November 20, 2006

Mr. Laurence G. Reuter, President
MTA New York City Transit
2 Broadway
New York, NY 10004

RE: PTSB CASE #8756

Dear Mr. Reuter:

The Public Transportation Safety Board received notice of a mechanical failure bus accident involving the MTA New York City Transit, which occurred on Gowanus Expressway at 38th Street, Brooklyn, NY, on December 9, 2005.

Based on a review of the enclosed Abbreviated Report, no further action is necessary.

Sincerely,

John F. Guinan
Executive Director
Public Transportation Safety Board.

Enclosure
1. CASE: 8756
2. PROPERTY NAME: NYCT
3a. ACCIDENT TYPE: Mechanical Failure
3b. Accident Severity Index: 0.10
4a. DATE: December 9, 2005
4b. TIME: 3:11 pm
5. ACCIDENT LOCATION: Gowanus Expressway at 38th Street
6. TOWN/CITY/BOROUGH: Brooklyn
7. SUMMONS: Yes
8. BUS NUMBER: 2193
8a. YEAR: 2001
8b. MAKE: MCI
9. NUMBER OF INJURIES: 2
10. FATALITIES: 0
11. HOURS OF SERVICE: 7 hrs and 11 min in last 24 hrs/49 hrs and 26 min in last 7 days
12. SYNOPSIS:

At approximately 3:11 pm, MTA New York City Transit (NYCT) bus #2193 was moving northbound in the #2 travel lane on Gowanus Expressway with an approximate speed of 50-55 mph when the traffic ahead of the bus started to slow down. The bus driver stated that he applied the brakes but they did not respond as he expected. He moved the bus into #1 travel lane and continued to move to the rear of truck #1. Truck #2 was traveling in the same direction, in front of truck #1. An auto was traveling in the same direction in front of truck #2. A school bus was moving in the same direction in front of the auto. The traffic in the #1 lane slowed down and the NYCT bus driver applied the brakes hard, however, the front of the bus struck the #1 truck in the rear, pushing it forward and causing it to rear end truck #2. Truck #2 was coming to a stop when it was struck by the bus second time. Truck #2 struck the stopped auto in the rear, pushing it forward into the stopped school bus. Two occupants from truck #2 claimed injuries, were transported to a local hospital, treated and released. Four students from the school bus were transported to local hospitals for observation. The bus and the auto, both sustained extensive damage with slight damage to the other vehicles. The NYC Police responded to the accident and the bus driver and the drivers of truck #1 and truck #2 were issued summonses for “following too closely” by an NYPD Highway 2 police officer.

In the vicinity of the accident site, Gowanus Expressway is an 89 foot wide, elevated two-way highway divided by a concrete divider, accommodating three northbound and three southbound travel lanes. The roadway is straight, level and concrete paved. At the time of the accident it was daylight, the weather was clear and dry. The posted area speed limit is 50 mph.

Bus #2193 is a 2001 MCI coach bus with a seating capacity of 53 passengers. A review of the bus records indicated that Preventive Maintenance Inspections (PMI) are performed at Ulmer Park Depot at regular 6,000 mile intervals, and the most recent was complete on October 26, 2005. The bus had traveled 2,472 miles at the time of the accident. No recorded defects were found that would be considered causative factors in this accident. A post accident inspection of bus #2193 was conducted by the Public Transportation Safety Board (PTSB) staff on December 12, 2005. The inspection showed that both tag axle brakes were inoperative.
The right brake of the tag axle was frozen and the brake chamber return spring went out through the rod hole. The left brake on the tag axle was not adjusting. As the result of the collision, the accelerator pedal was broken and the brake pedal was bent to the floor. Due to the extent and the nature of the accident damage the brake deceleration test was not performed. The depot was instructed to make the necessary repairs without altering the brakes.

At the follow up inspection (January 6, 2006; approximately 25 days later) it was noted by PTSB staff that the slack adjusters were manually adjusted and brake lining clearance and push rod throws had changed before PTSB staff arrived. Despite the adjustments performed on the brake system, in contrast to the depot’s instructions, the secondary inspection was conducted and the bus failed the brake road test. It should also be noted that on December 15, 2005, MTA NYCT was experiencing a labor strike.

The bus driver was hired by MTA NYCT on March 12, 2001, and completed the standard “New Bus Operator Training Program”. A review of the bus driver’s Department of Motor Vehicles records for the last three years showed one seat belt violation on 01/21/03 resulting in a fine of $40, one mobile phone violation on 01/21/03 resulting in a fine of $40, and one seat belt violation on 08/24/03 resulting in a fine of $75. New York State Vehicle & Traffic Law, Article 19-A records were complete and up-to-date. A review of the driver’s MTA NYCT record revealed one non-preventable collision accident on 6/20/05. A post accident drug and alcohol test administered to the bus driver 3 hours and 46 minutes after the accident was negative.

In an interview with the PTSB staff the bus driver indicated that while driving the bus in #2 travel lane northbound on Gowanus Expressway to the rear of an auto with an approximate speed of 50-55 mph the traffic in front of him slowed down. He “tapped’ the brakes twice but the bus did not respond as he expected. The driver stated that he applied the brakes harder and the bus slowed down a little and he moved the bus into the right travel lane to the rear of truck #1. The truck slowed and the bus driver applied the brakes the 5th time but the brakes did not respond and the front of the bus struck the rear of truck #1.

The driver of truck #1 stated to a DOB supervisor that he had been moving at slow speed when the bus had struck the rear of the truck causing it to strike truck #2. He brought the truck to a stop and was struck the second time by the bus.

The driver of truck #2, the auto driver and the driver of the school bus, all indicated that they had been stopped for traffic when their vehicles were struck from behind causing them to strike the vehicles in front of them.

According to the information downloaded from the bus’s Electronic Control Module (ECM) the bus driver had twice abruptly applied the service brakes (first time – 8 minutes prior to the collision and the second time immediately before the collision). The analysis of the records indicated that the maximum deceleration of the bus in both attempts to brake the bus were the same and equal to 10.9 ft/sec/sec. That shows that the maximum braking efficiency of the bus was 34% (the allowed limit is 60%). The calculated braking distance of the bus moving with a speed of 50 mph, with the pre-
accident braking efficiency of 34%, would be 245 feet verses the braking distance, with the minimum allowed braking efficiency of 60%, would have been 138 feet.

The investigation showed that the bus driver failed to identify a long brake, while doing the pre-trip inspection of the bus. Then, while driving the bus in service, he also did not identify any brake defects. An improper following distance created a critical situation and lead to the collision. It should be noted that the PTSB staff in conjunction with NYCT staff were unable to identify the cause and the time when the failure of the service brakes originally occurred.

The Public Transportation Safety Board staff finds that the most probable cause of the accident was the failure of the bus driver to identify the loss of the braking efficiency. He also failed to drive with an appropriate following distance and utilize his training in defensive techniques.

Contributing to the accident was the loss of the efficiency of the service brakes.

The MTA NYCT reviewed the accident on April 2006, and found it to be preventable. The bus driver was issued and accepted a 10 day suspension. The bus driver was re-trained, his performance was evaluated as satisfactory and he was returned to passenger service.

Based on the action taken by NYCT regarding this accident the Public Transportation Safety Board staff makes no recommendations.

INVESTIGATOR: Mikhail Palanker

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CHIEF, ACCIDENT INVESTIGATION SECTION DATE

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DIRECTOR, PCSB, NYSDOT DATE