



**EXHIBIT #1  
ENGINEERING STATEMENT**

Concerning the Application of  
Sanpete County Broadcasting Company  
To Make a Minor Change  
To Translator K257AZ  
BLFT19820413II  
In Richfield, Utah

August 2002

CH 259

0.076 kW H & V DA

This engineering statement supports the application of Sanpete County Broadcasting Company to make a minor Change to K257AZ (BLFT19820413II), a translator in Richfield, Utah for primary station KLGL.

The applicant proposes to change channels from 257 to 259, modify its directional antenna pattern and change its primary station from KMXU to KLGL. The existing Scala HDCA-10 antenna will be replaced by a Scala CA5-150C, oriented at 301° True. An azimuth chart and table of relative field values can be found on pages 3-4 of this exhibit. No other changes are being proposed.

**Exhibit #10** of this exhibit is a computer generated map of the translator's proposed one mV/m F(50-50) contour and the one mV/m contour of KLGL, the primary station, using the U.S.G.S. world map database. The land area within the contour is 182.5 square kilometers. This figure was determined using numerical calculus<sup>1</sup>. The population within this contour was determined to be 8,986, based on 2000 census block data.

A total of 36 evenly spaced radials were used to determine the antenna height above average terrain. The N.G.D.C. 30 arc second database was employed to determine the elevations along the radials that were averaged using the required four-point interpolation method. The resulting averaged radial antenna heights were employed using the Commission's own TVFMINT algorithm to project the distances to signal

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<sup>1</sup> The distance to the one mV/m signal contour along each of the radial azimuths was squared and then the average of the sum of these distances was calculated. The resulting average radius squared was then multiplied by  $\pi$  to determine the area within the contour.

contours. A tabular listing of the distance to the one mV/m contour can be found on page #2 of Exhibit 10. Included as Page #3 is a table of the distances to contour for the primary station, KLGL.

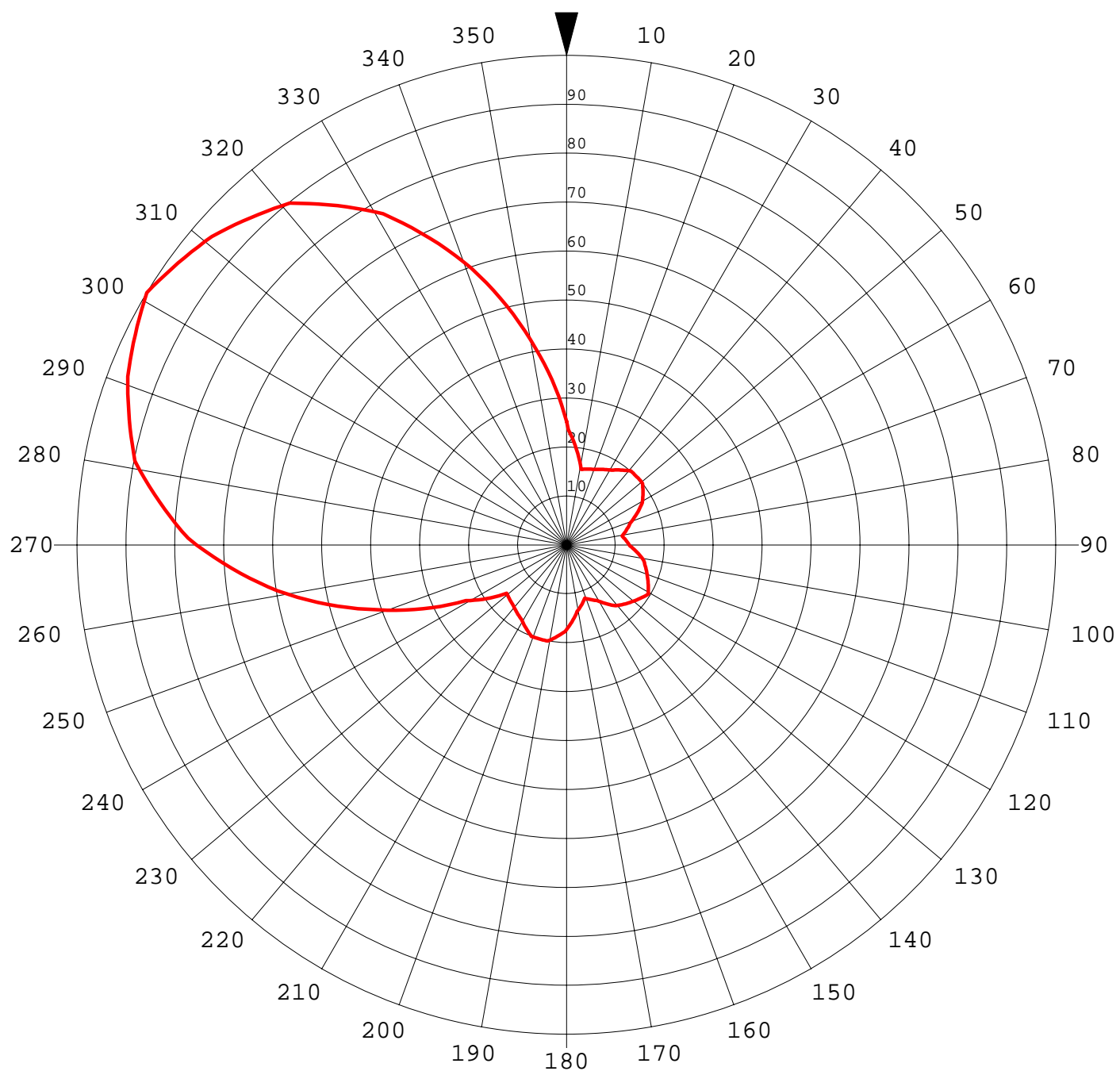
**Exhibit #12** is an Allocation Report. The first page is a computer channel study of all stations having a frequency and distance relationship. The exhibit gives current operating powers, HAAT's bearings and distances. (All distances were computed according to the method described under Section 73.208 of the Commission's Rules.) The second page is a narrative of the methods and conventions used in the report. The applicant, under a separate cover, is applying to change K257BC to channel 259. The licensed facilities are currently co-channel, with no actual interference. Under the concurrent instant proposals, the translators will continue to be co-channel. Although contour overlap exists between the proposed translator and K261BP, there is no population in the interference area. A map depicting the interference area with the nearest population centroid can be found on Page #3.

**Exhibit #16** is an R.F. hazard compliance statement.

Page #5 of **Exhibit #1** is a statement of the qualifications of the preparer.

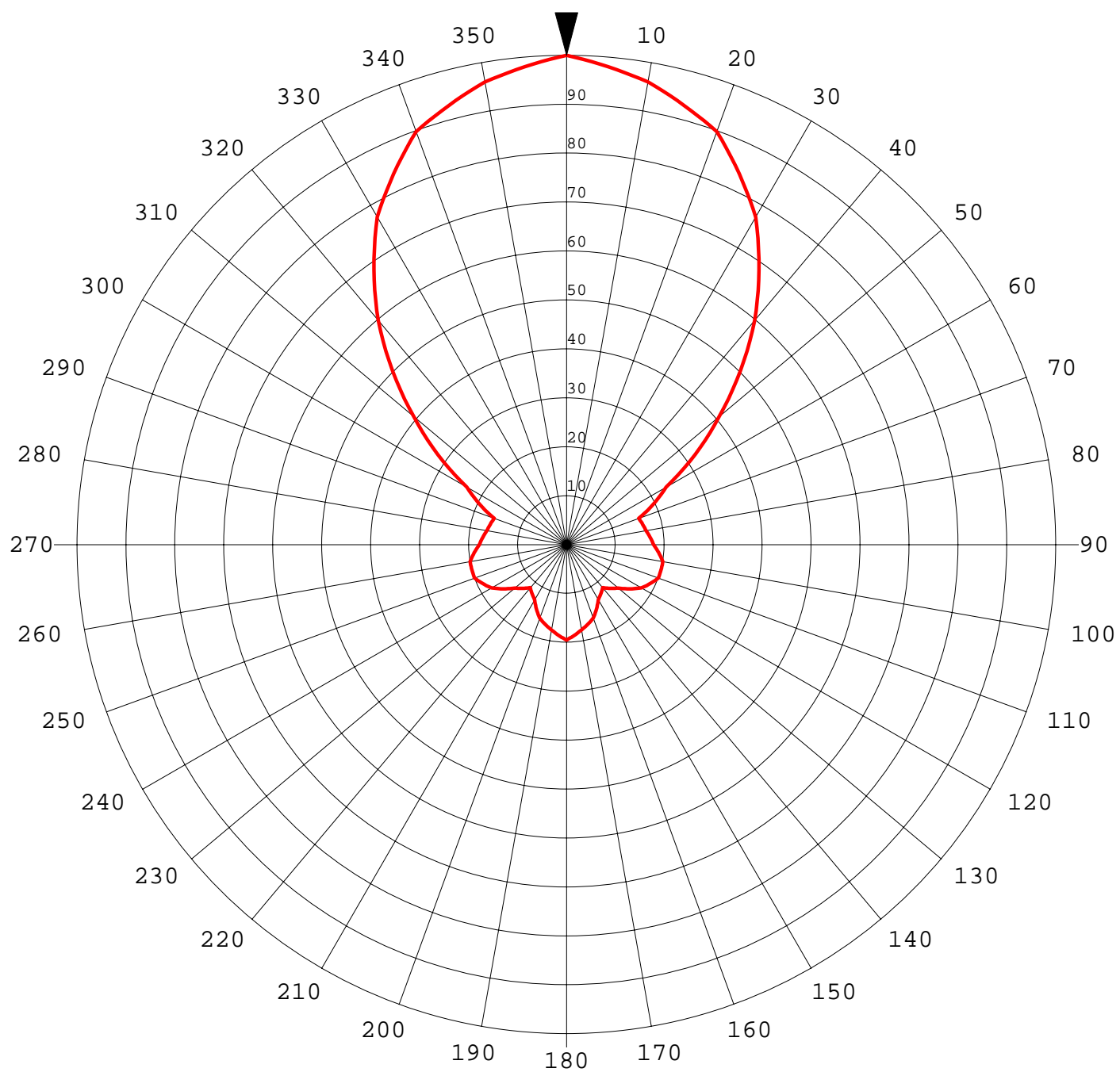
Doug Vernier

# Scala CA5-150-CP



Sanpete County Broadcasting Company

# Scala CA5-150-CP



Sanpete County Broadcasting Company

Azi	Rel	dBk	kW	dB
0	1.000	-11.19	0.076	0.00
5	0.980	-11.37	0.073	-0.18
10	0.960	-11.55	0.070	-0.35
15	0.929	-11.83	0.066	-0.64
20	0.898	-12.13	0.061	-0.93
25	0.836	-12.75	0.053	-1.56
30	0.773	-13.43	0.045	-2.24
35	0.685	-14.47	0.036	-3.28
40	0.598	-15.66	0.027	-4.47
45	0.502	-17.17	0.019	-5.98
50	0.407	-19.00	0.013	-7.81
55	0.321	-21.06	0.008	-9.87
60	0.235	-23.77	0.004	-12.58
65	0.196	-25.35	0.003	-14.15
70	0.157	-27.27	0.002	-16.08
75	0.161	-27.06	0.002	-15.86
80	0.165	-26.84	0.002	-15.65
85	0.172	-26.51	0.002	-15.31
90	0.178	-26.18	0.002	-14.99
95	0.189	-25.66	0.003	-14.47
100	0.200	-25.17	0.003	-13.98
105	0.200	-25.17	0.003	-13.98
110	0.200	-25.17	0.003	-13.98
115	0.189	-25.69	0.003	-14.49
120	0.177	-26.23	0.002	-15.04
125	0.158	-27.25	0.002	-16.05
130	0.138	-28.39	0.001	-17.20
135	0.127	-29.15	0.001	-17.96
140	0.115	-29.98	0.001	-18.79
145	0.123	-29.43	0.001	-18.24
150	0.130	-28.91	0.001	-17.72
155	0.145	-27.96	0.002	-16.77
160	0.160	-27.11	0.002	-15.92
165	0.169	-26.66	0.002	-15.47
170	0.177	-26.23	0.002	-15.04
175	0.186	-25.80	0.003	-14.61

Azi	Rel	dBk	kW	dB
180	0.195	-25.39	0.003	-14.20
185	0.186	-25.80	0.003	-14.61
190	0.177	-26.23	0.002	-15.04
195	0.168	-26.66	0.002	-15.47
200	0.160	-27.11	0.002	-15.92
205	0.145	-27.96	0.002	-16.77
210	0.130	-28.91	0.001	-17.72
215	0.122	-29.43	0.001	-18.24
220	0.115	-29.98	0.001	-18.79
225	0.127	-29.15	0.001	-17.96
230	0.138	-28.39	0.001	-17.20
235	0.158	-27.25	0.002	-16.05
240	0.177	-26.23	0.002	-15.04
245	0.189	-25.69	0.003	-14.49
250	0.200	-25.17	0.003	-13.98
255	0.200	-25.17	0.003	-13.98
260	0.200	-25.17	0.003	-13.98
265	0.189	-25.66	0.003	-14.47
270	0.178	-26.18	0.002	-14.99
275	0.171	-26.51	0.002	-15.31
280	0.165	-26.84	0.002	-15.65
285	0.161	-27.06	0.002	-15.86
290	0.157	-27.27	0.002	-16.08
295	0.196	-25.35	0.003	-14.15
300	0.235	-23.77	0.004	-12.58
305	0.321	-21.06	0.008	-9.87
310	0.407	-19.00	0.013	-7.81
315	0.502	-17.17	0.019	-5.98
320	0.598	-15.66	0.027	-4.47
325	0.685	-14.47	0.036	-3.28
330	0.773	-13.43	0.045	-2.24
335	0.836	-12.75	0.053	-1.56
340	0.898	-12.13	0.061	-0.93
345	0.929	-11.83	0.066	-0.64
350	0.960	-11.55	0.070	-0.35
355	0.980	-11.37	0.073	-0.18

Rotation Angle = 301

**Declaration:**

I, Doug Vernier, declare that I have received training as an engineer from the University of Michigan School of Engineering. That, I have received degrees from the University in the field of Broadcast Telecommunications. That, I have been active in broadcast consulting for over 25 years;

That, I have held a Federal Communications Commission First Class Radiotelephone License continually since 1964. In 1985, this license was reissued by the Commission as a lifetime General Radiotelephone license no. PG-16-16464;

That, I am certified as a Professional Broadcast Engineer (#50258) by the Society of Broadcast Engineers, Indianapolis, Indiana. (Re-certified 11/95.)

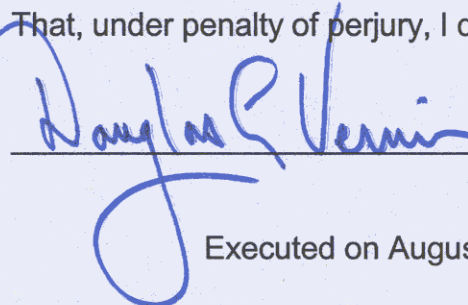
That, my qualifications are a matter of record with the Federal Communications Commission;

That, I have been retained by Sanpete County Broadcasting Co., Manti, Utah and as such have prepared the engineering showings appended hereto;

That, a portion of the exhibits contain herein were prepared by my associate, Kate Michler, under my direct supervision;

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

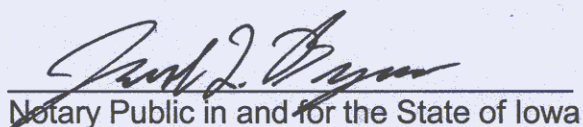
That, under penalty of perjury, I declare that the foregoing is correct.



Douglas L. Vernier

Executed on August 12, 2002

Subscribed and sworn before me this 12th day of August, 2002.



Notary Public in and for the State of Iowa