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IMMEDIATE

NYC Transit Begins Correcting Antiquated Speed Limits & Fixing Faulty Signals as Part of 'Save Safe Seconds' Campaign to Safely Improve Subway Performance

MTA New York City Transit announced today that as part of the agency's "Save Safe Seconds" campaign to safely improve subway performance, a multidisciplinary team of engineers and other safety-focused officials working closely with union partners have begun correcting antiquated speed limits and fixing faulty speed-regulating signals called "grade time signals" throughout the subway system.

This past weekend, several months of careful testing and study have led to the safe increasing of five speed limits between 36 St and 59 St on the **N R** line in Brooklyn, with 15 mile-per-hour zones being increased to 20 or 30 miles per hour. Twenty-nine more increases throughout the system have also been approved by a safety committee and will be rolled out in coming weeks, with Transit officials estimating speed limits to be safely increased at more than 100 locations throughout the system by the springtime. The speed limit changes already approved increase speeds generally in the 10 to 20 mile per hour range to speeds that reach the 40s.

The same team doing this work is also testing and fixing speed regulating signals called "time signals" or "timer signals," with 95 percent of some 2,000 such signals tested since the initiative began in late August. Approximately 267 faulty timer signals have been discovered and approximately 30 of them have been fixed so far in what amounts to very labor-intensive work to inspect, diagnose and repair or replace numerous possible pieces of equipment during times of exclusive track access for workers such as weekends or nights.

"Safety is always our top priority, and we're working hard to maximize our subway's potential within the boundaries of stringent safety standards," said NYC Transit President Andy Byford. "Subway cars have come a long way in safety and performance since the system's speed limits were first put in place up to a century ago, and some speed-regulating signals have become miscalibrated over time, forcing trains to go slower than they need to. We're taking a fresh look, with no compromise to safety, at how to reduce delays and get people to their destinations sooner."

As operators are trained to proceed with safety as the primary factor, train speeds through any given area are impacted by many factors in addition to speed limits, such as congestion, unplanned diversions, equipment issues or trackwork. The positive effects of speed limit changes may be felt immediately under optimal conditions and after a period of operator acclimation to the new limits. The positive effects of timer signal repair work will be felt more long-term, as long segments of timer signal repairs must be completed before bulletins are issued and train operators are acclimated.

HISTORY OF SPEED LIMITS AND TIMER SIGNALS

The NYC subway system was built more than 100 years ago and early on in its existence, in order to provide for safe operations, various measures were put in place to ensure that trains were not going faster than the conditions they could handle. These measures ensure sufficient stopping distance for the braking capacity to a train ahead. They also provide for safe operation at switching points, on curves and grades, and when approaching a train stopped in a station.

One simple measure was placing "civil speed restrictions" – essentially just speed limits and signs, just like the ones drivers see on highways and roads – at various locations that that require reduced speeds throughout the system. The speed limits were designed to consider the operating characteristics of the trains that were in service at the time as well as track geometry.

Another measure involved the use of "grade time signals" or "timer signals" – signals connected to timing devices set to trip a train's emergency brakes if the train passes at a higher speed than allowed. This fail-safe system ensures safety by stopping a train if it goes too fast at a fixed point.

Over the decades, car design and track geometry have improved, allowing cars to maintain stability and safe operation at higher speeds, but the speed limits were not always changed to reflect these advancements in safety and comfort. Meanwhile, timer signals continued to be installed throughout the subway system, with an uptick after two fatal crashes in the 1990s – one at Union Square and one on the Williamsburg Bridge. Eventually, the number of timer signals grew to approximately 2,000 system-wide.

Over time, a number of these signals came to become overly restrictive due to a number of reasons, including wear and tear and the fact that rail replacements that did not restore timer equipment with complete precision could cause the equipment to become overly restrictive. This can cause trains to operate at slower speeds than they were actually intended and allowed to safely go. Over time, both safety measures – which have been extremely effective at their intended goal of preventing accidents – had the unintended consequence of slowing some trips and causing delays by forcing trains to go slower than safely able or allowed.

2018 DEVELOPMENT: 'SAVE SAFE SECONDS' CAMPAIGN

In 2018, new NYC Transit President Andy Byford took a fresh look at the entire system with an eye towards improving service safely and an emphasis on listening to customers and front-line employees about their experiences. Timer signals were a frequent topic, and President Byford instructed his team to investigate the issue and assemble a methodology by which timer signals could be completely surveyed, tested, inspected, and repaired. President Byford and Senior Vice President for Subways Sally Librera also initiated a broader campaign called "Save Safe Seconds," a program overseen by

Librera by which personnel have been engaged to help come up with ways to immediately improve subway performance and reduce delays, simply and affordably (or even at no cost) through better operating and service practices.

These priorities led to the creation in the summer of 2018 of the NYC Transit "SPEED Unit" – which stands for Subway Performance Evaluation, Education and Development. The unit is part of the broader "Save Safe Seconds" campaign.

Overseen by Vice President and Chief Officer of Service Delivery Barry Greenblatt, and led by Train Service Supervisor Phillip Dominguez, the SPEED Unit is part of a collaborative effort across multiple disciplines in NYC Transit and is also working hand-in-hand with union officials. The unit has traveled almost every mile of track in the NYC subway system in an empty 10-car train and armed with a radar gun performing a number of exercises and tests to find ways for passenger trains to move faster from station to station while still maintaining established standards for safety and comfort.