

KDSP-FM2, BOULDER, CO**EXHIBIT 11 - NARRATIVE****ENGINEERING STATEMENT**

Front Range Sports Network, LLC ("FRSN") is the licensee of KDSP(FM) (BLH-20070514AGO, FCC Identification Number 37028), licensed to Greenwood Village, Colorado. FRSN is also the licensee of on-channel FM booster station KDSP-FM2 (BLFTB-20070725AEH, FCC Identification Number 171085), licensed to Boulder, Colorado. In the instant application FRSN proposes to move KDSP-FM2 to a different tower and make other changes.

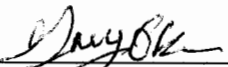
The proposed support structure is an existing, unregistered tower with other booster stations collocated. The coordinates of this tower are clear to both international boundaries and are 19.1 km and 17.9 km, respectively, from the reference coordinates of the FCC monitoring station and the Table Mountain Radio Receiving Zone. The proposed maximum ERP is .040 kW. Thus the FRSN proposal clears the coordination distance to both facilities for transmissions of less than .050 kW, 2.4 km (see 47 CFR §§ 73.1030(c)(3)(i) and 73.1030(b)(1)(i)). Exhibit 11.1 is a contour map of the licensed and proposed KDSP-FM2 predicted 60 dBu contour distances compared to the KDSP main channel contour distances, showing that the FRSN proposal meets the requirements of 47 CFR §74.1201(g). This study also shows that the proposal is a minor change application under the definitions supplied in 47 CFR §74.1233(a)(1). Exhibit 11.2 contains graphs and tabulations of both the horizontal and vertical patterns being proposed, supplied by the manufacturer of the antenna.

Exhibit 13 is a contour spacing study of the proposal, showing that it clears all the records in the database except where noted. Third-adjacent K269AE is located approximately 100 meters from the proposed tower and operates with higher power. Thus there could be no location at which the FRSN proposal could exceed the signal strength of K269AE by 40 dB, and the proposal meets the requirement of 47 CFR §74.1204(a)(3) relative to this record. Second-adjacent K274BW is located so that the FRSN proposal would be predicted to produce an area of interference containing 17 persons (block data, 2000 Census). This is illustrated in the contour map contained in Exhibit 11.4. Exhibit 11.3 contains a copy of a letter from the licensee of K274BW stating that they are willing to receive the possible predicted interference. FRSN respectfully requests a waiver of the requirements of the regulation relative to this predicted interference.

Exhibit 17 contains a study of the predicted radio-frequency radiation impact from the FRSN proposal. The vertical pattern values supplied by the manufacturer of the antenna were used in this calculation, which shows that the proposal is predicted to cause a contribution at head height of less than 5 percent of the permitted limit. Pursuant to 47 CFR §1.1307(b)(3), no further study is required. FRSN affirms that it will cease transmission as necessary to protect tower workers from exposures in excess of the cited regulation. Since no tower construction is required for this proposal, no other environmental impacts are known to exist.

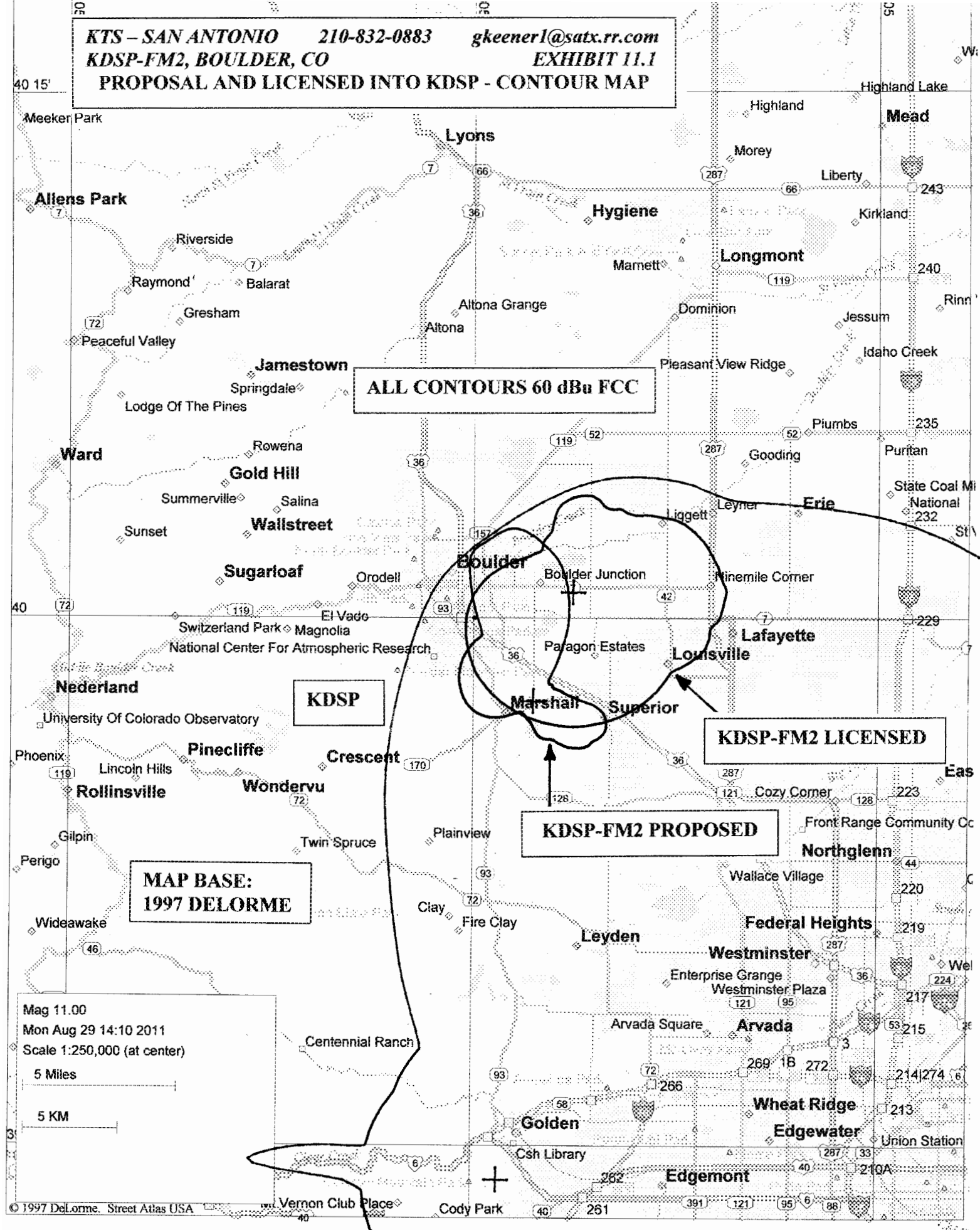
The above and attached information is correct and true as to my knowledge and belief.

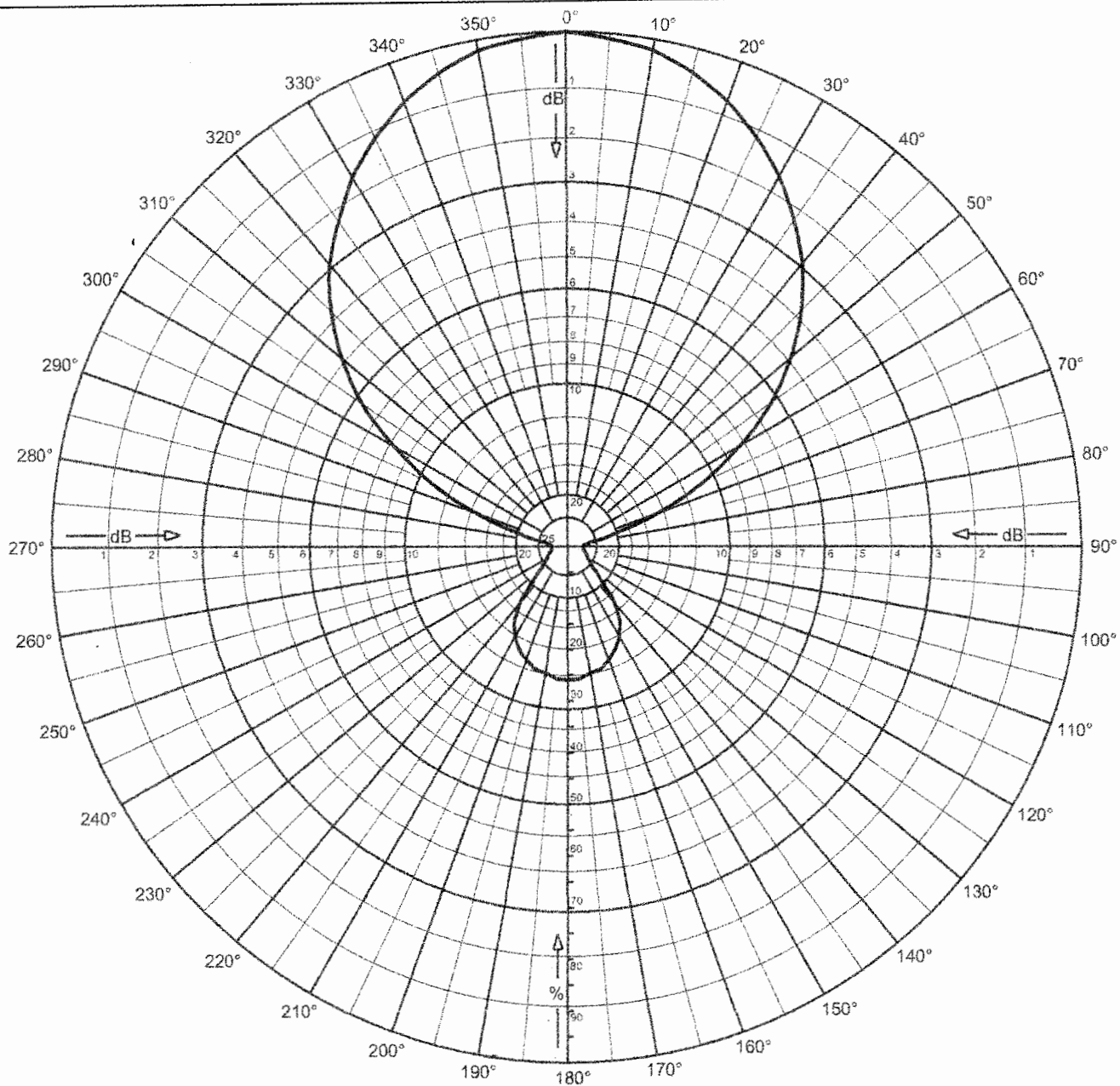
September 8, 2011



Gary O. Keener

KTS - SAN ANTONIO 210-832-0883 gkeener1@satx.rr.com
KDSP-FM2, BOULDER, CO EXHIBIT 11.1
PROPOSAL AND LICENSED INTO KDSP - CONTOUR MAP





CA2-FM/50N/CV Yagi Array

Any single channel 88-108 MHz

Gain: 1.0 dBd (x 1.25)

Circular Polarized

Horizontal plane Pattern

KATHREIN
SCALA DIVISION

CA2-FM/50N/CV Yagi Array

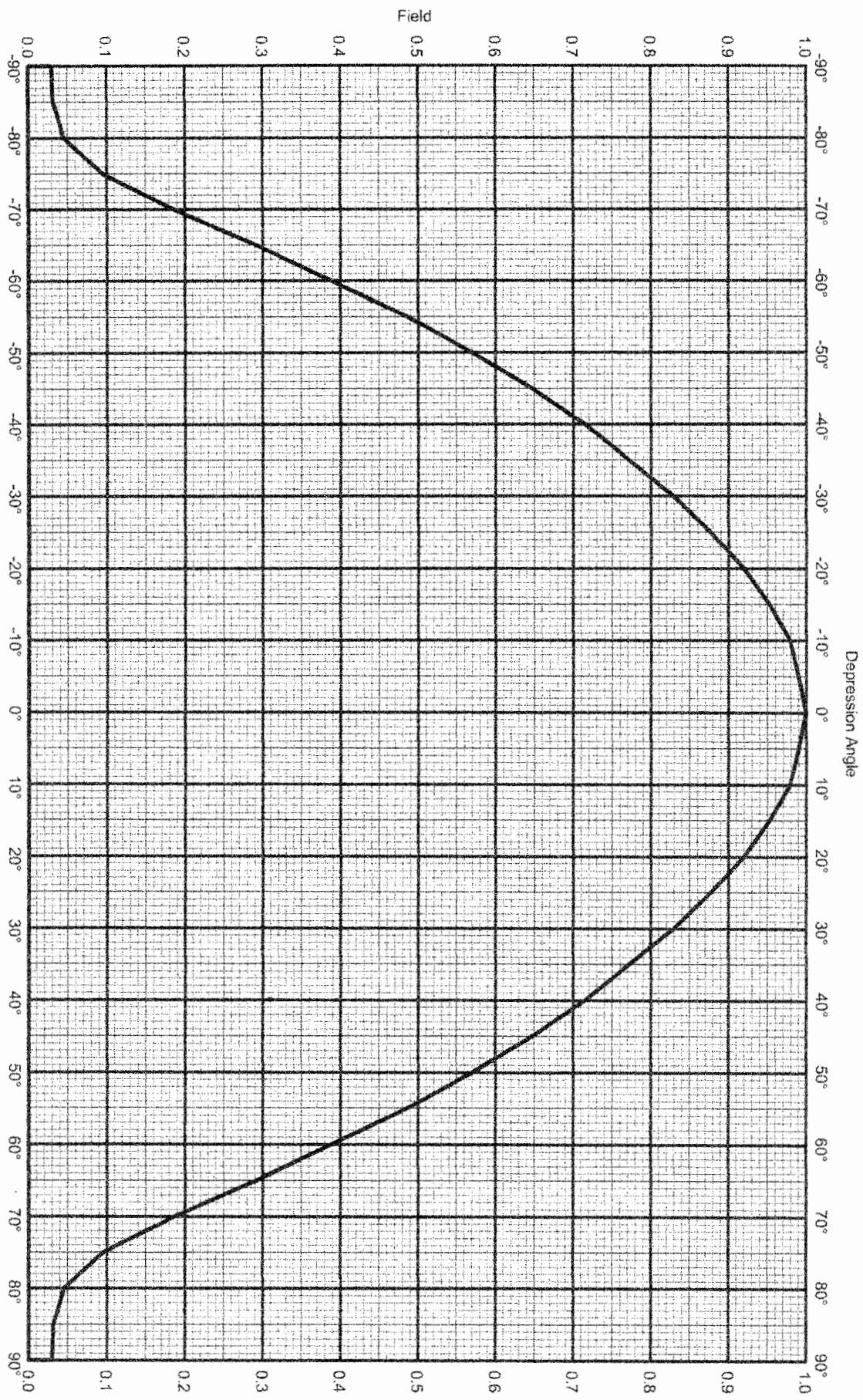
Horizontal plane Pattern

Any single channel 88-108 MHz

Gain: 1.0 dBd (x 1.25)

Circular Polarized

Angle	Field	Rel.dB	dBd	PwrMult	Angle	Field	Rel.dB	dBd	PwrMult
0	1.000	0.00	1.00	1.26	180	0.260	-11.70	-10.70	0.09
5	0.990	-0.09	0.91	1.23	185	0.258	-11.76	-10.76	0.08
10	0.979	-0.18	0.82	1.21	190	0.250	-12.04	-11.04	0.08
15	0.952	-0.42	0.58	1.14	195	0.247	-12.16	-11.16	0.08
20	0.920	-0.72	0.28	1.07	200	0.234	-12.61	-11.61	0.07
25	0.877	-1.14	-0.14	0.97	205	0.221	-13.12	-12.12	0.06
30	0.829	-1.63	-0.63	0.87	210	0.202	-13.87	-12.87	0.05
35	0.772	-2.25	-1.25	0.75	215	0.179	-14.93	-13.93	0.04
40	0.715	-2.91	-1.91	0.64	220	0.142	-16.97	-15.97	0.03
45	0.647	-3.79	-2.79	0.53	225	0.093	-20.60	-19.60	0.01
50	0.570	-4.88	-3.88	0.41	230	0.065	-23.74	-22.74	0.01
55	0.487	-6.26	-5.26	0.30	235	0.053	-25.46	-24.46	0.00
60	0.388	-8.22	-7.22	0.19	240	0.046	-26.78	-25.78	0.00
65	0.292	-10.70	-9.70	0.11	245	0.042	-27.60	-26.60	0.00
70	0.187	-14.58	-13.58	0.04	250	0.037	-28.71	-27.71	0.00
75	0.095	-20.45	-19.45	0.01	255	0.033	-29.54	-28.54	0.00
80	0.045	-26.94	-25.94	0.00	260	0.032	-29.99	-28.99	0.00
85	0.032	-29.99	-28.99	0.00	265	0.031	-30.22	-29.22	0.00
90	0.030	-30.46	-29.46	0.00	270	0.030	-30.46	-29.46	0.00
95	0.031	-30.22	-29.22	0.00	275	0.032	-29.99	-28.99	0.00
100	0.032	-29.99	-28.99	0.00	280	0.045	-26.94	-25.94	0.00
105	0.033	-29.54	-28.54	0.00	285	0.095	-20.45	-19.45	0.01
110	0.037	-28.71	-27.71	0.00	290	0.187	-14.58	-13.58	0.04
115	0.042	-27.60	-26.60	0.00	295	0.292	-10.70	-9.70	0.11
120	0.046	-26.78	-25.78	0.00	300	0.388	-8.22	-7.22	0.19
125	0.053	-25.46	-24.46	0.00	305	0.487	-6.26	-5.26	0.30
130	0.065	-23.74	-22.74	0.01	310	0.570	-4.88	-3.88	0.41
135	0.093	-20.60	-19.60	0.01	315	0.647	-3.79	-2.79	0.53
140	0.142	-16.97	-15.97	0.03	320	0.715	-2.91	-1.91	0.64
145	0.179	-14.93	-13.93	0.04	325	0.772	-2.25	-1.25	0.75
150	0.202	-13.87	-12.87	0.05	330	0.829	-1.63	-0.63	0.87
155	0.221	-13.12	-12.12	0.06	335	0.877	-1.14	-0.14	0.97
160	0.234	-12.61	-11.61	0.07	340	0.920	-0.72	0.28	1.07
165	0.247	-12.16	-11.16	0.08	345	0.952	-0.42	0.58	1.14
170	0.250	-12.04	-11.04	0.08	350	0.979	-0.18	0.82	1.21
175	0.258	-11.76	-10.76	0.08	355	0.990	-0.09	0.91	1.23



CA2-FM/50N/CV Yagi Array

Any single channel 88-108 MHz

Gain: 1.0 dBd (x 1.25)

Circular Polarized

Vertical plane Pattern

KTS - SAN ANTONIO 210-832-0883 gkeener1@satax-rr.com
KDSP-FM2, BOULDER, CO
PROPOSED HORIZONTAL AND VERTICAL PATTERNS
EXHIBIT 11.2

KATHREIN
SCALA DIVISION

Post Office Box 4580
 Medford, OR 97501 (USA)

Phone: (541) 779-6500
 Fax: (541) 779-3991

<http://www.kathrein-scala.com>

KATHREIN
SCALA DIVISION

CA2-FM/50N/CV Yagi Array

Vertical plane Pattern

Any single channel 88-108 MHz

Gain: 1.0 dBd (x 1.25)

Circular Polarized

Angle	Field	Rel.dB	dBd	PwrMult	Angle	Field	Rel.dB	dBd	PwrMult
-90	0.030	-30.46	-29.46	0.00	-45	0.647	-3.79	-2.79	0.53
-89	0.030	-30.36	-29.36	0.00	-44	0.660	-3.60	-2.60	0.55
-88	0.031	-30.27	-29.27	0.00	-43	0.674	-3.43	-2.43	0.57
-87	0.031	-30.17	-29.17	0.00	-42	0.688	-3.25	-2.25	0.60
-86	0.031	-30.08	-29.08	0.00	-41	0.701	-3.08	-2.08	0.62
-85	0.032	-29.99	-28.99	0.00	-40	0.715	-2.91	-1.91	0.64
-84	0.034	-29.29	-28.29	0.00	-39	0.726	-2.78	-1.78	0.66
-83	0.037	-28.64	-27.64	0.00	-38	0.738	-2.64	-1.64	0.69
-82	0.040	-28.03	-27.03	0.00	-37	0.749	-2.51	-1.51	0.71
-81	0.042	-27.47	-26.47	0.00	-36	0.760	-2.38	-1.38	0.73
-80	0.045	-26.94	-25.94	0.00	-35	0.772	-2.25	-1.25	0.75
-79	0.055	-25.19	-24.19	0.00	-34	0.783	-2.12	-1.12	0.77
-78	0.065	-23.74	-22.74	0.01	-33	0.795	-2.00	-1.00	0.80
-77	0.075	-22.50	-21.50	0.01	-32	0.806	-1.87	-0.87	0.82
-76	0.085	-21.41	-20.41	0.01	-31	0.818	-1.75	-0.75	0.84
-75	0.095	-20.45	-19.45	0.01	-30	0.829	-1.63	-0.63	0.87
-74	0.113	-18.91	-17.91	0.02	-29	0.839	-1.53	-0.53	0.89
-73	0.132	-17.61	-16.61	0.02	-28	0.848	-1.43	-0.43	0.91
-72	0.150	-16.48	-15.48	0.03	-27	0.858	-1.33	-0.33	0.93
-71	0.168	-15.48	-14.48	0.04	-26	0.867	-1.24	-0.24	0.95
-70	0.187	-14.58	-13.58	0.04	-25	0.877	-1.14	-0.14	0.97
-69	0.208	-13.65	-12.65	0.05	-24	0.885	-1.06	-0.06	0.99
-68	0.229	-12.82	-11.82	0.07	-23	0.894	-0.97	0.03	1.01
-67	0.250	-12.05	-11.05	0.08	-22	0.903	-0.89	0.11	1.03
-66	0.271	-11.35	-10.35	0.09	-21	0.911	-0.81	0.19	1.05
-65	0.292	-10.70	-9.70	0.11	-20	0.920	-0.72	0.28	1.07
-64	0.311	-10.14	-9.14	0.12	-19	0.927	-0.66	0.34	1.08
-63	0.330	-9.62	-8.62	0.14	-18	0.933	-0.60	0.40	1.10
-62	0.350	-9.13	-8.13	0.15	-17	0.939	-0.54	0.46	1.11
-61	0.369	-8.66	-7.66	0.17	-16	0.946	-0.48	0.52	1.13
-60	0.388	-8.22	-7.22	0.19	-15	0.952	-0.42	0.58	1.14
-59	0.408	-7.79	-6.79	0.21	-14	0.958	-0.37	0.63	1.15
-58	0.428	-7.38	-6.38	0.23	-13	0.963	-0.33	0.67	1.17
-57	0.447	-6.99	-5.99	0.25	-12	0.969	-0.28	0.72	1.18
-56	0.467	-6.61	-5.61	0.27	-11	0.974	-0.23	0.77	1.19
-55	0.487	-6.26	-5.26	0.30	-10	0.979	-0.18	0.82	1.21
-54	0.503	-5.96	-4.96	0.32	-9	0.981	-0.16	0.84	1.21
-53	0.520	-5.68	-4.68	0.34	-8	0.984	-0.14	0.86	1.22
-52	0.537	-5.41	-4.41	0.36	-7	0.986	-0.13	0.87	1.22
-51	0.553	-5.14	-4.14	0.39	-6	0.988	-0.11	0.89	1.23
-50	0.570	-4.88	-3.88	0.41	-5	0.990	-0.09	0.91	1.23
-49	0.585	-4.65	-3.65	0.43	-4	0.992	-0.07	0.93	1.24
-48	0.601	-4.43	-3.43	0.45	-3	0.994	-0.05	0.95	1.24
-47	0.616	-4.21	-3.21	0.48	-2	0.996	-0.03	0.97	1.25
-46	0.631	-3.99	-2.99	0.50	-1	0.998	-0.02	0.98	1.25
					0	1.000	0.00	1.00	1.26

PROPOSED HORIZONTAL AND VERTICAL PATTERNS



CA2-FM/50N/CV Yagi Array

Vertical plane Pattern

Any single channel 88-108 MHz

Gain: 1.0 dBd (x 1.25)

Circular Polarized

Angle	Field	Rel.dB	dBd	PwrMult	Angle	Field	Rel.dB	dBd	PwrMult
0	1.000	0.00	1.00	1.26	45	0.647	-3.79	-2.79	0.53
1	0.998	-0.02	0.98	1.25	46	0.631	-3.99	-2.99	0.50
2	0.996	-0.03	0.97	1.25	47	0.616	-4.21	-3.21	0.48
3	0.994	-0.05	0.95	1.24	48	0.601	-4.43	-3.43	0.45
4	0.992	-0.07	0.93	1.24	49	0.585	-4.65	-3.65	0.43
5	0.990	-0.09	0.91	1.23	50	0.570	-4.88	-3.88	0.41
6	0.988	-0.11	0.89	1.23	51	0.553	-5.14	-4.14	0.39
7	0.986	-0.13	0.87	1.22	52	0.537	-5.41	-4.41	0.36
8	0.984	-0.14	0.86	1.22	53	0.520	-5.68	-4.68	0.34
9	0.981	-0.16	0.84	1.21	54	0.503	-5.96	-4.96	0.32
10	0.979	-0.18	0.82	1.21	55	0.487	-6.26	-5.26	0.30
11	0.974	-0.23	0.77	1.19	56	0.467	-6.61	-5.61	0.27
12	0.969	-0.28	0.72	1.18	57	0.447	-6.99	-5.99	0.25
13	0.963	-0.33	0.67	1.17	58	0.428	-7.38	-6.38	0.23
14	0.958	-0.37	0.63	1.15	59	0.408	-7.79	-6.79	0.21
15	0.952	-0.42	0.58	1.14	60	0.388	-8.22	-7.22	0.19
16	0.946	-0.48	0.52	1.13	61	0.369	-8.66	-7.66	0.17
17	0.939	-0.54	0.46	1.11	62	0.350	-9.13	-8.13	0.15
18	0.933	-0.60	0.40	1.10	63	0.330	-9.62	-8.62	0.14
19	0.927	-0.66	0.34	1.08	64	0.311	-10.14	-9.14	0.12
20	0.920	-0.72	0.28	1.07	65	0.292	-10.70	-9.70	0.11
21	0.911	-0.81	0.19	1.05	66	0.271	-11.35	-10.35	0.09
22	0.903	-0.89	0.11	1.03	67	0.250	-12.05	-11.05	0.08
23	0.894	-0.97	0.03	1.01	68	0.229	-12.82	-11.82	0.07
24	0.885	-1.06	-0.06	0.99	69	0.208	-13.65	-12.65	0.05
25	0.877	-1.14	-0.14	0.97	70	0.187	-14.58	-13.58	0.04
26	0.867	-1.24	-0.24	0.95	71	0.168	-15.48	-14.48	0.04
27	0.858	-1.33	-0.33	0.93	72	0.150	-16.48	-15.48	0.03
28	0.848	-1.43	-0.43	0.91	73	0.132	-17.61	-16.61	0.02
29	0.839	-1.53	-0.53	0.89	74	0.113	-18.91	-17.91	0.02
30	0.829	-1.63	-0.63	0.87	75	0.095	-20.45	-19.45	0.01
31	0.818	-1.75	-0.75	0.84	76	0.085	-21.41	-20.41	0.01
32	0.806	-1.87	-0.87	0.82	77	0.075	-22.50	-21.50	0.01
33	0.795	-2.00	-1.00	0.80	78	0.065	-23.74	-22.74	0.01
34	0.783	-2.12	-1.12	0.77	79	0.055	-25.19	-24.19	0.00
35	0.772	-2.25	-1.25	0.75	80	0.045	-26.94	-25.94	0.00
36	0.760	-2.38	-1.38	0.73	81	0.042	-27.47	-26.47	0.00
37	0.749	-2.51	-1.51	0.71	82	0.040	-28.03	-27.03	0.00
38	0.738	-2.64	-1.64	0.69	83	0.037	-28.64	-27.64	0.00
39	0.726	-2.78	-1.78	0.66	84	0.034	-29.29	-28.29	0.00
40	0.715	-2.91	-1.91	0.64	85	0.032	-29.99	-28.99	0.00
41	0.701	-3.08	-2.08	0.62	86	0.031	-30.08	-29.08	0.00
42	0.688	-3.25	-2.25	0.60	87	0.031	-30.17	-29.17	0.00
43	0.674	-3.43	-2.43	0.57	88	0.031	-30.27	-29.27	0.00
44	0.660	-3.60	-2.60	0.55	89	0.030	-30.36	-29.36	0.00
					90	0.030	-30.46	-29.46	0.00



COMMUNITY RADIO FOR NORTHERN COLORADO

1901 56th Avenue, Suite 200
Greeley, CO 80634-2950

p: 970-378-2579
f: 970-378-2580
www.kunc.org

Sept 7, 2011

Larry Selzle, Chief Engineer
KUNC Community Radio for Northern Colorado
1901 56th Avenue, Suite 200
Greeley, Colorado 80634

Greg Benson, Chief Engineer
KDSP Front Range Sports Network
10200 E. Girard Bldg B #150
Denver, Colorado 80231

To whom it may concern:

Front Range Sports Network, licensee of station KDSP operating on Ch 272A Greenwood Village, proposes to construct a booster station to serve portions of Boulder County from a site at 6091 Marshall Road in rural Boulder County. KUNC operates translator station K274BW Berthoud. The proposed KDSP booster station is a second adjacent channel and lies at the edge of the 60 dBu contour for K274BW. I have studied the map of the proposed booster station. There is almost no population that may be subjected to interference. Coverage maps and tests conducted by KUNC indicate people in this area receive a better signal from KUNC's main transmitter at 91.5 MHz. Therefore, KUNC agrees to accept any real or predicted interference the proposed booster station may cause.

Please feel free to contact me if you have further questions.

Larry Selzle


KUNC Chief Engineer

KTS - SAN ANTONIO	210-832-0883	gkeener1@satx.rr.com
KDSP-FM2, BOULDER, CO		EXHIBIT 11.3
COMMUNITY RADIO LETTER		

KTS - SAN ANTONIO 210-832-0883 gkeener1@satx.rr.com
KDSP-FM2, BOULDER, CO EXHIBIT 11.4
PROPOSAL INTO K274BW - CONTOUR MAP

