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FCC
Wireless Telecommunications Bureau
1270 Fairfield Road
Gettysburg, PA 17325-7245

RE: Notice of Return
Reference No.: 5990864
File No.: 0006748183
Radio Service: IG

Dear FCC:

My application was returned for: "Please elaborate on the activity that makes you eligible as an individual under 90.35(a)."

My initial description was: "Broadcast corrections from GPS Base to GPS rover. For RTK surveying operations in New York, and RTK equipment demonstrations in other areas."

Elaboration:

Under 90.35(a), "Persons primarily engaged in any of the following activities are eligible to hold authorizations in the Industrial/Business Pool... to operate stations for transmission of communications necessary to such activities of the licensee."

One of said activities is 90.35(a)(1): "The operation of a commercial activity;"

As a Land Surveyor licensed and currently registered to practice in New York State, I am primarily engaged in the operation of a commercial activity. I provide land surveying services to the public for a fee in New York State. I am a private consultant business, operating under my own name, and also provide consulting services to JAVAD GNSS. The services I provide require me to measure the surface of the earth in New York State, or to demonstrate use of the equipment in places other than New York State.

In order to best serve the public in New York it is sometimes necessary for me to measure using the Global Positioning System (GPS), or more properly the Global Navigation Satellite System (GNSS). In order to fully utilize the surveying grade (cm level accuracy) measurement capabilities of GNSS it is necessary to place one receiver (the base) in a location for typically 2-4 hours collecting data and have that receiver send corrections via uhf radio to a second receiver (the rover). The rover does not broadcast but merely receives these corrections enabling precise, survey

grade locations on each point occupied by the rover. This is called Real Time Kinematic (RTK) surveying. In many areas, such as with heavy tree cover or no cell phone service, this is the only way to achieve survey grade accuracy and precision with GNSS technology. In other areas it may merely be the best way, enabling less time spent and faster results than traditional methods of measurement, resulting in lower cost services and more timely service to clients.

In addition to the above, 90.35(a)(2) allows: "The operation of educational, philanthropic, or ecclesiastical institutions;"

I taught surveying full time at a community college for 13 years and continue to teach as an adjunct. I plan on expanding my current surveying consulting business to include teaching courses for continuing education credit for licensed professional surveyors. In that capacity I may wish to include instruction in RTK GNSS, necessitating the use of the above described process in varying locations around the country.

Sincerely,

Duane C. Frymire, L.S., E.J.D.
NY Land Surveyor Lic. # 050224
Executive Juris Doctor