

SUMMARY

The Lightning Strike and Long Island Rail Road Service Disruption—September 29, 2011 MTA/OIG Report #2012-01

A lightning strike created a power surge that disabled the signal system west of the Jamaica railroad station, during the evening rush on September 29, 2011. Several hours later, a LIRR worker inadvertently disabled the signal system east of that station. Nearly twelve hours after the strike, LIRR restored full service, ending a disruption that affected tens of thousands of commuters. The LIRR, its signal system designer, and an LIRR consultant, promptly commenced an investigation to determine how the signals were disabled.

Simultaneously, the Office of the MTA Inspector began a review of the circumstances of the lightning strike and its aftermath, including the investigation conducted by LIRR and its consultants, to be sure that the railroad and its consultants identified and carefully analyzed all of the critical factors contributing to the outage and produced an effective action plan. Furthermore, our current review regarding the lightning strike provided an opportunity for us to revisit a review that we performed with LIRR in 2007; our purpose now being to determine whether the LIRR improved emergency staffing and communication.

As of this writing, we issued a report finding that the LIRR and its signal system designer share responsibility for the crippling effects of the power surge and its aftermath. Most important, we found that the power outage and subsequent delay resulted from its contractor's design limitations and the railroad's installation deficiencies, the critical deficiency being the use of a single wrong connector to add a remote monitor to the system. We also made a series of recommendations to LIRR, including confirming compatibility with the designer prior to installing any signal modifications and improving its quality assurance and quality control. Further, we recommended that the MTA request its own independent engineering consultant to review the upgrades planned under the agreement between LIRR and its contractor to confirm that all necessary steps are being taken to provide the appropriate level of lightning protection. Regarding emergency staffing and communication, we recommended that LIRR determine analytically its additional staffing needs; include that number in its Emergency Action Plan; devise a cost effective means of producing the requisite staff in emergencies; and further develop and refine its protocols to facilitate the dissemination of appropriate information to passengers on stranded or standing trains. Both LIRR and the MTA accepted our recommendations and began to implement them.

Press

[Wall Street Journal article 4-12-12 - One Worker Wrong Part-LIRR Outage](#)

[Newday article 4-12-12 - Missed Connection](#)

[NY Times article 4-12-12 - Lighting That Halted LIRR Got Help From Workers Error Report Says](#)

[NY Post article 4-12-12 - How LIRR blew it in shutdown](#)

[NY Daily News Editorial 10/5/2011 - MTA inspector general must get to the bottom of Long Island Rail Road lightning fiasco](#)

[NY Daily News 10/3/2011 - Review's on for bolt jolt of service on the LIRR](#)

[Newsday 10/5/2011 - Probe of LIRR lapse](#)

[Newsday 9/30/2011 - Stranded! Riders stuck on trains for hours after lightning stops LIRR](#)

[Newsday 10/1/2011 - What went wrong? LIRR starts probe of how lightning halted system; Shed containing controls was hit, railroad says](#)

[Newsday 10/25/2011 - LIRR Probe Reveals Error](#)

[Newsday 10/24/2011 - Railroad drafts 8-point pledge to keep riders informed, safe](#)