



2355 Ranch Drive, Westminster, CO 80234
Phone: 303-465-5742 ~ Fax: 303-465-4067
E-Mail: stcl@comcast.net

B. W. St. Clair

**Supplemental Exhibit in Support of STA Request
BSTA-20090310ADP, Ch 23
Denver, CO**

Introduction

This application requests a waiver of the adjacent channel interference rules to permit the use of a “full service” adjacent channel mask to protect two adjacent channel digital full service stations:

KRDO-DT, Ch 24 BLCDT-20060329AAW
KXRM-DT, Ch 22 BLCDT-20030702ABE

Table 54 from OET Bul 69 provides the allowable adjacent channel ratios (- indicates interfering signal greater than desired signal.)

	Protected Channel	
	Lower Adjacent Ch 22	Upper Adjacent Ch 24
Full Service OET Bulletin 69	-26dB	-28dB
LPTV Stringent mask	-12dB	-12dB
Change	14dB	16dB

The results of a Longley-Rice Terrain Dependent Interference Analysis based on an LPTV stringent mask corrected for the 14 or 16dB difference are presented below.

The lost population adjustment is derived from an examination of the cell-by-cell analysis in the file “xxxx_ix”. This file shows, on a cell-by-cell basis, the lost population due to the new application and the dB level by which the interfering signal exceeds the non-interference value. With the 14 or 16dB improvement only the cells, which show greater ratios, will still cause interference with the benefit of the full service mask in place.

**Interference to KXRM-DT, Ch 22
BLCDT-20030702ABE**

Within noise limited contour	1,125,912
After analysis based on 14dB Adjustment (Note 1)	2,522
$(2,522 \div 1,125,922) \times 100$	0.22%

**Interference to KRDO-DT, Ch 24
BLCDT-20060329AAW**

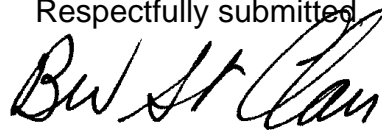
Within noise limited contour	1,734,856
After analysis based on 16dB Adjustment (Note 1)	1,453
$(1,453 \div 1,734,856) \times 100$	0.08%

Note 1: The supplemental file "xxxx_ix" lists only those cells which receive interference from the new application. It lists the amount in dB by which each affected cell is over the allowable interference ratio. To determine the lost population based on the 14 or 16dB improvement it is only necessary to add the populations of those cells, which have interference exceeding the appropriate ratio.

Conclusion

This proposed station when built and tested to compliance with the full service mask will not cause interference in excess of the allowed 0.5% to either KXRM-DT or KRDO-DT. The "STA" request is grantable as requested specifying the full service mask.

Respectfully submitted



B. W. St. Clair
Engineering Consultant
04/14/2009

30.0	109.3	5.33	410	142501	377592
28.9	111.2	8.73	2236	142484	377652
27.7	112.4	8.35	2049	142480	377706
40.1	103.3	1.41	188	142522	377145
36.1	104.5	3.05	9	142529	377314
34.8	104.9	4.54	587	142532	377370
30.8	107.5	5.95	1	142522	377547
29.9	108.1	5.83	223	142522	377590
28.4	109.3	6.76	2150	142519	377656
26.6	110.8	7.16	2335	142517	377740
37.0	103.1	0.46	137	142549	377270
35.8	103.1	2.14	58	142559	377317
34.6	103.9	4.93	136	142553	377371
34.3	103.9	6.12	30	142555	377383
32.9	104.8	6.82	0	142550	377446
31.6	104.7	6.39	274	142562	377499
30.7	105.4	6.21	1755	142558	377539
30.2	105.3	7.91	183	142564	377560
28.0	107.7	6.82	1874	142547	377661
26.2	108.8	8.94	2026	142549	377742
49.3	98.5	1.13	0	142582	376732
41.6	99.8	0.33	639	142590	377060
40.5	100.5	3.50	0	142582	377110
40.0	100.8	8.59	67	142577	377131
36.5	101.7	1.48	34	142581	377281
35.6	102.1	2.54	9	142581	377321
34.6	102.3	6.03	0	142582	377362
33.8	102.6	7.83	6	142583	377398
32.2	102.9	6.96	328	142589	377464
31.5	103.4	7.11	1792	142585	377494
30.6	103.9	6.48	1931	142583	377533
29.8	104.3	7.87	815	142584	377570
29.1	104.4	8.18	430	142588	377598
27.7	106.0	6.60	928	142576	377664
26.9	106.2	8.44	1470	142580	377698
25.9	106.6	9.06	1765	142583	377740
35.8	99.8	0.97	165	142624	377300
34.5	100.9	7.08	65	142610	377360
31.3	101.7	5.31	1586	142616	377495
30.6	102.3	4.73	1087	142611	377526
29.6	102.4	9.31	708	142616	377568
28.5	103.0	7.90	0	142614	377614
27.4	103.9	7.55	102	142609	377667
26.5	104.0	7.73	500	142615	377701
34.5	98.5	0.92	216	142656	377349
31.2	100.4	7.56	497	142639	377494
30.3	100.8	5.51	1181	142639	377533
29.3	100.3	8.59	350	142652	377571
27.1	102.4	4.90	110	142634	377669
26.3	102.3	6.81	116	142641	377704
25.2	101.6	8.93	154	142658	377743
41.6	96.2	1.51	11	142676	377044
41.0	96.2	0.13	0	142678	377068
35.0	97.3	0.08	2333	142678	377324
34.1	97.3	2.90	1970	142682	377362
26.2	100.4	6.49	308	142670	377701
25.2	99.4	8.17	98	142689	377736
22.2	101.7	7.34	269	142677	377867
43.0	95.0	4.20	3	142698	376981

39.7	94.9	1.48	969	142710	377120
37.8	95.1	2.17	1797	142713	377199
35.0	95.7	0.61	1151	142709	377317
34.1	96.3	1.50	430	142701	377357
33.5	96.7	4.92	13	142695	377385
32.4	96.1	4.93	8	142711	377427
28.1	97.0	9.70	1766	142711	377611
27.2	97.7	8.65	4053	142705	377648
26.0	97.6	6.63	1225	142711	377697
25.0	97.7	8.57	818	142714	377741
22.0	99.1	7.30	141	142711	377871
39.6	93.5	3.20	989	142743	377121
37.8	93.9	2.28	1724	142738	377197
36.8	93.9	3.39	2957	142740	377238
34.9	94.3	0.93	2026	142736	377318
28.9	94.9	8.91	1359	142742	377570
27.9	94.8	9.20	2484	142746	377612
26.9	95.5	6.75	1426	142739	377655
26.0	95.5	5.86	1083	142742	377696
25.0	95.5	5.83	1325	142745	377736
16.2	99.0	19.26*	1453	142741	378109
39.6	92.1	2.90	1286	142774	377119
37.5	92.4	4.45	1180	142771	377207
36.8	92.4	3.46	2147	142772	377237
34.9	92.5	1.45	2263	142772	377316
33.7	92.5	0.77	1277	142775	377368
33.0	92.1	4.78	1784	142783	377394
31.7	92.4	4.22	3306	142779	377452
26.9	93.7	8.16	1827	142767	377655
25.9	93.3	6.89	1909	142774	377695
24.8	93.4	7.27	1804	142775	377742
21.7	94.6	11.81	3161	142767	377874
39.6	91.1	2.86	324	142795	377119
37.5	90.7	5.76	984	142806	377207
33.7	91.1	0.57	2086	142801	377364
32.8	91.0	2.87	2133	142804	377401
31.7	90.8	3.71	1895	142808	377449
30.9	91.0	6.35	1328	142805	377485
29.6	90.9	9.04	2211	142807	377537
27.0	90.7	10.10	3052	142811	377646
25.7	91.2	7.60	1809	142805	377700
24.8	91.3	7.91	1305	142804	377740
46.0	89.6	1.38	4	142829	376849
37.6	89.1	4.35	990	142841	377199
36.8	89.1	6.33	2669	142840	377236
35.7	89.1	9.02	1741	142839	377281
34.9	89.1	2.91	2693	142839	377315
34.1	89.3	6.42	1260	142836	377347
32.7	89.0	4.47	2545	142840	377408
31.8	88.9	3.31	2520	142841	377445
30.9	89.1	3.98	1717	142837	377482
29.7	88.9	7.58	2210	142841	377533
29.0	89.3	9.93	880	142833	377564
27.8	89.3	11.15	1269	142834	377615
26.5	89.0	7.48	1113	142838	377667
25.8	89.3	7.80	2377	142833	377697
24.8	88.9	8.24	2027	142838	377740
45.3	88.2	2.65	1	142866	376876
37.8	87.8	4.59	2388	142869	377194



36.9	87.8	4.42	1825	142866	377230
34.7	87.6	8.16	2218	142869	377324
33.8	87.4	7.77	2645	142871	377362
32.7	87.4	5.18	1565	142870	377408
31.7	87.3	3.63	1617	142870	377449
30.8	87.2	4.72	1799	142870	377489
29.7	87.1	7.11	1658	142870	377536
28.7	87.2	9.23	576	142867	377576
27.7	86.7	10.43	1465	142874	377619
27.0	87.0	9.65	2203	142869	377648
25.8	86.7	8.10	1568	142870	377699
24.8	86.8	8.24	2172	142867	377740
54.8	87.3	2.46	0	142902	376480
46.8	86.9	0.25	0	142902	376816
45.8	86.8	5.22	0	142902	376858
43.5	86.1	4.87	20	142915	376957
43.2	86.1	4.00	25	142916	376970
41.8	86.5	6.01	0	142902	377026
39.8	86.4	5.65	0	142902	377110
35.8	86.1	6.76	2806	142900	377278
34.7	85.8	8.77	3320	142903	377326
33.9	86.1	1.37	2121	142897	377359
32.7	85.8	3.80	1663	142900	377409
31.9	85.7	2.93	2880	142900	377443
30.9	85.2	4.92	1483	142905	377485
29.9	85.2	6.83	1494	142903	377527
28.6	85.5	7.73	1115	142895	377582
27.8	85.0	9.34	390	142901	377618
26.9	84.9	9.90	4740	142900	377657
25.8	84.7	7.90	1254	142900	377703
24.8	84.2	8.04	4863	142904	377746
18.0	82.2	14.25	2976	142902	378032
43.7	85.4	3.23	34	142934	376950
42.9	85.3	0.17	0	142934	376984
41.6	85.8	4.92	2	142920	377036
36.9	85.2	5.86	569	142921	377234
35.9	84.5	7.75	2783	142933	377279
35.1	84.6	8.68	2135	142929	377312
34.0	84.7	9.78	1158	142924	377360
33.0	83.9	3.74	1953	142935	377403
31.9	84.0	3.55	3279	142930	377446
31.0	83.7	6.86	2114	142932	377487
29.9	83.4	7.84	2633	142934	377534
29.2	83.1	8.06	2831	142936	377564
28.2	82.7	10.15	1835	142938	377604
26.8	83.0	7.34	1706	142928	377662
25.9	82.8	7.66	1594	142928	377700
25.0	82.1	7.69	2381	142934	377741
18.2	79.3	13.05	2218	142933	378032
44.0	84.0	2.56	236	142968	376942
41.2	83.3	8.05	5	142975	377062
37.9	83.7	7.29	341	142956	377199
37.0	83.1	7.00	0	142966	377236
36.3	83.3	8.24	1603	142959	377266
32.9	82.7	4.15	1369	142957	377407
32.0	82.3	4.50	1192	142961	377447
31.2	81.9	5.68	3857	142965	377484
30.6	80.9	7.41	86	142979	377509
29.5	82.3	8.02	357	142950	377554

28.1	80.9	8.80	0	142966	377614
26.9	81.3	7.45	370	142954	377664
26.3	80.4	7.53	2579	142964	377693
25.3	79.9	7.52	1151	142967	377735
21.2	78.2	12.08	4398	142964	377908
18.2	76.5	13.65	1489	142961	378036
41.2	82.9	8.50	3	142985	377060
36.7	80.8	9.55	182	143012	377256
36.5	82.0	8.43	1	142985	377262
32.0	80.6	4.80	1662	142991	377452
31.2	80.0	8.07	1608	142998	377488
30.2	79.6	8.00	2608	142998	377534
28.2	79.9	8.95	3165	142982	377613
27.2	78.6	9.83	1372	142996	377661
26.4	78.1	7.45	1410	142998	377697
25.3	77.8	7.08	1738	142996	377740
21.3	75.7	11.91	3766	142994	377912
44.6	81.8	1.77	1	143027	376923
41.3	81.1	7.23	147	143028	377066
31.4	78.3	9.06	2498	143029	377488
30.4	77.8	7.99	2373	143030	377531
29.6	77.3	8.87	1124	143033	377568
28.5	76.2	9.41	835	143043	377616
27.5	76.5	10.36	1441	143031	377658
26.5	76.1	7.58	2130	143029	377698
25.5	75.6	6.94	2760	143028	377743
24.6	74.9	7.54	2895	143031	377782
21.7	72.8	10.25	8351	143031	377912
21.1	71.9	12.02	3578	143035	377940
68.1	83.6	0.07	0	143062	375934
67.6	83.2	3.22	214	143074	375956
53.9	81.7	5.99	12	143070	376537
53.2	81.9	5.64	0	143062	376564
51.8	81.2	6.87	6	143075	376628
45.6	80.4	5.89	2	143066	376888
44.3	80.3	1.24	0	143062	376942
43.8	80.0	0.52	2	143066	376964
40.4	78.9	7.54	801	143073	377114
38.1	78.6	8.33	26	143065	377208
32.6	76.8	9.70	1966	143063	377448
31.7	76.4	9.29	3036	143063	377486
30.7	76.1	8.25	1809	143062	377527
29.7	75.6	9.40	3114	143061	377573
28.8	75.1	9.84	2066	143062	377612
27.8	74.6	10.35	1915	143062	377655
26.7	74.0	7.65	2108	143061	377700
25.9	73.5	6.95	2443	143061	377739
24.9	72.9	8.25	2910	143060	377782
22.0	70.8	10.85	5591	143058	377908
68.4	83.0	0.66	3	143083	375922
55.6	81.5	3.86	12	143083	376468
54.5	80.6	5.18	16	143107	376518
40.5	78.3	7.57	1010	143088	377111
38.3	77.6	8.42	31	143087	377208
31.9	74.7	9.89	2490	143095	377487
30.9	74.2	8.49	2541	143095	377530
30.1	74.1	9.47	1519	143089	377565
28.9	73.7	10.05	1303	143085	377615
28.0	72.6	9.99	1944	143094	377657

27.1	71.9	7.24	2300	143095	377699
26.2	71.2	6.64	2437	143096	377738
25.5	70.7	8.01	1658	143095	377771
22.3	68.0	10.71	3631	143094	377910
67.1	82.0	5.94	813	143118	37598
44.9	78.1	0.43	2	143120	376934
44.1	77.6	6.12	4	143128	376968
42.9	77.0	5.17	19	143132	377021
41.4	77.4	6.55	7	143113	377082
40.8	76.6	7.44	0	143126	377110
37.2	74.6	4.62	11	143141	377270
27.4	69.9	7.33	2178	143128	377699
26.5	69.3	6.63	2617	143126	377740
25.6	68.5	7.47	2348	143127	377778
59.1	80.0	4.15	1	143150	376329
54.4	78.9	3.59	32	143158	376534
36.9	73.5	4.83	45	143162	377291
36.5	73.5	5.26	37	143157	377308
27.7	68.2	7.21	2360	143157	377698
26.8	67.4	8.61	2223	143156	377739
25.8	66.6	7.12	1017	143155	377785
22.6	63.3	11.25	83	143152	377933
20.5	59.9	10.66	3405	143157	378034
19.7	58.5	11.99	3994	143157	378074
55.4	78.0	4.81	3	143190	376500
54.9	77.8	3.07	9	143193	376520
44.9	75.3	6.50	5	143189	376953
44.2	75.0	6.93	0	143190	376984
42.0	74.1	8.34	422	143193	377080
37.5	72.3	4.51	0	143190	377278
33.3	70.8	6.85	9	143177	377458
28.2	66.2	6.96	32	143192	377695
27.2	65.4	8.62	0	143190	377740
26.0	64.9	8.63	131	143180	377791
23.1	59.7	10.41	844	143200	377943
21.7	58.5	11.30	1456	143190	378004
21.0	57.6	10.89	3243	143188	378035
20.2	56.1	10.83	2961	143189	378075
54.0	76.7	3.86	97	143219	376568
53.1	76.4	1.97	0	143222	376606
51.9	76.1	3.85	4	143224	376659
43.2	73.8	6.07	1	143212	377033
28.7	63.8	7.37	3	143233	377698
26.8	62.6	8.83	0	143222	377782
23.4	58.5	10.14	1266	143219	377943
21.5	55.1	10.46	1860	143222	378039
40.9	70.3	1.10	6	143268	377161
38.1	69.5	5.39	0	143254	377278
34.7	67.2	6.96	1580	143256	377436
29.3	62.4	7.31	367	143262	377689
28.3	62.6	7.65	7	143245	377723
26.9	61.1	9.07	4	143243	377792
23.7	56.8	9.49	1044	143244	377947
34.8	66.5	6.82	194	143272	377437
29.6	61.5	6.93	380	143281	377686
58.7	74.7	4.94	0	143318	376396
58.0	74.2	4.77	2	143328	376430
29.9	59.4	6.54	2298	143316	377699

END OF SCENARIO