

EXHIBIT #1
ENGINEERING STATEMENT

Concerning the Application of
The University of Wyoming
To Make a Minor Modification
To FM Translator Construction Permit
K227BB
BNPFT-20030827AMD
Worland, WY

December 2004

Channel 227D

0.075 kW ERP DA

This engineering statement supports the application filed by the University of Wyoming to make a minor modification to a construction permit, BNPFT-20030827AMD, K227BB, for an FM translator serving Worland, Wyoming. The applicant proposes to decrease antenna height above ground and increase power.

Under the instant proposal, the off-air audio signal of primary station KUWT, channel 217, Thermopolis, will be delivered to a type-approved transmitter. This unit will deliver 0.059 kW to the input of a Scala FMV. The antenna has a power gain of 1.26 resulting in an effective radiated power of 0.075 kW, polarized vertically. Information regarding the directional antenna is found on Page #3.

A total of 12 evenly spaced radials were used to determine the antenna height above average terrain. The highest radial of the 12 was used to determine the maximum effective radiated power. The USGS 30 arc-second terrain elevation 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 contours. A tabular listing of the distance to the 1 mV/m contour can be found on page #4 of this exhibit. The highest HAAT of the 12 cardinal radials is 205.9 meters at 330°. The relative field value at that azimuth is 0.735, resulting in an ERP of 0.0405 along that radial, well below the maximum of 0.062 watts for 205.9 meters HAAT. A coverage map can be found on page #5. The change area is depicted on the map on Page #6.

Exhibit #12 is an Allocation Study showing that no interference will be caused any existing licenses, construction permits or allocations. 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.) Page #2 of this exhibit is an explanation of the methods used.

The proposed station is not within 320 kilometers of the US border with Canada or Mexico. The proposed facility is okay with respect to AM stations, FCC monitoring stations, Table Mountain and the West Virginia Quiet Zone.

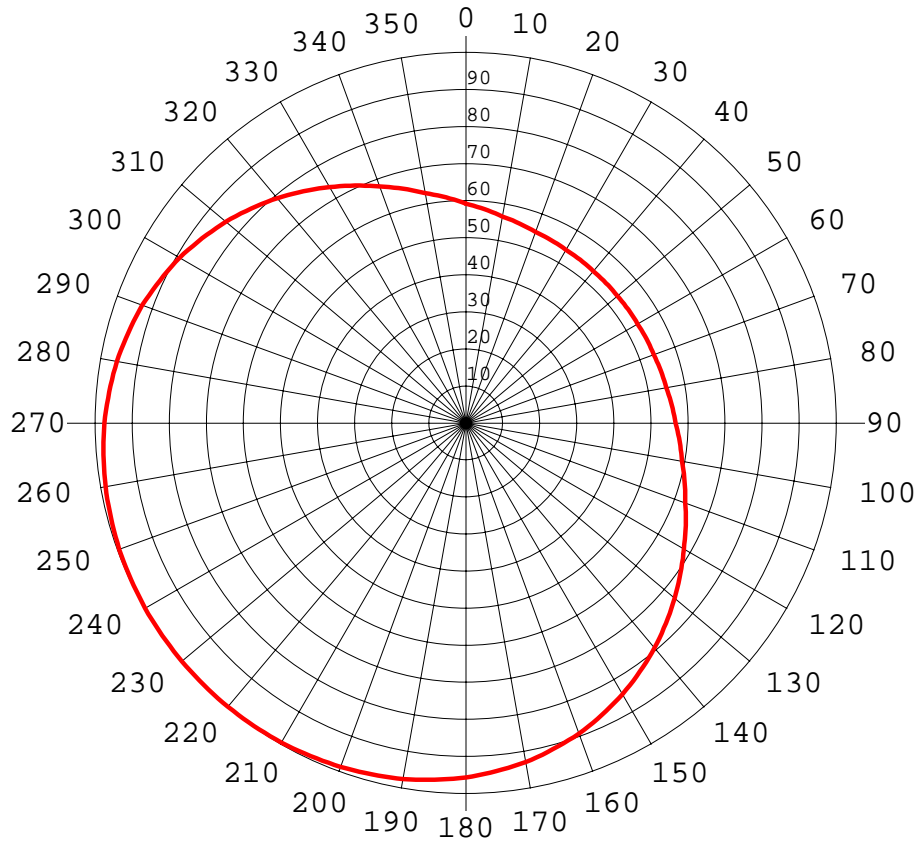
As the proposed ERP is less than 100 watts, an environmental study was deemed unnecessary.

Page #7 of Exhibit #1 is a statement of the qualifications of the preparer.

Kate Michler

Scala FMV @ 230°

Ex #1, Pg #3



Azi	Rel	dBk	kW	dB	Azi	Rel	dBk	kW	dB
0	1.000	-11.25	0.075	0.00	180	0.534	-16.70	0.021	-5.45
10	0.999	-11.26	0.075	-0.01	190	0.535	-16.68	0.021	-5.43
20	0.995	-11.29	0.074	-0.04	200	0.540	-16.60	0.022	-5.35
30	0.987	-11.36	0.073	-0.11	210	0.549	-16.46	0.023	-5.21
40	0.975	-11.47	0.071	-0.22	220	0.566	-16.19	0.024	-4.94
50	0.956	-11.64	0.069	-0.39	230	0.592	-15.80	0.026	-4.55
60	0.929	-11.89	0.065	-0.64	240	0.630	-15.26	0.030	-4.01
70	0.892	-12.24	0.060	-0.99	250	0.679	-14.61	0.035	-3.36
80	0.845	-12.71	0.054	-1.46	260	0.735	-13.92	0.041	-2.67
90	0.792	-13.27	0.047	-2.03	270	0.792	-13.27	0.047	-2.03
100	0.735	-13.92	0.041	-2.67	280	0.845	-12.71	0.054	-1.46
110	0.679	-14.61	0.035	-3.36	290	0.892	-12.24	0.060	-0.99
120	0.630	-15.26	0.030	-4.01	300	0.929	-11.89	0.065	-0.64
130	0.592	-15.80	0.026	-4.55	310	0.956	-11.64	0.069	-0.39
140	0.566	-16.19	0.024	-4.94	320	0.975	-11.47	0.071	-0.22
150	0.549	-16.46	0.023	-5.21	330	0.987	-11.36	0.073	-0.11
160	0.540	-16.60	0.022	-5.35	340	0.995	-11.29	0.074	-0.04
170	0.535	-16.68	0.021	-5.43	350	0.999	-11.26	0.075	-0.01

Rotation Angle = 230

University of Wyoming
K227BB

N. Lat. = 44 04 00 W. Lng. = 107 51 50
 HAAT and Distance to Contour - FCC Method - 30 Arc. Sec.
 K227BB, Minor Modification to BNPFT-20030827AMD
 Azi. AV EL HAAT ERP kW Field 60-F5

000	1314.7	125.3	0.0263	0.592	8.25
030	1319.0	121.0	0.0219	0.540	7.75
060	1348.9	91.1	0.0215	0.535	6.70
090	1371.5	68.5	0.0240	0.566	5.96
120	1379.2	60.8	0.0346	0.679	6.15
150	1382.7	57.3	0.0536	0.845	6.65
180	1315.0	125.0	0.0685	0.956	10.45
210	1273.9	166.1	0.0743	0.995	12.36
240	1252.9	187.1	0.0749	0.999	13.13
270	1276.4	163.6	0.0713	0.975	12.14
300	1275.0	165.0	0.0597	0.892	11.69
330	1234.1	205.9	0.0405	0.735	11.85

Max Pwr for 205.9m is 62 watts.

Additional Radials: (Not Considered in Average):

230	1243.1	196.9	0.0750	1.000	13.44
050	1345.5	94.5	0.0214	0.534	6.83

Ave El = 1311.95 M HAAT= 128.05 M AMSL= 1440

K227BB - Proposed 60 dBu Coverage**K227BB.C**

BNPFT-20030827AMD

Latitude: 44-04-00 N

Longitude: 107-51-50 W

ERP: 0.075 kW

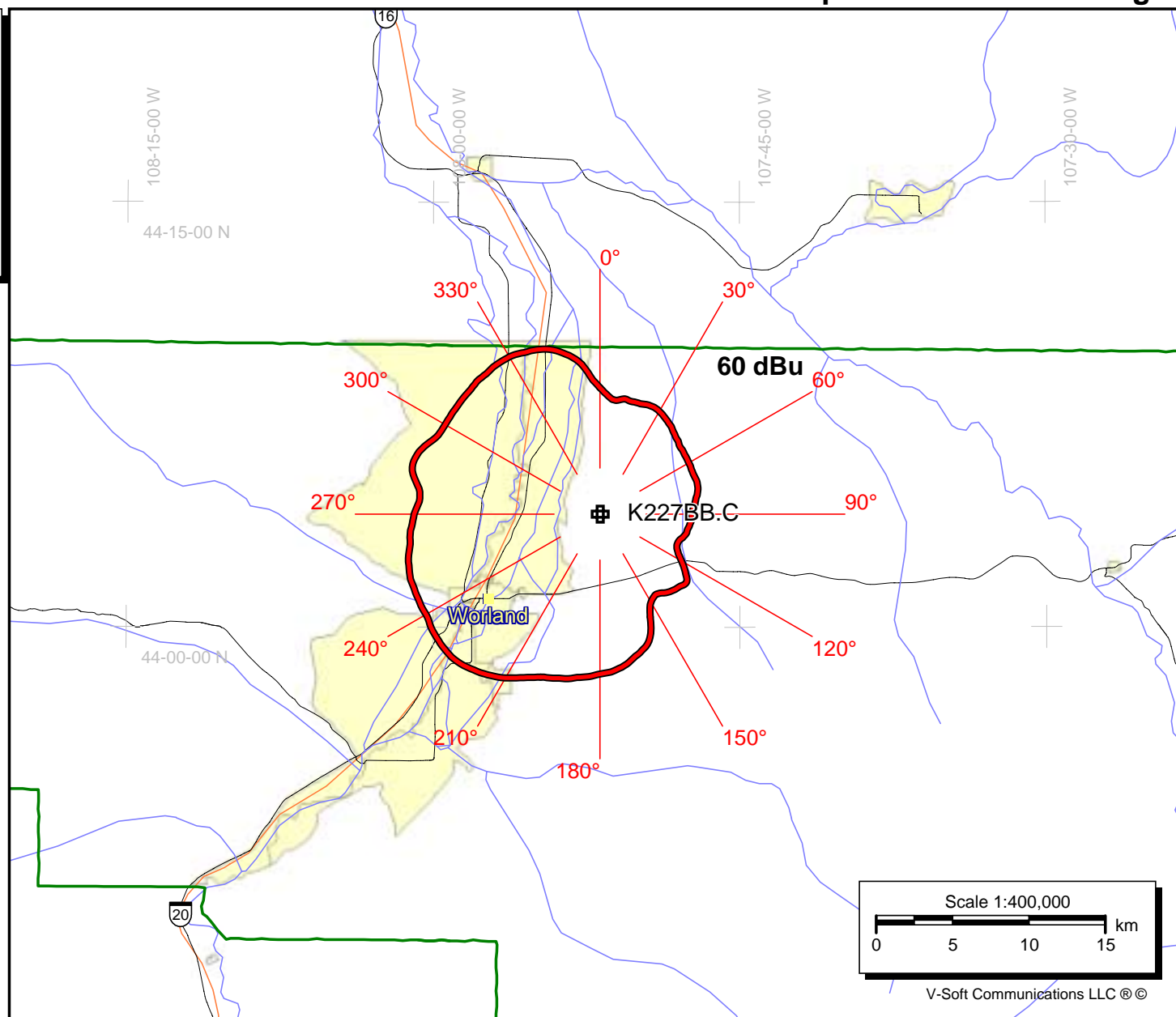
Channel: 227

Frequency: 93.3 MHz

AMSL Height: 1440.0 m

Horiz. Pattern: Directional

Vert. Pattern: No

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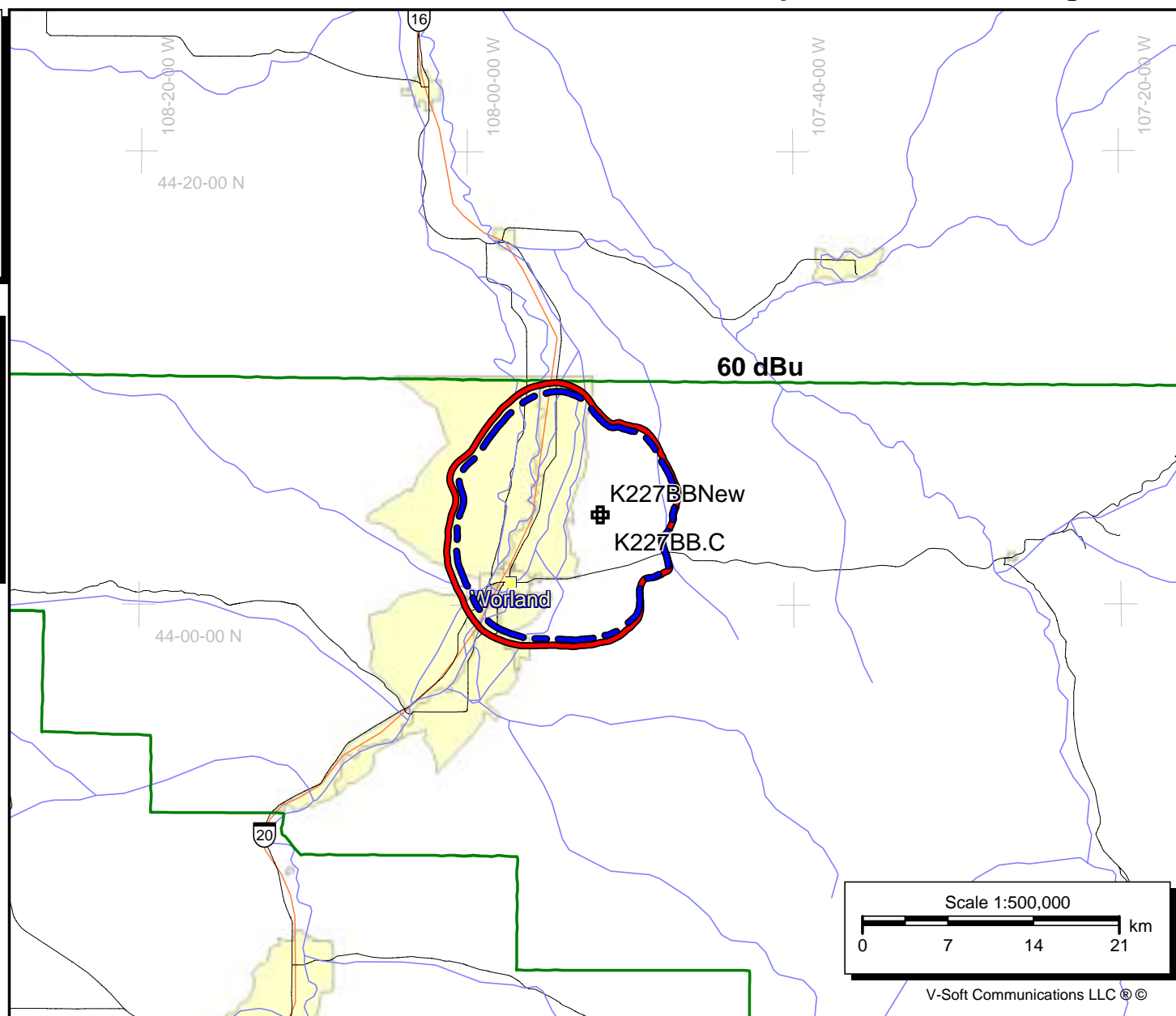
K227BB - Proposed 60 dBu Change Area**K227BBNew**

Latitude: 44-04-00 N
 Longitude: 107-51-50 W
 ERP: 0.075 kW
 Channel: 227
 Frequency: 93.3 MHz
 AMSL Height: 1440.0 m
 Horiz. Pattern: Directional
 Vert. Pattern: No

K227BB.C

BNPFT20030827AMD
 Latitude: 44-04-00 N
 Longitude: 107-51-50 W
 ERP: 0.05 kW
 Channel: 227
 Frequency: 93.3 MHz
 AMSL Height: 1453.0 m
 Horiz. Pattern: Directional
 Vert. Pattern: No

December 3, 2004



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 seven years, and;

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

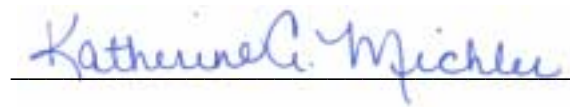
That, his qualifications are a matter of record with the Federal Communications Commission, and;

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 the University of Wyoming, Laramie, WY;

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

Executed on December 3, 2004