.22	230	732.52	24.95	38.82	29.55	46.05
55	736.07	25.01	38.92	29.62	46.17	235	728.17	24.88	38.70	29.45	45.91
60	733.66	24.97	38.85	29.57	46.09	240	722.47	24.79	38.55	29.33	45.73
65	730.87	24.92	38.78	29.51	46.00	245	717.28	24.70	38.40	29.22	45.56
70	728.02	24.88	38.70	29.45	45.91	250	715.05	24.67	38.34	29.17	45.49
75	726.07	24.85	38.65	29.41	45.85	255	708.69	24.56	38.16	29.03	45.29
80	723.88	24.81	38.59	29.36	45.78	260	702.74	24.46	37.99	28.90	45.09
85	719.98	24.75	38.48	29.28	45.65	265	702.48	24.46	37.99	28.90	45.08
90	715.04	24.67	38.34	29.17	45.49	270	707.04	24.54	38.12	29.00	45.23
95	706.67	24.53	38.11	28.99	45.22	275	711.64	24.61	38.25	29.10	45.38
100	685.06	24.16	37.48	28.53	44.52	280	718.24	24.72	38.43	29.24	45.60
105	656.05	23.66	36.56	27.91	43.55	285	722.23	24.79	38.54	29.33	45.72
110	614.18	22.89	35.05	27.01	42.06	290	726.17	24.85	38.65	29.41	45.85
115	579.98	22.19	33.69	26.24	40.68	295	728.73	24.89	38.72	29.47	45.93
120	525.47	20.95	31.53	24.83	38.25	300	724.03	24.81	38.59	29.37	45.78
125	516.97	20.74	31.21	24.59	37.86	305	738.06	25.04	38.97	29.67	46.23
130	486.86	19.97	30.17	23.70	36.53	310	742.69	25.12	39.09	29.77	46.38
135	391.30	17.86	26.78	21.23	32.00	315	744.92	25.15	39.15	29.81	46.45
140	297.83	15.55	23.26	18.63	27.57	320	744.65	25.15	39.14	29.81	46.44
145	296.86	15.52	23.23	18.60	27.52	325	743.24	25.13	39.11	29.78	46.40
150	410.23	18.27	27.52	21.70	33.01	330	740.62	25.08	39.04	29.72	46.31
155	507.88	20.51	30.89	24.32	37.46	335	737.54	25.03	38.96	29.66	46.22
160	507.82	20.51	30.88	24.32	37.45	340	729.56	24.90	38.74	29.48	45.96
165	523.67	20.90	31.46	24.78	38.16	345	713.08	24.64	38.29	29.13	45.43
170	582.54	22.25	33.79	26.30	40.79	350	686.79	24.19	37.53	28.57	44.57
175	632.77	23.24	35.75	27.41	42.74	355	644.44	23.45	36.17	27.66	43.15

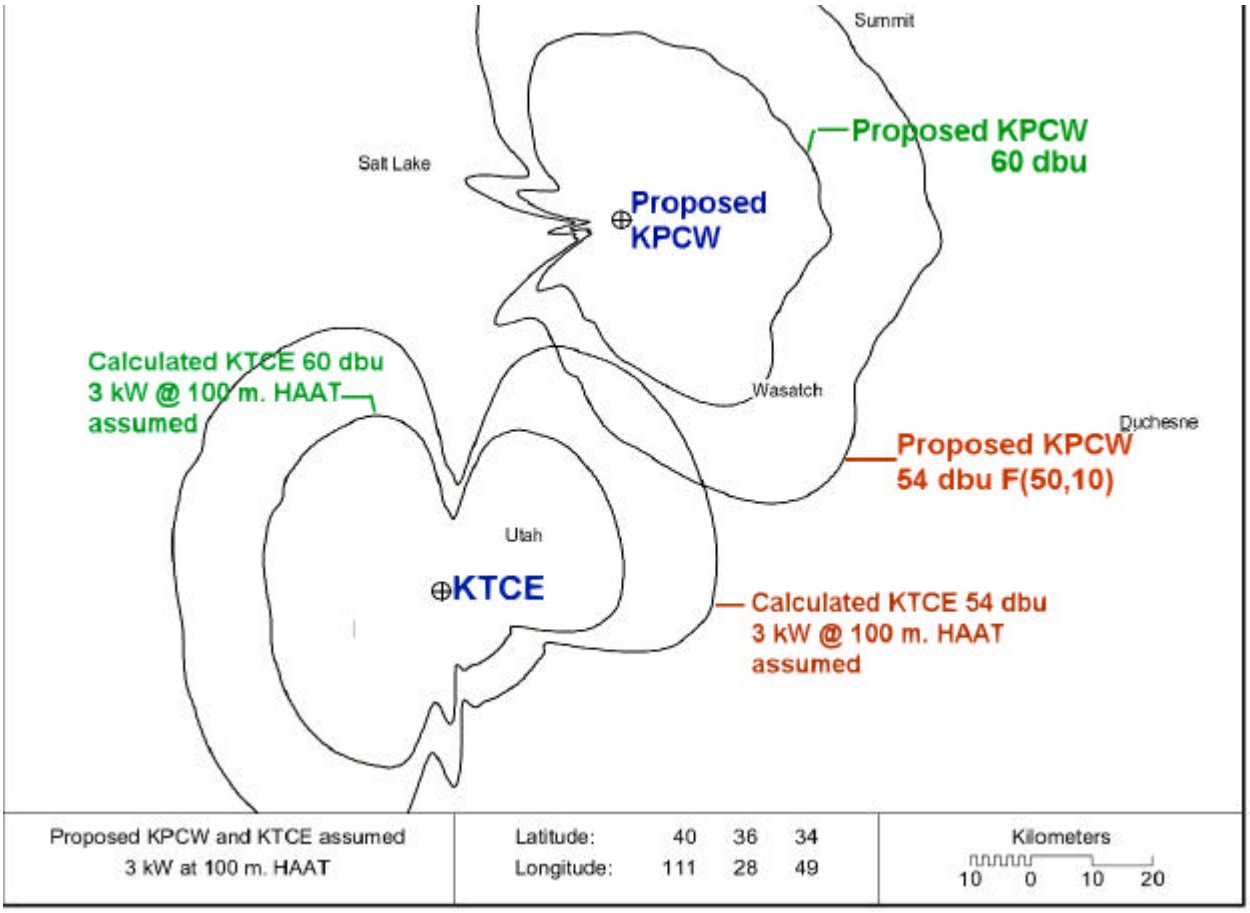
The present KTCE is on the third adjacent channel from KOHS, 219A, Orem Utah.[1] KTCE is spaced from KOHS as follows:

Station	Channel	Spacing	Required Spacing
KTCE	222A	29.07 km	31 km
Payson Allotment	222A	28.15 km	31 km
KTCE Auxiliary CP	222A	27.32 km	31 km

When the Payson, UT allotment was made and when KTCE was assigned, the rules allowed a maximum of 3 kW ERP and a consequently lesser Co-channel A to A spacing.[2] Because KTCE

[1] Proposed Rule Making 02-14 proposes second adjacent channel spacing, for which the same spacing requirements (as for third adjacent channel spacing) apply.

is short spaced to KOHS under the current rules, the station is now, and will continue to be if the channel changed requested in Rule Making 02-14 is granted, restricted to being the equivalent of a 3 kW Class A station. Assumed 3 kW at 100 meters HAAT (it is impossible to actually build 100 meters HAAT at the site as the antenna would be underground) coverage will not overlap the coverage of the proposed KPCW facilities as shown below:



KTCE theoretical at present site: 40°03'20" N 111°49'43" W

		3 kW 100 m. HAAT			3 kW 100 m. HAAT				3 kW 100 m. HAAT		
		60 dbu	54 dbu			60 dbu	54 dbu			60 dbu	54 dbu
Az	HAAT	Distance	Distance	Az	HAAT	Distance	Distance	Az	HAAT	Distance	Distance
0	40.84	15.29	22.83	120	-30.89	13.22	19.52	240	166.11	30.31	45.70
5	18.91	13.22	19.52	125	-39.39	13.22	19.52	245	160.92	29.84	45.08
10	21.12	13.22	19.52	130	-69.50	13.22	19.52	250	158.69	29.64	44.81
15	92.40	23.31	35.07	135	-165.06	13.22	19.52	255	152.33	29.08	44.05
20	136.82	27.72	42.15	140	-258.53	13.22	19.52	260	146.38	28.56	43.33
25	159.00	29.67	44.85	145	-259.50	13.22	19.52	265	146.12	28.54	43.30
30	167.55	30.43	45.87	150	-146.13	13.22	19.52	270	150.68	28.93	43.85
35	176.01	31.17	46.88	155	-48.48	13.22	19.52	275	155.28	29.34	44.41
40	181.20	31.62	47.49	160	-48.54	13.22	19.52	280	161.88	29.93	45.20
45	182.27	31.71	47.61	165	-32.69	13.22	19.52	285	165.87	30.28	45.67

[2] When the Allotment was made and when the present KTCE facilities were applied for, the required spacing for second and third adjacent channel Class A to Class A stations was 27 km.

KTCE theoretical, continued

		3 kW 100 m. HAAT				3 kW 100 m. HAAT				3 kW 100 m. HAAT	
		60 dbu	54 dbu			60 dbu	54 dbu			60 dbu	54 dbu
Az	HAAT	Distance	Distance	Az	HAAT	Distance	Distance	Az	HAAT	Distance	Distance
50	181.40	31.64	47.51	170	26.18	13.22	19.52	290	169.81	30.63	46.14
55	179.71	31.49	47.31	175	76.41	21.25	31.40	295	172.37	30.86	46.44
60	177.30	31.28	47.03	180	64.48	19.61	28.73	300	167.66	30.44	45.88
65	174.51	31.04	46.70	185	61.37	19.17	28.06	305	181.70	31.66	47.55
70	171.66	30.79	46.36	190	125.11	26.71	40.65	310	186.33	32.05	48.09
75	169.71	30.62	46.13	195	162.04	29.94	45.21	315	188.56	32.24	48.36
80	167.52	30.43	45.87	200	169.96	30.64	46.16	320	188.29	32.21	48.33
85	163.62	30.08	45.40	205	175.07	31.09	46.76	325	186.88	32.10	48.16
90	158.68	29.64	44.81	210	178.85	31.42	47.21	330	184.26	31.88	47.85
95	150.31	28.90	43.81	215	182.88	31.76	47.69	335	181.18	31.62	47.48
100	128.70	27.02	41.12	220	182.07	31.69	47.59	340	173.20	30.93	46.54
105	99.69	24.18	36.56	225	179.55	31.48	47.29	345	156.72	29.47	44.58
110	57.82	18.64	27.29	230	176.16	31.19	46.89	350	130.43	27.17	41.34
115	23.62	13.22	19.52	235	171.81	30.81	46.38	355	88.08	22.78	34.13

Interference in populated areas between the requested KPCW site and KTCE will be less than predicted by the method of §73.313 because a high mountain range between the two stations' service areas shields each station's signal from the other station's service area.

Should the channel for KTCE be changed from 222A to 221A by Proposed Rulemaking 02-14, neither actual interference nor interference calculated by the method of §73.313 will occur between the facilities requested for KPCW and KTCE, if KTCE operates at the same location with the same power as at present.

Respectfully Submitted,

Dennis Silver
State of Utah Registered
Professional Engineer No. 168212