

5-3539-EX-1998

National Railroad Passenger Corporation, 30th and Market Streets, Philadelphia, PA. 19104



*No such code
(DWP)*

*w/D 9.29.98
withdrawn per
attached letter*

HSTG-0145
September 18, 1998

Federal Communications Commission
Experimental Radio Service
Code EAE
P.O. Box 358320
Pittsburgh, PA 15251-5320

Dear Sir or Madam:

Pursuant to Section 5.56 (47 CFR 5.56) of the FCC Rules and Regulations, the National Railroad Passenger Corporation (Amtrak) hereby requests a Special Temporary Authorization (STA) in the Experimental Radio Service for a period of six (6) months for operations commencing on October 1, 1998. The Following are specific details pertaining to Amtrak's STA request as required by Rule Section 5.56 (b)

- (1) National Railroad Passenger Corporation
60 Massachusetts Avenue, NE
Washington, DC 20002
- (2) On July 22, 1998, the Federal Railroad Administration (FRA), of the U.S. Department of Transportation, issued effective August 21, 1998 a Final Order of particular Applicability (Final Order) applying to certain trains operating on track controlled by Amtrak on the Northeast Corridor (NEC) between Washington, DC and Boston, Massachusetts. With an implementation date of October 1, 1999, the Final Order mandates that all trains operating on the NEC between New Haven, Connecticut and Boston (NEC-North End) and certain trains operating on the NEC between Washington, DC and New York, New York (NEC-South End) be controlled by locomotives equipped to respond to a new advanced civil speed enforcement system (ACSES). In order to satisfy the FRA's October 1, 1999 implementation date, Amtrak must perform extensive pre-qualification and pre-service testing of the ACSES equipment covering all areas of applicability.
- (3) In accordance with Rule Section 5.202, the type of operations to be conducted will include: technical demonstrations of equipment or techniques (per 47 CFR 5.202 (d)); and, development of radio technique, equipment or engineering data not relating to an existing or proposed service, including field testing or calibration of equipment (per 47 CFR 5.202 (h)).
- (4) The purpose of the operation is to demonstrate, in the public interest, the increased safety and reliability of rail operations achievable through

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the application of the ACSES enhanced train location and speed control equipment. The equipment consists of locomotive-mounted Antenna & CTV Box units and wayside-mounted Transponder devices at locations along the railroad right of way. In operation, the Antenna & CTV box unit mounted to the locomotive undercarriage transmits a low power radio frequency (RF) signal directed downward beneath the locomotive to energize the Transponder devices mounted between the rails as the locomotive passes over them. The ground-mounted Transponders are passive (i.e., non-radiating) devices until the locomotive Antenna & CTV Box unit's signal, each Transponder responds with a low power RF signal modulated by digitally encoded information received by the locomotive – accurate position location, optimum train speed control, and details of restricted speed zones, etc. – will result in significantly increased safety of railroad operations for the benefit of the rail passenger and the U.W. public.

- (5.7) Site C AAR/TTC1 trackage at Pueblo, Colorado Test Track 24 hours per day beginning start date of STA.

Class of Station: Mobile (Antenna & CTV Box Unit), Fixed (Transponder);
Nature of Service: Experimental

- (8-12) Equipment details are as follows:

Antenna & CTV Box

Manufacturer: Alstom Transportation, Incorporated
Model Number (Antenna): 19364
Model Number (CTV Box): 19366
Power Supply: 12 VDC supplied by train
Power Input: 25 Watts input to final RF stage
Frequency: 27.115 MHz
Emission: PO (17.5 us On, 2.5 us Off = 87.5% Duty Cycle)

Antenna & CTV Box height above ground:

Antenna & CTV Box is mounted directly on undercarriage of locomotive
Approximately 15 inches above the ground with RF signal directed
vertically downward toward the ground.

Number of Antenna & CTV Box Units: Up to 4 Units, as needed to conduct necessary
Tests.

Transponder

Manufacturer: Alstom Transportation, Incorporated
Model Number: 79545468
Power Supply: None
Power Input: RF signal received from Antenna & CTV Box Unit, approximately
13 mW
Frequency: 4.5 MHz
Emission: PO (17.5 us On, 2.5 Off = 87.5% Duty Cycle)

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Transponder height above ground: Transponder is mounted on the ground between the Rails with Transponder RF signal directed vertically upward toward the locomotive undercarriage.

Number of Transponder Units: Up to 45 Units, as needed to conduct necessary tests.

The National Railroad Passenger Corporation hereby certifies that it is eligible for this license STA. Further, the National Railroad Passenger Corporation certifies that no party to this application is subject to a denial of Federal benefits, pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. 862.

Thank you for your attention to this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "D. N. Diaz", written over the typed name and title.

David N. Diaz
Chief Mechanical Officer
Northeast Corridor