



EXHIBIT #1  
**ENGINEERING STATEMENT**

**Amendment to BNPFT-20030826AMO**

Concerning the Application of  
State University of New York  
To Build an FM Translator Station at  
Norwich, New York

December 3, 2004

On November 29, 2004 the Commission issued a 30 day letter stating that the proposed tower structure required registration and FAA approval. This application modifies the proposal to reduce the tower height to 25 meters, below the height required for tower registration. No other changes are proposed. Using the Commission's on-line program TOWAIR, we find that the newly proposed antenna site passes the airport glide-slope test and does not require FAA notification. The following engineering statement was included in the November 15<sup>th</sup> filing:

This engineering statement supports the application of the State University of New York, Oswego, New York to build a new FM translator station on channel 293 to serve Norwich, New York. Channel 293 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 WRVD, channel 212, Syracuse, New York will be delivered to a model Crown FM250R translator unit. The unit will be adjusted so that the proposed Shively 3-bay 6812 antenna has at its input 0.16667 kilowatts of power. The antenna has a power gain of 1.5 resulting in an effective radiated power of 0.25 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.

**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. There are no contour overlaps.

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

The proposed station located 160.93 kilometers from the U.S. border with Canada. The proposed facility is not within the specific critical distances to AM broadcast towers. 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 in Oswego.

Page #4 of this **Engineering Exhibit** is a statement of the qualifications of the preparer.

Doug Vernier

Doug Vernier, Telecommunications Consultants

N. Lat. = 42 31 39 W. Lng. = 75 31 33

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

Norwich, NY - SYNY-Oswego - WRVO

Azi .	AV EL	HAAT	ERP kW	dBk	Field	60-F5
000	353.9	-21.9	0.2500	-6.02	1.000	7.09
030	456.6	-124.6	0.2500	-6.02	1.000	7.09
060	467.6	-135.6	0.2500	-6.02	1.000	7.09
090	452.4	-120.4	0.2500	-6.02	1.000	7.09
120	440.0	-108.0	0.2500	-6.02	1.000	7.09
150	488.2	-156.2	0.2500	-6.02	1.000	7.09
180	445.1	-113.1	0.2500	-6.02	1.000	7.09
210	367.6	-35.6	0.2500	-6.02	1.000	7.09
240	453.7	-121.7	0.2500	-6.02	1.000	7.09
270	502.8	-170.8	0.2500	-6.02	1.000	7.09
300	526.0	-194.0	0.2500	-6.02	1.000	7.09
330	407.8	-75.8	0.2500	-6.02	1.000	7.09

Ave EI = 446.80 M HAAT= -114.80 M AMSL= 332

**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 State University of New York, Oswego, New York 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.



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Douglas L. Vernier

Executed on Decemeber 3, 2004