

## **ENGINEERING STATEMENT**

Concerning the Application of  
Garfield County  
To Make a Minor Change to Licensed Facility  
K240BZ  
A Commercial FM Translator  
Serving Rural Garfield County, Utah

June 2004

**Channel 242D**

**0.01 kW ERP H & V (DA)**

This engineering statement supports the application filed by Garfield County to make a minor change to K240BZ, a commercial FM translator serving Rural Garfield, Utah. Garfield County proposes to move the transmitter, increase antenna height above ground, change the primary station to KMGR, move to channel 242 and replace the existing directional, vertically polarized antenna with a Scala CA5-150/CP, 1-bay circularly polarized antenna, orientated 180° True North.

Page #2 of this exhibit is an azimuthal chart and table of the proposed directional antenna.

Page #3 is a distance to 60 dBu contour table of the proposed facility. The NGDC 30 sec terrain database was used to determine HAAT along each of 12 cardinal radials. Page #4 is a map of the 60 dBu contours of the proposed facility and the licensed translator. As the contours intersect, this is a minor change.

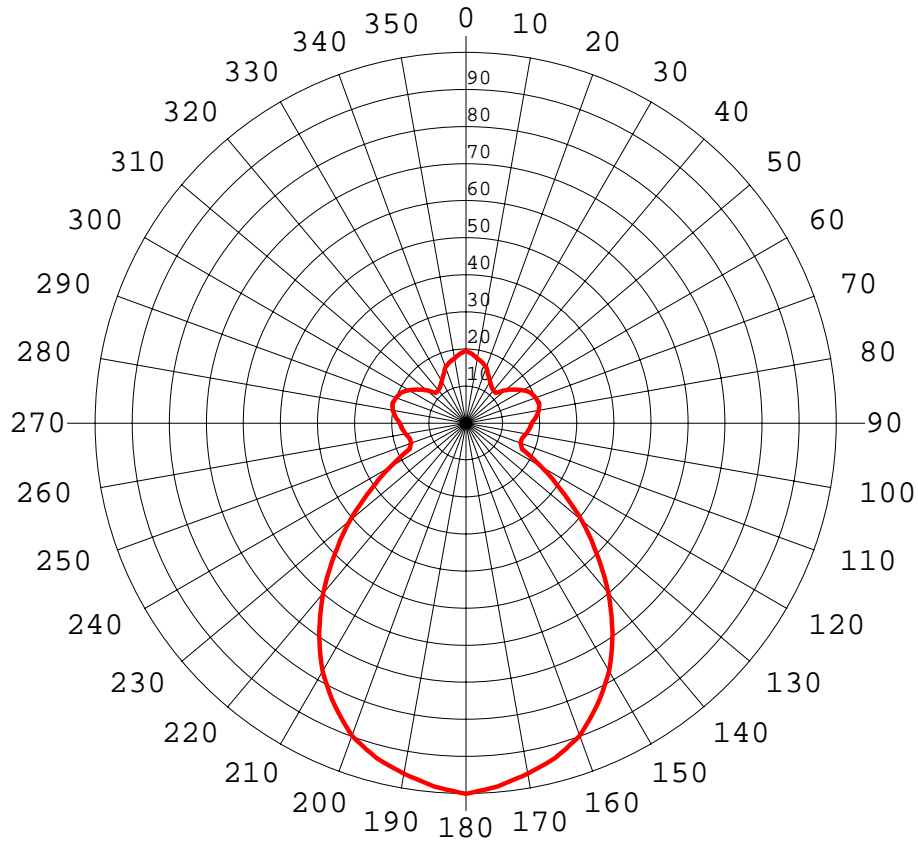
Exhibit #12 is a computer generated channel study, defining the relationship between the revised K240BZ and adjacent stations.

Exhibit #16 is a statement regarding compliance with the Commission's RF emissions standards.

Page #5 of this exhibit is a declaration made by the preparer, Kate Michler, attesting to her qualifications.

# K240BZ - New Pattern

Ex #1, Pg #2



Azi	Rel	dBk	kW	dB	Azi	Rel	dBk	kW	dB
0	1.000	-20.00	0.010	0.00	180	0.195	-34.20	0.000	-14.20
10	0.960	-20.35	0.009	-0.35	190	0.177	-35.04	0.000	-15.04
20	0.898	-20.93	0.008	-0.93	200	0.160	-35.92	0.000	-15.92
30	0.773	-22.24	0.006	-2.24	210	0.130	-37.72	0.000	-17.72
40	0.598	-24.47	0.004	-4.47	220	0.115	-38.79	0.000	-18.79
50	0.407	-27.81	0.002	-7.81	230	0.138	-37.20	0.000	-17.20
60	0.235	-32.58	0.001	-12.58	240	0.177	-35.04	0.000	-15.04
70	0.157	-36.08	0.000	-16.08	250	0.200	-33.98	0.000	-13.98
80	0.165	-35.65	0.000	-15.65	260	0.200	-33.98	0.000	-13.98
90	0.178	-34.99	0.000	-14.99	270	0.178	-34.99	0.000	-14.99
100	0.200	-33.98	0.000	-13.98	280	0.165	-35.65	0.000	-15.65
110	0.200	-33.98	0.000	-13.98	290	0.157	-36.08	0.000	-16.08
120	0.177	-35.04	0.000	-15.04	300	0.235	-32.58	0.001	-12.58
130	0.138	-37.20	0.000	-17.20	310	0.407	-27.81	0.002	-7.81
140	0.115	-38.79	0.000	-18.79	320	0.598	-24.47	0.004	-4.47
150	0.130	-37.72	0.000	-17.72	330	0.773	-22.24	0.006	-2.24
160	0.160	-35.92	0.000	-15.92	340	0.898	-20.93	0.008	-0.93
170	0.177	-35.04	0.000	-15.04	350	0.960	-20.35	0.009	-0.35

Rotation Angle = 180

Scala CA5-150/CP

Doug Vernier Telecommunications Consultants

N. Lat. = 38 32 30 W. Lng. = 112 03 31

HAAT and Distance to Contour - FCC Method - 03 Arc. Sec.

K240BZ - Minor Change - Garfield County

Azi.	AV EL	HAAT	ERP kW	dBk	Field	60-F5
000	2272.8	1077.2	0.0004	-34.34	0.192	3.97
030	2990.5	359.5	0.0002	-37.47	0.134	2.66
060	2923.1	426.9	0.0003	-35.26	0.173	3.42
090	2586.9	763.1	0.0002	-36.17	0.155	3.25
120	2565.0	785.0	0.0004	-33.81	0.204	4.17
150	2704.7	645.3	0.0054	-22.70	0.733	11.52
180	2937.4	412.6	0.0099	-20.04	0.995	11.69
210	2738.0	612.0	0.0049	-23.11	0.699	10.93
240	2308.0	1042.0	0.0003	-34.68	0.184	3.84
270	2157.5	1192.5	0.0003	-35.95	0.159	3.40
300	1921.1	1428.9	0.0003	-35.50	0.168	3.56
330	1868.6	1481.4	0.0002	-37.23	0.138	2.99

Ave El = 2497.81 M HAAT= 852.19 M AMSL= 3350

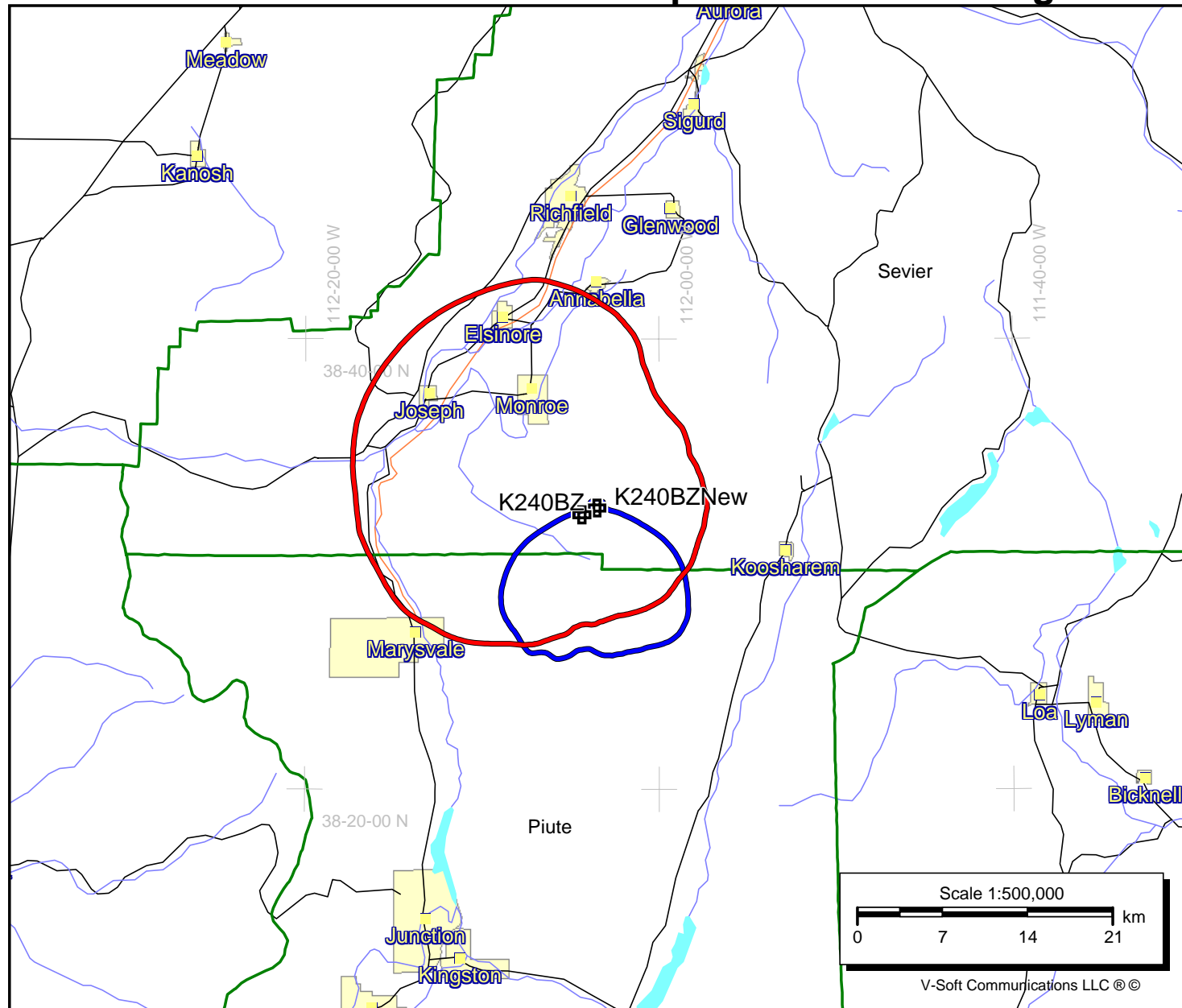
# K240BZ Proposed 60 dBu Change Area

**K240BZNew**  
 Modified Facility  
 Latitude: 38-32-30 N  
 Longitude: 112-03-31 W  
 ERP: 0.01 kW  
 Channel: 242  
 Frequency: 96.3 MHz  
 AMSL Height: 3350.0 m  
 Elevation: 3294.43 m  
 Horiz. Pattern: Directional  
 Vert. Pattern: No  
 Prop Model: None

**K240BZ**  
 BLFT19941109TD  
 Latitude: 38-32-12 N  
 Longitude: 112-04-22 W  
 ERP: 0.01 kW  
 Channel: 240  
 Frequency: 95.9 MHz  
 AMSL Height: 3431.0 m  
 Elevation: 3200.56 m  
 Horiz. Pattern: Directional  
 Vert. Pattern: No

June 10, 2004

  
**Doug Vernier**  
 721 West 1st Street, Suite A  
 Cedar Falls, Iowa 50613  
 Telecommunications Consultants



**Declaration:**

I, Katherine A. Michler, have received a Bachelor of Science degree from the University of Northern Iowa, and;

That, I declare that I have received training as a technical consultant as a member of the staff of Doug Vernier Telecommunications Consultants, and;

That, I have apprenticed under Douglas Vernier for over six years, and;

That, he has been active in broadcast consulting for over 25 years, and;

That, his qualifications are a matter of record with the Federal Communications Commission, and;

That, I am an Associate Member (#20792) of the Society of Broadcast Engineers, Indianapolis, Indiana, and;

That, the consulting firm of Doug Vernier Telecommunications Consultants has been retained by Garfield County, Utah.;

That, I have personally prepared these engineering showings, the technical information contained in same and the facts stated within are true to my knowledge, and;

That, under penalty of perjury, I declare that the foregoing is correct.

Katherine A. Michler Katherine A. Michler

Executed on June 10, 2004