

**EXHIBIT #1
ENGINEERING STATEMENT**

Concerning the Application of
Vermont Public Radio
To Construct a New FM Translator
To Serve Sugar Hill, New Hampshire
Long Form – BNPFT20030317HII

August 2003

Channel 253D

0.008kW ERP Omni

This engineering statement supports the application filed by Vermont Public Radio to construct a new FM translator to serve Sugar Hill, New Hampshire on Channel 253. The applicant proposes to modify the site coordinates and site elevation and modify the primary station.

Under the instant proposal, the off-air audio signal of primary station WVPS, channel 300, Burlington, Vermont, will be delivered to a type-approved transmitter. This unit will deliver 0.0174 kW to the input of a 1 bay Shively 6812. The antenna has a power gain of 0.46 resulting in an effective radiated power of 0.008 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 #10 is a map of the 60 dBu contours of the primary station, WVPS and the proposed translator. The proposed translator will be a "fill-in" facility.

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. Pages 3-4 are a map and FMOVER depicting the relationship between the proposed translator and WBOL-L, Boltonville, Vermont.

The proposed station is within 320 kilometers of the US border with Canada, however there are no pertinent Canadian relationships. The 34 dBu interference contour does not extend beyond 60 kilometers (See Ex #1, Page #3). 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 #16 is an RF hazard compliance statement.

Page #5 of Exhibit #E1 is a statement of the qualifications of the preparer.

Kate Michler

Long Form - BNPFT20030317HII

ERP = .01 kW

Channel = 253

Azimuth Deg. T.	Ave. Elev. 3 to 16 km Meters AMSL	Effective Antenna Height Meters AAT	ERP (dBk)	F(50-50) Distance to 60 dBu Contour km	F(50-10) Distance to 34 dBu Contour km
0	366.5	45.5	-20.000	3.90	18.14
30	341.6	70.4	-20.000	4.88	22.81
60	470.6	-58.6	-20.000	3.15	14.16
90	508.8	-96.8	-20.000	3.15	14.16
120	770.3	-358.3	-20.000	3.15	14.16
150	610.1	-198.1	-20.000	3.15	14.16
180	477.3	-65.3	-20.000	3.15	14.16
210	511.0	-99.0	-20.000	3.15	14.16
240	388.6	23.4	-20.000	3.15	14.16
270	298.5	113.5	-20.000	6.24	29.26
300	307.1	104.9	-20.000	5.99	28.08
330	302.3	109.7	-20.000	6.13	28.76

Ave. = 446.1 M		-34.1 M			

Antenna Radiation Center AMSL = 412

NGDC 30 Arc Sec.

Geographic Coordinates:

N. Lat. 44 13 14

W. Lng. 71 46 34

Proposed Translator 60 dBu Coverage

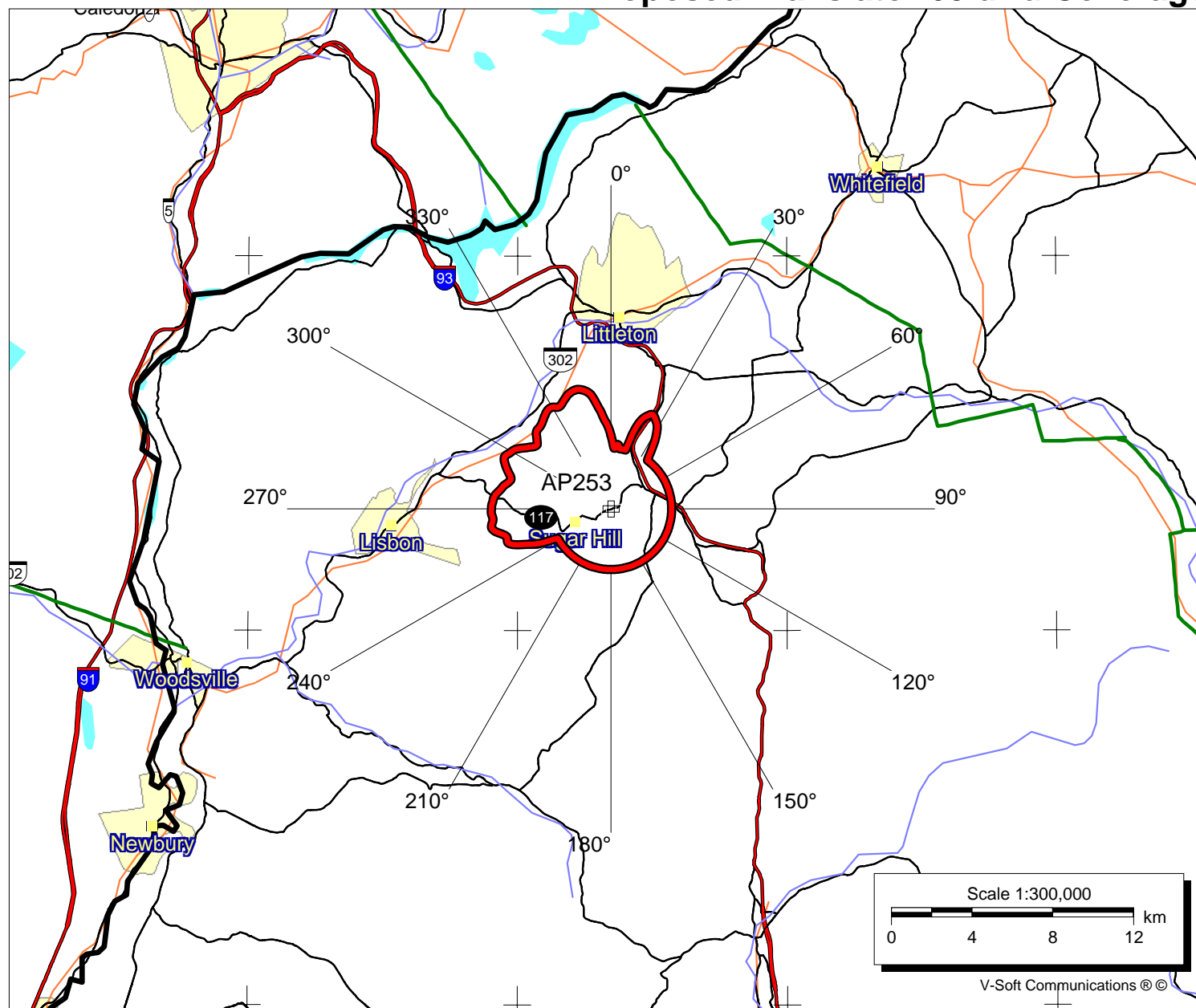
AP253

BNPFT20030317HII
 Latitude: 44-13-15 N
 Longitude: 071-46-32 W
 ERP: 0.008 kW
 Channel: 253
 Frequency: 98.5 MHz
 AMSL Height: 412.0 m
 Elevation: 399.0 m
 Horiz. Pattern: Omni
 Vert. Pattern: No
 Prop Model: FCC Contour

Pop = 852
 Area = 52 sq km

August 13, 2003

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



V-Soft Communications ©

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 five 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 Vermont Public Radio;

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 August 14, 2003