1. CASE: 9534
2. PROPERTY NAME: MTA BC
3a. ACCIDENT TYPE: Bus Fire
3b. Accident Severity Index: 0.00
4a. DATE: October 13, 2007
4b. TIME: 1:08 pm
5. ACCIDENT LOCATION: Northern Boulevard at Junction Boulevard
6. TOWN/CITY/BOROUGH: Queens
7. SUMMONS: None
8. BUS NUMBER: 9934
   8a. YEAR: 1998
   8b. MAKE: Orion
9. NUMBER OF INJURIES: 0
10. FATALITIES: 0
11. HOURS OF SERVICE: 2 hrs and 54 min in last 24 hrs/40 hrs and 46 min in last 7 days
12. SYNOPSIS:

At approximately 1:08 pm, MTA Bus Company (MTA BC) bus #9934 traveling on Northern Boulevard was stopped in the bus stop at Junction Boulevard when an unidentified passenger notified the bus driver that smoke and fire is coming out from the rear of the bus. The bus driver evacuated all passengers, activated the onboard fire suppression system and called the Command Center for assistance. FDNY responded to the accident and extinguished the fire. No injury claims were reported. The bus sustained slight damage and was towed to the depot.

In the vicinity of the accident site, Northern Boulevard is a 72 foot wide, two-way road divided by a full barrier yellow pavement marking, accommodating two eastbound and two westbound travel lanes. Each direction has an additional left turning lane. Junction Boulevard is a 44 foot wide, two-way road divided by a full barrier yellow pavement marking, accommodating one northbound and one southbound travel lane. Both roadways are straight, level and asphalt paved. Parking is permitted at the curbs. The traffic at the intersection is controlled by four traffic signals. At the time of the accident it was daylight, the weather was dry and clear. The area speed limit is 30 mph.

Bus #9934 is a 1998 Orion transit type bus with a seating capacity of 40 passengers. A review of the bus records indicated that Preventive Maintenance Inspections (PMI) at College Point Depot are performed at regular 4,000+500 mile intervals or 90 days whichever comes first. The most recent PMI was completed on October 10, 2007. The bus had traveled 186 miles at the time of the accident. There were no safety or recurring defects, noted in the 45 days prior to the accident. A post accident inspection of bus #9934 was conducted by the Public Transportation Safety Board (PTSB) staff in conjunction with MTA BC staff on October 15, 2007. The inspection revealed that the end of the battery cable was separated from the starter solenoid terminal crimp connection. The end part of the cable was colored greenish. Arcing of the hot cable against the grounded solenoid caused the fire. According to the maintenance record the bus underwent a PMI three days prior to the incident and no defects were found or indicated in the record. It is most probable that the greenish discoloration from oxidation existed at least seven or ten days prior to the accident and it was not discovered during the last PMI. The oxidation, in combination with the loose crimp connection, caused an increase of the electrical resistance and heat at the crimp connection damaging the cable insulation. The maintenance records also indicate that corrective maintenance was performed when the engine motor mounts were replaced one day before the fire and the bus traveled 16 miles.
The bus driver was hired by MTA NYCT on March 5, 2007, and completed the standard “New Bus Operator Training Program”. A review of the bus driver’s Department of Motor Vehicles showed one “speed in zone” violation on 07/01/2003, resulting in a $60 fine and 6 points on the record. New York State Vehicle & Traffic Law, Article 19-A records were complete and up-to-date. A review of the driver’s MTA NYCT records for the time since he was hired showed no collision accidents. A post accident drug and alcohol test was not administered to the bus driver due to the nature of the accident.

In an interview with the PTSB staff, the bus driver indicated that while driving eastbound on Northern Boulevard he entered the bus stop at Junction Boulevard and was notified by a passenger that smoke and flames were coming out from the engine compartment of the bus. He immediately evacuated all passengers, exited the bus to inspect it. Then the bus driver reentered the bus, activated the onboard fire suppression system and called the Command Center for assistance. FDNY responded to the accident and extinguished the fire.

The Public Transportation Safety Board staff finds that the most probable cause of the fire was the failure of the crimp connection of the terminal to the solenoid end of the battery cable.

Contributing to the accident was the failure of the maintenance personnel to identify the existing oxidation on the solenoid end of the battery cable during the last PMI and perform a positive repair.

The MTA BC reviewed the accident on April 28, 2008 and determined that the root cause of the fire was an overheated positive cable at the crimped connection on the starter solenoid. The two mechanics involved in the repair were issued a verbal warning and were reinstructed.

Based on the action taken by the MTA BC regarding this fire, the Public Transportation Safety Board staff makes no recommendations.

INVESTIGATOR: Mikhail Palanker

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CHIEF, ACCIDENT INVESTIGATION SECTION

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DIRECTOR, PCSB, NYSDOT