0178-EX-ST-2001

THE PEACE BRIDGE
CROSSING PATHS ★ BUILDING FUTURES

April 6, 2001

PB_STA

Federal Communications Commission
Transportation Infrastructure Radio Service
P.O. Box 358320
Pittsburgh, PA 15251-5320

faxed to: 717-338-2696
Attn: Wanda Grothen 717-338-2619

Dear Ms. Grothen:

In accordance with Section 90.145 of the Commission's Rules, we request special temporary authority ("STA") to operate a non-multilateration Location and Monitoring Service system for the toll collection purpose noted below on the Buffalo & Fort Erie Public Bridge Authority.

Since the Buffalo & Fort Erie Public Bridge Authority is an entity of the State of New York, exemption from the fees is requested.

In support of this request, the following is shown:

1. Applicant's Name and Address:

Buffalo & Fort Erie Public Bridge Authority
Peace Bridge Plaza
Buffalo, New York 14213

Attn: Tony Braunscheidel
Ph. 716-884-6744

2. Need for Special Action:
The STA is requested in order for us to startup new Intelligent Transportation Systems Radio Service equipment being operated as a non-multilateration Location and Monitoring Service (LMS) system at a toll bridge/customs facility. The installation and calibration is scheduled tostart June 1, 2001. A permanent license application will be submitted in accordance with the new rules published March 23, 1995.

3. Type of Operation:
The type of operation in installation, calibration and acceptance testing prior to full scale operation.
A low power, short 20 microsecond interrogation pulse or data burst will be transmitted periodically every 6 to 16 milliseconds by each antenna into a lane where vehicles travel. Accordingly we request authority for continuos transmission.

4. Purpose of Operation:
The LMS system will be used at the toll bridge collection points Authority's Peace Bridge, to automatically identify vehicles and collect tolls, providing time and pollution savings. The system consists of a reader that transmits a wake-up trigger in each lane to a Part 15 type accepted vehicular mounted transponder, that responds with a unique identification number and other trip related data using a low power transmission powered from an internal battery.

5. Date of Operation:
The initial installation and calibration is scheduled to start June 1, 2001. Installation of all planned lane transmitters will proceed over the following weeks. Actual full scale demonstration operation of the equipment will commence towards the end of August 2001. We will be filing a permanent license application during the next few weeks.

6. Class of Station The station class is Radiolocation, Land.

The Service is LN 902-928 MHz Location Narrowband, Non-multilateration

7. Location of Proposed Operation:
The following sites are planned for operation under this authority:

Plaza Site Name	# Lanes (TX)	Lat/Long (Deg, Min, Sec)	El.
Toll plaza/truck area	13 antennas	42-54-20 N 78-54-01 W	175 meters

8. Equipment to be Used:
The equipment to be used consists of a new generation of LMS tag readers developed by Mark IV IVHS to meet requirements of the both E-ZPass NY/NJ/PA Interagency Group and the trucking operations. Each reader unit contains up to 6 RF modules (transmitters) that are operated in sequential fashion to poll transponders in the lanes. A particular lane's antenna is connected by low loss coax or Heliax to the RF module for that lane.

9. Frequency: This equipment operates on a frequency of 915.075 MHz.

10. Radiated Power:
Two different antennas are used:
For E-ZPass compatibility, a lane mode antenna will be used, directed down towards the pavement from the overhead mounting location. The maximum peak effective radiated power will be 16 watts or less. With the

Transmitter power output = 4 watts peak
Antenna gain = 13 db
antenna beamwidth 3 db down just 28 degrees (H and V planes)
antenna front to side 19 db
Feedline loss 3 to 8 db

the typical site-specific adjusted power (using additional attenuators) is 6 watts peak ERP. Since the antenna has such a focused beam, and front to side is 19 db, the radiated power directed at the horizon is considerably less than 1 watt ERP.

11. Type of Emission
The emission is 6M00PON and 6M00P1D. It is a trigger pulse of 20 microseconds repeated every 6 to 16 milliseconds. Data transmission is at 500 Kbps for 500 microseconds when the transponder is being programmed by the reader. RF module frequency emissions masking and frequency stability meet the new LMS requirements, with RF modules being type accepted FCC ID JQU800495. The transponders are type-accepted under Part 15: FCC ID JQU700457.

12. Overall Height of Antenna above Ground
The lane mode antenna will be less than 19 feet above the ground, to the bottom side of a toll plaza canopy or traffic signal arm/sign bridge, looking almost directly down

13. Statement of Eligibility
This STA is for a system operation under subpart M, renamed to the Intelligent Transportation System Radio Service. This application is in accordance with 90.353h for non-multilateration for intelligent transportation services, such as fee payment and vehicle location/identification. The Buffalo & Fort Erie Public Bridge Authority, is a public agency.

14. Anti-Drug Abuse Certification
The applicant hereby certifies that neither it, its officers and directors, nor any party with a five percent or greater interest in this request for special temporary authority has been convicted of offenses consisting of the distribution or possession of controlled substances, as such terms are defined in Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. 862.

If there are any questions about this application, please contact the undersigned:
Thank you for your prompt attention to this request.

Respectfully:

Anthony D. Braunscheidel
Information Technology Manger

Buffalo & Fort Erie Public Bridge Authority
Peace Bridge Plaza
Buffalo, New York 14213

PH 716-884-6744 ext. 242