

EXHIBIT #1
ENGINEERING STATEMENT

Concerning the Application of
Vermont Public Radio
To Construct a New FM Station
To Serve Brighton, Vermont
Long Form – BSFH-20050811AFD

March 2006

CH 295A

1.42 kW H & V DA

This engineering statement supports the application filed by Vermont Public Radio to construct a new FM station to serve Brighton, Vermont on Channel 295.

Latitude	44-47-02
Longitude	71-53-14
Antenna HAG	14.2 m
Antenna AMSL	691 m
Antenna HAAT	207 m
Effective Radiated Power	1.42 kW
Horizontal Pattern	Directional

Pages 3-4 contain information about the proposed directional antenna pattern.

A total of 8 evenly spaced radials were used to determine the antenna height above average terrain. 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 #5 of this exhibit.

As stated in **Exhibit #22**, the proposed facility complies with Section 73.203, Availability of Channels.

Exhibit #23 consists of a map of the 60 and 70 dBu coverage contours of the proposed facility. The city of license, Brighton, is fully encompassed by the 70 dBu contour.

Exhibit #24 is a description of the main studio location.

A minimum spacing requirement study is attached as **Exhibit #25**. All domestic spacing requirements are met, except with regard to first adjacent station WEVC, Gorham, New Hampshire.

Exhibit #29 is a contour overlap study, using contour protection under Section 73.215. 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. Pages 3-9 are a map and FMOVER table of the proposed facility's relationship with WEVC.

The proposed station is 26.15 kilometers from the US border with Canada. Page #6 of this exhibit (Ex #1) is a map of the proposed facility's contour relationship with first adjacent Canadian station CBMZ-FM. There is no prohibitive contour overlap.

The Mexican border is more than 320 kilometers in distance. The proposed facility is okay with respect to AM stations, FCC monitoring stations, Table Mountain and the West Virginia Quiet Zone.

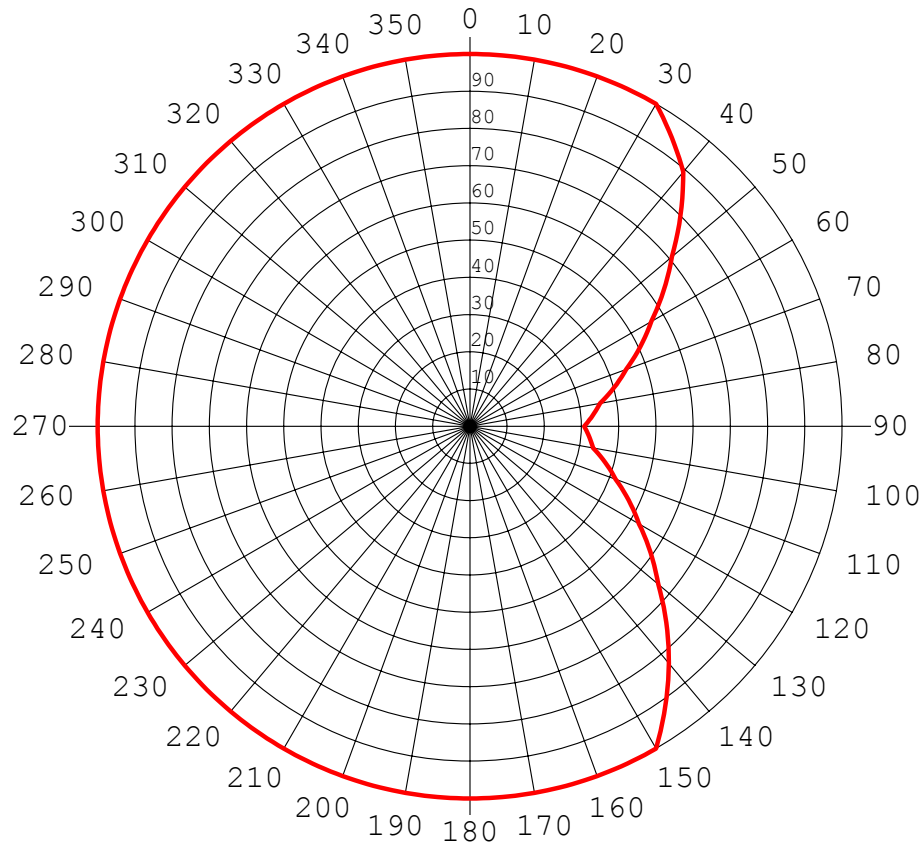
Exhibit #30 is an RF emissions compliance statement.

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

Kate Michler

Brighton Directional Pattern

Ex #1, Pg #3



Azi	Rel	dBk	kW	dB	Azi	Rel	dBk	kW	dB
0	1.000	1.52	1.420	0.00	180	1.000	1.52	1.420	0.00
10	1.000	1.52	1.420	0.00	190	1.000	1.52	1.420	0.00
20	1.000	1.52	1.420	0.00	200	1.000	1.52	1.420	0.00
30	1.000	1.52	1.420	0.00	210	1.000	1.52	1.420	0.00
40	0.892	0.53	1.129	-1.00	220	1.000	1.52	1.420	0.00
50	0.708	-1.47	0.712	-3.00	230	1.000	1.52	1.420	0.00
60	0.563	-3.47	0.449	-5.00	240	1.000	1.52	1.420	0.00
70	0.447	-5.47	0.284	-7.00	250	1.000	1.52	1.420	0.00
80	0.355	-7.47	0.179	-9.00	260	1.000	1.52	1.420	0.00
90	0.307	-8.73	0.134	-10.26	270	1.000	1.52	1.420	0.00
100	0.336	-7.95	0.160	-9.47	280	1.000	1.52	1.420	0.00
110	0.417	-6.08	0.247	-7.60	290	1.000	1.52	1.420	0.00
120	0.525	-4.08	0.391	-5.60	300	1.000	1.52	1.420	0.00
130	0.660	-2.08	0.619	-3.60	310	1.000	1.52	1.420	0.00
140	0.831	-0.08	0.982	-1.60	320	1.000	1.52	1.420	0.00
150	1.000	1.52	1.420	0.00	330	1.000	1.52	1.420	0.00
160	1.000	1.52	1.420	0.00	340	1.000	1.52	1.420	0.00
170	1.000	1.52	1.420	0.00	350	1.000	1.52	1.420	0.00

Rotation Angle = 0

Directional Antenna

The proposed custom directional antenna pattern meets the Commission's rules in that the radio frequency radiation does not change more than two dB for each ten degrees of azimuthal variation. Also, the maximum pattern attenuation in the deepest null is less than 15 dB. The pattern shown is a composite of the maximum field values in the horizontal and vertical planes.

The proposed antenna will be mounted on the sides of a tower that has been specified by the antenna manufacturer in accordance with the instructions provided by the manufacturer. The antenna will not be mounted on the top of a tower that includes a top mounted platform larger than the nominal cross-sectional area of the tower in the horizontal plane. No other antennas of any type will be mounted on the same tower level as the directional antenna nor within the horizontal or vertical distance specified by the manufacturer as being necessary to maintain proper directional operation. The antenna will be designed and tested by a major manufacturer of broadcast antennas known to the Commission. The pattern will be achieved through traditional methods including power-splitting, resonators and phasing.

N. Lat. = 44 47 02 W. Lng. = 71 53 14
 HAAT and Distance to Contour - FCC Method - 30 Arc. Sec.
 New Brighton 295A - Vermont Public Radio

Azi.	AV EL	HAAT	ERP kw	dBk	Field	60-F5
000	512.9	178.1	1.4200	1.52	1.000	26.39
045	439.1	251.9	0.9087	-0.42	0.800	28.06
090	365.7	325.3	0.1338	-8.73	0.307	20.18
135	676.4	14.6	0.7902	-1.02	0.746	9.58
180	408.7	282.3	1.4200	1.52	1.000	32.95
225	515.9	175.1	1.4200	1.52	1.000	26.20
270	546.6	144.4	1.4200	1.52	1.000	24.04
315	404.8	286.2	1.4200	1.52	1.000	33.17

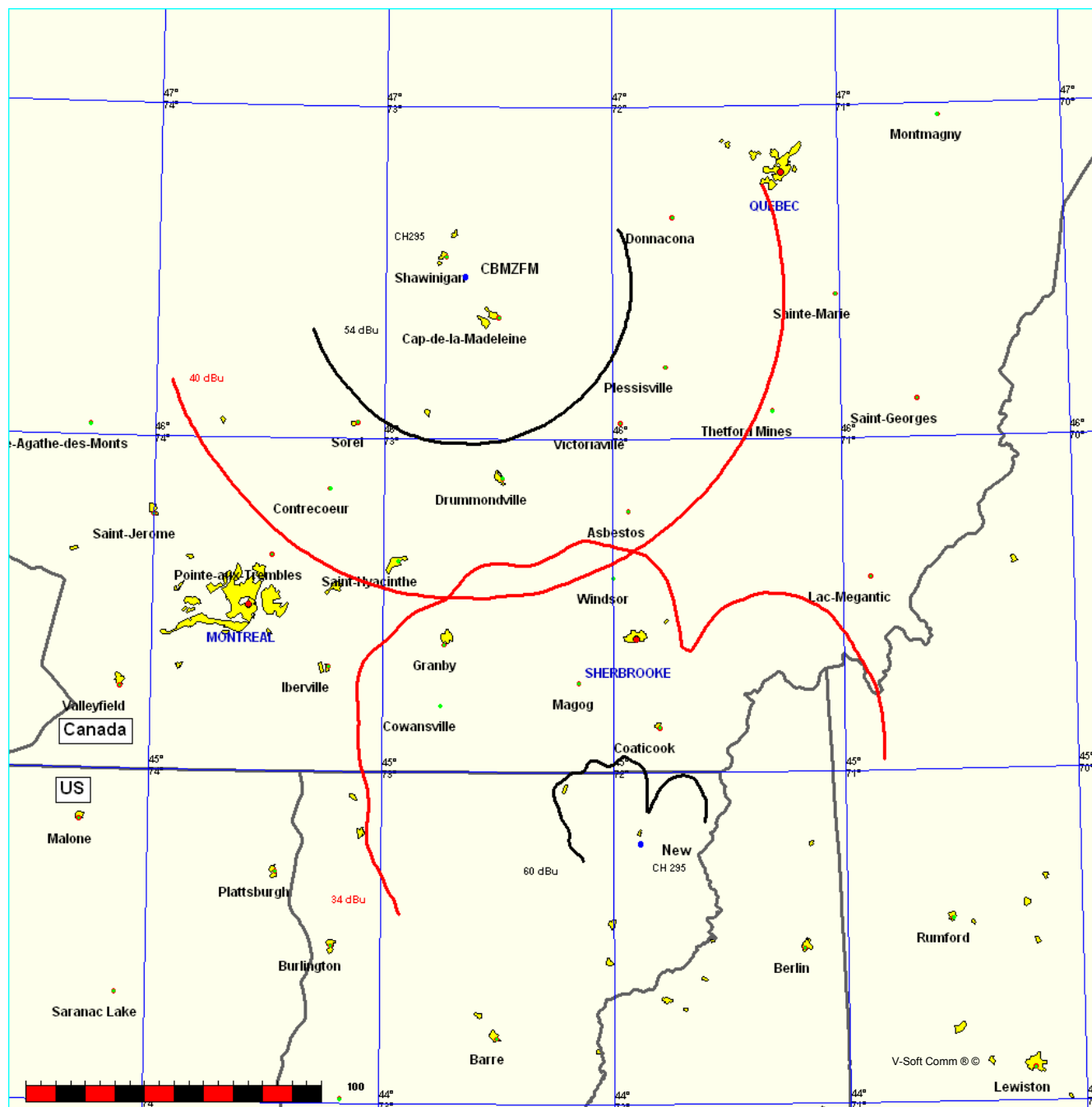
Ave Elevation = 483.77 M HAAT = 207.23 M AMSL = 691

FMCommander Allocation Study
03-06-2006

New CH 295 A
1.42 kW 691 M COR DA
Prot. = 60 dBu
Intef. = 34 dBu

CBMZFM CH 295 B
4.3 kW, 370 M COR
Prot. = 54 dBu
Intef. = 40 dBu

Scale = 1:3,350,000



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 eight years, and;

That, he has been active in broadcast consulting for over 30 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 Vermont Public Radio, Colchester, Vermont, and;

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 March 6, 2006