



EXHIBIT #1
ENGINEERING STATEMENT

Concerning the Application of
Vermont Public Radio
To Build an FM Translator Station at
Newbury, Vermont

File BNPFT 20030317HGL

August 2003

This engineering statement supports the application of Vermont Public Radio to build a new FM translator station on channel 258 to serve Newbury, Vermont. Channel 258 has been listed by the FCC as a “singleton” assigned to the applicant and available for application filing.

Under the instant proposal, the off-air audio signal of primary station WVPR, channel 208, Windsor, will be delivered to a Crown 30R translator unit. This unit will deliver 0.0217 kW to the input of a Shively 6812-1 antenna. The antenna has a power gain of 0.46 resulting in an effective radiated power of 0.01 kW, polarized circularly.

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 #3 of this exhibit. A coverage map can be found on page #4.

Exhibit #12 is an allocation study showing that no overlap interference is caused station licenses, construction permits and applications. Page #1 of this exhibit is a tabular study showing the proposed translator's relationship to all stations, construction permits and applications having a frequency and distance relationship. Page #2 of this study is a narrative explaining the abbreviations and conventions used in the channel printout. Page #3 - #5 compose an allocation map and an FMOVER study showing the contour-to-contour relationship between the proposed translator station and WFRD, Hanover, NH. There no contour overlaps with licensed stations, construction permits or with pending applications.

Exhibit #16 is an RF hazard statement showing that workers and the general public are protected from radio frequency emissions.

The proposed station is located 107.2 kilometers from the US border with Canada and the 34 dBu does not extend past 60 kilometers in any direction. The proposed facility is not within the critical distance to any AM station. The proposed facility is okay with respect to FCC monitoring stations, Table Mountain and the West Virginia Quiet Zone.

The applicant requests "unattended operation". The translator can be turned off in cases of an emergency by the staff at the applicant's headquarters.

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

Doug Vernier

Doug Vernier, Telecommunications Consultants

N. Lat. = 44 03 13 W. Lng. = 72 08 29

HAAT and Distance to Contour - FCC Method - 30 Arc Sec.

Vermont Public Radio - CH 258, Newbury, VT

Azi .	AV EL	HAAT	ERP kW	dBk	Field	60-F5	34-F1
000	312.1	105.9	0.0100	-20.00	1.000	6.02	28.22
030	256.8	161.2	0.0100	-20.00	1.000	7.36	34.91
060	203.0	215.0	0.0100	-20.00	1.000	8.55	40.14
090	259.8	158.2	0.0100	-20.00	1.000	7.29	34.58
120	287.4	130.6	0.0100	-20.00	1.000	6.64	31.32
150	255.8	162.2	0.0100	-20.00	1.000	7.38	35.02
180	241.6	176.4	0.0100	-20.00	1.000	7.71	36.43
210	311.0	107.0	0.0100	-20.00	1.000	6.05	28.38
240	308.2	109.8	0.0100	-20.00	1.000	6.13	28.76
270	356.2	61.8	0.0100	-20.00	1.000	4.58	21.45
300	388.4	29.6	0.0100	-20.00	1.000	3.15	14.16
330	459.1	-41.1	0.0100	-20.00	1.000	3.15	14.16

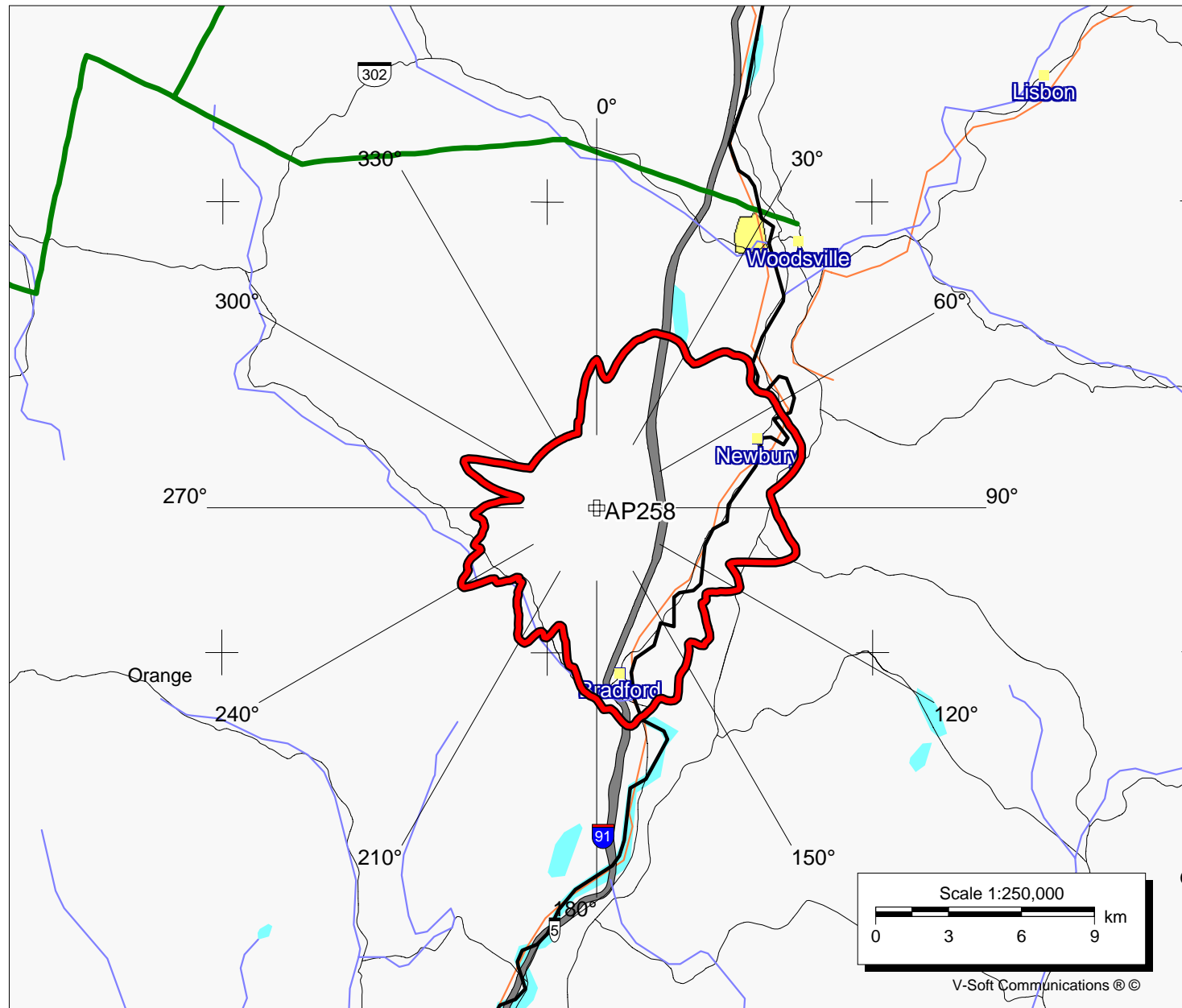
Ave El = 303.31 M HAAT= 114.69 M AMSL= 418

60 dBu Contours

AP258

Latitude: 44-03-13 N
Longitude: 072-08-29 W
ERP: 0.01 kW
Channel: 258
Frequency: 99.5 MHz
AMSL Height: 418.0 m
Elevation: 390 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: FCC

V
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Declaration:

I, Douglas L. 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 30 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 10/2000.)

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

That, I have been retained by the Vermont Public Radio to prepare the engineering showings appended hereto:

That, I have prepared these broadcast 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 28, 2003