

022-EX-ST-1999



THE UNIVERSITY OF MICHIGAN  
COLLEGE OF ENGINEERING  
ATMOSPHERIC, OCEANIC AND SPACE SCIENCES

SPACE RESEARCH BUILDING  
2455 HAYWARD  
ANN ARBOR, MICHIGAN 48109-2143  
TELEPHONE: 313 764-3335 FAX: 313 764-4585

Mr. Douglas Young  
Federal Communications Commission  
Experimental Licensing Branch  
2000 M St., Suite 230  
Washington DC 20554

March 23, 1999

Dear Mr. Young,

The University of Michigan, Dept. of Atmospheric, Oceanic and Space Science, requests temporary permission to operate our four-frequency Doppler radar system to measure lake surface currents along the shore of Lake Michigan near St. Joseph MI and Benton Harbor MI (on the southeast shore of the lake). We request permission to operate over the period March 26 to May 15, 1999. This radar system has operated successfully with no interference at Santa Cruz and Moss Landing CA as well as near Virginia Beach VA in 1997 under the call sign WA2 XEJ. In April of last year we operated our radar at St. Joseph MI in the same manner we are requesting here without interference (a copy of the license is attached). We are participating in a multi-agency field experiment jointly funded by NOAA and NSF (Larry Clark is the scientific officer). The project is called EEGLE (Episodic Events: Great Lakes Experiment) and I have included a short note on the experiment.

We are working with the city manager, water works manager and parks manager of the City of St. Joseph to insure the we do not interfere either by way of radio or physically with normal activities in the city. We have identified radar sites at the water works, a city park and on the Whirlpool Headquarters site for the radars. No other HF radars are scheduled to operate in the EEGLE experiment.

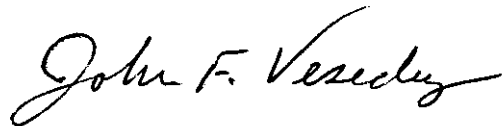
The University of Michigan radar system, for which we are requesting permission to operate in this letter, consists of two stations about 10 km apart. We plan to operate from a shore line site at the St. Joseph Water Works (Mike O'Malley, supervisor) or from a bluff site at a city park. The second radar would operate from the Whirlpool Corp. Headquarters site (Robert Deaton, Global Manager of Construction and Workplace Design) just north of Benton Harbor MI. The radar transmits with quarter wavelength vertical antennas and receives with an array of eight small loop antennas stretching over about 50 meters. For this experiment we request permission to use the following operating characteristics:

Frequency - kHz	Peak Power - Watts ERP	Emission Designator
4800.00	500	100KPON
6780.00	500	100KPON
13,380.00	500	100KPON
21.770.00	500	100KPON

Please advise us as soon as possible about granting a special temporary authorization to operate this radar system in the area and during the time described above. A FAX of the license to the number below would be most helpful. If you have questions, I can be reached at 734-764-5151 (5137 FAX) or by email at [jfv@engin.umich.edu](mailto:jfv@engin.umich.edu).

Many thanks for your help with the successful Chesapeake Bay experiment in 1997 and the EEGLE operation last spring. We reported last year's results at both the American Society of Limnology and Oceanography (ASLO) meeting in Taos NM and the IEEE Current Measurement Technology Conference in San Diego a few weeks ago.

Yours sincerely,

A handwritten signature in cursive script that reads "John F. Vesecky". The signature is written in black ink and is positioned above the typed name.

Prof. John F. Vesecky  
Principal Investigator  
HF Radar Program