Inclement Weather Preparations

NATIONAL NETWORK

Amtrak operates a nationwide rail network, serving more than 500 destinations in 46 states, the District of Columbia and three Canadian provinces on more than 21,300 miles of routes. Throughout the Amtrak national network, we work around-the-clock to ensure reliable service and safety during inclement weather.

Actively Monitoring Storms

Our 24-hour Consolidated National Operations Center (CNOC), Train Control Centers and Emergency Management personnel are monitoring the latest weather conditions 24/7, assessing the state of the railroad and related infrastructure in real-time and coordinating any necessary response, with assistance from a private weather forecasting firm. CNOC duty officers also work closely with other railroads that own and maintain tracks and other systems or stations used by Amtrak.

An Amtrak employee at the Szabo Control Center. This Chicago facility is one of five Amtrak dispatching offices that control 2,500 trains with nearly 900,000 daily passengers.

If Amtrak plans to operate a modified schedule of service, we encourage customers to check their train status on Amtrak.com or by using the Amtrak mobile apps before traveling to the station. Planned changes to train schedules, or announcements about service changes, are made as far in advance as possible and posted on our Service Alerts & Notices page at Amtrak.com/alerts. Short-notice alerts are also displayed at the top of the Amtrak.com homepage.

Additional Staffing

Mechanical, Engineering and Operations forces mobilize additional crews to ensure safe and efficient operation of the railroad. Additional onboard staff are pre-positioned to respond should a need arise. As always, our goal is to ensure passenger safety and comfort while keeping trains moving, and minimizing delays, so our employees work as quickly and safely as possible.

CNOC personnel monitor weather conditions and assess the impact to Amtrak operations.

AMTRAK-OWNED PROPERTY

Amtrak is able to implement additional efforts along the right-of-way on Amtrak-owned property including: the majority of the Northeast Corridor (NEC) spine between Washington, D.C., to Boston.; the Keystone corridor between Philadelphia and Harrisburg, Penn.; the Springfield Line between New Haven, Conn., and Springfield, Mass.; and the Michigan Line between Porter, Ind., and Kalamazoo, Mich. Amtrak also maintains right-of-way owned by the State of Michigan between Kalamazoo and Dearborn.

Some of those additional efforts along Amtrak-owned property can include:

Tree-Trimming Crews

Amtrak engages in a year-round, tree-trimming program to proactively minimize downed trees and branches along the right-of way, which could damage the overhead electrical power system (catenary) or prevent safe passage of trains. During inclement weather, to supplement standard coverage, independent contractors are on standby to quickly respond to reports of downed trees or branches along the right-of-way.

Equipment Positioning

To more quickly respond to potential problems, diesel locomotives and on-track maintenance equipment are strategically positioned. Should downed trees or branches disable the overhead electrical system, diesel power can help move trains when it is safe to do so, and on-track equipment can be dispatched to make any necessary infrastructure repairs. During heavy snow falls, Amtrak uses jet-powered snow blowers to clear snow, ice and other debris off of tracks. The snow blowers are positioned in areas with typically heavy snowfall such as the NEC, Albany and Chicago.

An Amtrak jet-powered snow blower.

Switch Heater Inspections

To make sure track switches are working during inclement weather, Amtrak inspects switch heaters in affected areas to make sure they are in good working order. During cold weather, Amtrak activates switch heaters, lubricates the switches, and treats them with anti-freeze agents.

Catenary Wire Inspections and Repair

Amtrak trains running along the Northeast and Keystone corridors are powered by overhead electrical wires called a catenary system. The catenary system provides traction power to trains, allowing them to move quickly up and down the corridors, and also powers other onboard systems. Dramatic swings in temperature (both hot and cold) can cause the catenary wires to expand and contract, which can affect the tension that supports them. Large tension swings can sometimes cause components in the catenary system to fail.

Acela Express trains operate using a catenary system, pictured at top.

Amtrak deploys forces to patrol the wires as well as inspect trains to catch any issues before they escalate. To make repairs to catenary wire, Amtrak Engineering crews using a specialized maintenance vehicle called a Catenary Car, which must be moved into the area in order to make repairs.

Smart Technology ACS-64 Electric Locomotives

A new fleet of advanced-technology electric locomotives, known as ACS-64, operate on the Northeast and Keystone corridors. The state-of-the-art microprocessor system installed in the locomotives allows for self-diagnosis of technical issues, which helps ensure power is maintained to the railcars to keep heating, cooling and other systems working, the lights on, and the doors operational.

Amtrak Keystone Service, led by an ACS-64 locomotive, operates during 2016 blizzard. Photo Credit: Gary Pancavage.

Assistance from Host Railroads and Other Partners

In areas that are not owned or maintained by Amtrak, we also rely on assistance from our railroad partners during inclement weather. In anticipation of a storm, host railroad partners can deploy a variety of preparation efforts including stationing repair crews, staging equipment and maintenance materials in strategic areas to address electric traction and signal problems, removing critical equipment from low-lying points, and conducting inspection patrols during and after a storm to identify damage and assess risk of further damage.

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