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WMSC Inspection Report 20250815

ISSUED 8/20/2025

Inspection Details

Title: Arlington Cemetery Train Approach Speed Adjustment

Location: Arlington Cemetery (C06)

Date of Inspection: 8/15/2025 (into 8/16/2025)

Time of Inspection: 11:30pm to 4:30am

Announced (8/14/2025 via email to Automatic Train Control Supervisor)

Risk-Based (Safety Certification Oversight, Station Overruns)

Functional Area: Automatic Train Control & Signals

Hazard Rating: 3B

Overview

On August 15, 2025, a WMSC inspector attended planned, overnight automatic train control (ATC) work to mitigate the elevated levels of station overrun events at Arlington Cemetery Station (C06). This work involved reprogramming the maximum allowable train approach speed to reduce the train stopping distance on platform 2 when in automatic train operation.

This is a risk-based inspection based on the WMSC's June 12, 2025, Letter of Concurrence that Metrorail may activate Automatic Train Operation and Return to Design Speed on the Blue, Orange, and Silver Lines. The WMSC's concurrence was made contingent on six items,[1] one was that Metrorail continue to analyze and mitigate station overrun events. Since Metrorail's activation of ATO, the rate of station overruns has been elevated compared to levels observed during manual operation.[2] Metrorail is actively working to mitigate station overruns during Automatic Train Operations. Certain stations experience overruns at significantly higher rates than others and each

[1] List of Blue, Orange, Silver concurrence contingencies: Completion of the 7000 Series railcar antenna normalization procedure, engineering disablement of the Station Stop Cancel button on 7000 Series railcars, ongoing analysis of station overrun events and documentation of causes and mitigations by the ATO Governance Committee, rules compliance checks with regular reporting of monitoring results, prepare and provide to the WMSC a single detailed technical analysis that follows ATO station overrun data reviews for at least 180 days following simultaneous ATO operations on all Metrorail lines, and evaluation of ATO-related training, based on the results of station overrun investigative activities, especially for train operators, to determine limitations or gaps, then revise training as needed.

[2] June 2024 presented 13 station overruns all in manual mode as ATO was not yet in use. June 2025 presented 580 station overruns in ATO. (Source: Station Overrun Analysis Metrorail Public Safety Dashboards.)

station is presenting unique challenges requiring specific mitigations—including permanent installation and engineering modifications. The August 15, 2025 overnight track work at Arlington Cemetery Station (C06) is one example of a unique mitigation: Metrorail would adjust the train approach speed from 65 mph to 50 mph with the goal of reducing station stopping distances at the station, and, therefore, reduce the rate of station overruns at Arlington Cemetery Station.

After concluding the inspection, the WMSC inspectors conducted a debrief with the Automatic Train Control Maintenance Supervisor, in accordance with Program Standard Section 6.F.1.

Defects and Corrective Actions

WMSC Inspections identify safety issues that may be classified as defects, findings, or recommendations. Findings and recommendations are defined by Program Standard Section 5.E.2 and 5.E.3 respectively. Ordinarily, issues identified in a WMSC inspection report are classified as defects. Defects are specific safety issues of non-conformance/non-compliance that are identified and that require remedial action.

This inspection did not identify any findings or recommendations and therefore does not require a WMSC Corrective Action Plan in accordance with Program Standard Section 5.E.4.

Defect Observations and Determinations

The WMSC inspector observed the work overnight (August 15, 2025, into August 16) to inspect adherence to the procedure to modify the maximum allowable speed as outlined in Metrorail's temporary configuration plan (TCP-25-0026-C06, Rev. 0.0, July 11, 2025). During the inspection all employees present were using personal protective equipment (PPE) which included reflective vests, hard hats, radios, work gloves, and safety glasses as required by the work. An effective job safety briefing that covered all required elements was held with all members of the supporting work crew before entering the train control room (TCR).

The crew appeared properly staffed for conducting the procedure as no individual was tasked with multiple roles and the crew also included ATC engineering support and supervisor oversight to ensure that the work was completed on time. The time to complete this procedure was a particular concern because, as originally planned, the track rights were from 2:00am to 6:00am; however, the control center only granted rights at 2:30am and the crew was told to clear by 5:00am.

The procedure included a list of tasks to prepare each track circuit for measurements that needed to be recorded and checked against required thresholds to ensure conformance. Checks were also conducted of equipment, wire jumpers, and components to confirm all were within proper thresholds to be used for the modification. The procedure also included coordination with the next stations on either side of Arlington Cemetery: Rosslyn (C05) to the west and Pentagon (C07) to the east, where additional team members were placed to align the switches required for testing.

WMSC Inspector did not observe any challenges with regard to time available to complete this work and all communication amongst the work crew matched the requirements of the temporary configuration plan.

This inspection did not identify any defects based on information known to the inspector at the time of the inspection.

Next Steps

Please respond **by Monday, August 25, 2025,** to acknowledge receipt and to convey responses to the WMSC.