

Exhibit 1

1 of 2

**United States of America
FEDERAL COMMUNICATIONS COMMISSION
EXPERIMENTAL
RADIO STATION CONSTRUCTION PERMIT
AND LICENSE**

202-418-2432

EXPERIMENTAL
(Nature of Service)

XR FX
(Class of Station)

KA2XIK
(Call Sign)

6105-EX-ML-1998
(File Number)

NAME VIRGINIA TECH SEISMOLOGICAL OBSERVATORY

Subject to the provisions of the Communications Act of 1934, subsequent acts, and treaties, and all regulations heretofore or hereafter made by this Commission, and further subject to the conditions and requirements set forth in this license, the licensee hereof is hereby authorized to use and operate the radio transmitting facilities hereinafter described for radio communications in accordance with the program of experimentation described by the licensee in its application for license.

Operation: In accordance with Sec. 5.202(c) of the Commission's Rules

Station Locations

- (1) Butt Mountain, VA - NL 37-22-30; WL 80-37-30
- (2) Butt Mountain, VA - NL 37-22-30; WL 80-37-30
- (3) Butt Mountain, VA - NL 37-22-30; WL 80-37-30
- (4) Butt Mountain, VA - NL 37-22-30; WL 80-37-30
- (5) Walker Mountain, VA - NL 37-06-31; WL 80-58-14
- (6) Princeton, VA - NL 37-20-06; WL 81-02-55
- (7) Forest Hill, VA - NL 37-34-00; WL 80-47-30
- (8) Prospectdale, VA - NL 37-17-30; WL 80-40-30
- (9) Blacksburg, VA - NL 37-22-30; WL 80-25-30

Frequency Information

Butt Mountain, VA - NL 37-22-30; WL 80-37-30

Frequency	Station Class	Emission Designator	Authorized Power watts	Tolerance (+/-)
216.3 MHz	FX	5K00F2D	24 (ERP)	

Butt Mountain, VA - NL 37-22-30; WL 80-37-30

Frequency	Station Class	Emission Designator	Authorized Power watts	Tolerance (+/-)
216.5 MHz	FX	5K00F2D	24 (ERP)	

Butt Mountain, VA - NL 37-22-30; WL 80-37-30

Frequency	Station Class	Emission Designator	Authorized Power watts	Tolerance (+/-)
216.9 MHz	FX	5K00F2D	24 (ERP)	

This authorization effective MAY 20, 1998 and will expire 3:00 A.M. EST NOV 01, 1999

FEDERAL COMMUNICATIONS COMMISSION



Exhibit 1 cont 2072

Frequency Information

Butt Mountain, VA - NL 37-22-30; WL 80-37-30

Frequency	Station Class	Emission Designator	Authorized Power watts	Tolerance (+/-)
217.3 MHz	FX	5K00F2D	24 (ERP)	

Walker Mountain, VA - NL 37-06-31; WL 80-58-14

Frequency	Station Class	Emission Designator	Authorized Power watts	Tolerance (+/-)
217.7 MHz	FX	5K00F2D	24 (ERP)	

Princeton, VA - NL 37-20-06; WL 81-02-55

Frequency	Station Class	Emission Designator	Authorized Power watts	Tolerance (+/-)
218.95 MHz	FX	5K00F2D	24 (ERP)	

Forest Hill, VA - NL 37-34-00; WL 80-47-30

Frequency	Station Class	Emission Designator	Authorized Power watts	Tolerance (+/-)
219.25 MHz	FX	5K00F2D	24 (ERP)	

Prospectdale, VA - NL 37-17-30; WL 80-40-30

Frequency	Station Class	Emission Designator	Authorized Power watts	Tolerance (+/-)
219.55 MHz	FX	5K00F2D	24 (ERP)	

Blacksburg, VA - NL 37-22-30; WL 80-25-30

Frequency	Station Class	Emission Designator	Authorized Power watts	Tolerance (+/-)
219.85 MHz	FX	5K00F2D	24 (ERP)	

Special Conditions:

- (1) The station identification requirements of Section 5.152 of the Commission's Rules are waived.

Exhibit 2

The authorization is to be used for fulfilling U.S. Geological Survey Contract Number 99HQAG0172, to operate a seismic monitoring network. The Contracting Officer is Francine Harris, (703)648-7386. U.S. Geological Survey, Mail Stop 205K, Reston, Va, 20192.

Exhibit 3

The research involves operation of remote digitizers that record ground motion. The radio equipment is absolutely necessary in order to telemeter the digital ground motion data from the remote recording sites to the central recording facility in Blacksburg. There exists no other option for accomplishing this telemetry. The purpose of this application is simply to renew the FCC experimental licence.