

# Heat Preparations

## How Amtrak Responds to Extreme Heat



### Extreme Heat

As a standard safety practice, railroads often impose heat restrictions during warmer months that require locomotive engineers to operate trains at lower speeds.

### How Amtrak Measures Rail Temperature

Specific temperature thresholds for implementing heat restrictions differ depending on who owns the tracks. All commuter and freight entities operating on Amtrak infrastructure are required to follow Amtrak heat restrictions.

#### Amtrak monitors rail temperatures and weather conditions along its right-of-way in the following locations:

- Northeast Corridor (between Washington, D.C., and Boston)
- Harrisburg Line in Pennsylvania
- Empire Line in New York
- Springfield Line in Connecticut and Massachusetts
- Michigan Line, including a portion in Indiana

### Putting Customers First

Our goal is to safeguard customers and employees to ensure our trains are moving with minimal delays. Amtrak takes a proactive approach to notify our customers of heat-related delays. Customers will receive direct notifications on their day of travel if their departure cities are within the heat advisory area. Additional information is provided on [Amtrak.com](https://www.amtrak.com).

### When Amtrak Activates Heat Restrictions

Amtrak issues heat restrictions when ambient temperatures are greater than 95 degrees

Fahrenheit. Amtrak also reduces speeds when the tracks themselves reach 128 degrees Fahrenheit.



### Catenary Wires

Amtrak trains running along the Northeast and Keystone Corridors are powered by overhead wires called a catenary system. The system provides electrical power to trains. While Amtrak regularly inspects trains to address issues before they occur, dramatic swings in temperature (both hot and cold) can cause the catenary wires to expand and contract.

These tension swings can occasionally cause components in the catenary system to fail. If the catenary wire is damaged, power must be shut down, which can cause a service delay or suspension as repairs are made.

### Moveable Bridges

Drawbridges and other moveable bridges can also be affected by high temperatures. As temperatures increase, moving these structures in high heat can

cause delays for marine or other traffic. Amtrak takes routine steps to maintain bridge reliability.



## Changing Climate Conditions

Amtrak is seeing how climate conditions impact on-time performance (OTP) and is taking action. To better understand these impacts, Amtrak commissioned the first Northeast Corridor Climate Vulnerability Assessment and Strategic Plan in 2022 and kicked off a National Network Climate Vulnerability Assessment. These projects will enable Amtrak to prioritize climate change risks, mitigate impacts and better serve our customers so we can continually adapt toward a state of greater resilience. Our vulnerability assessment can be found [here](#).

## Operating Plan

In the event that a train loses power and/or air conditioning, Amtrak focuses on the needs of passengers. Elements of the plan include:

### **Constant Monitoring of Onboard Conditions:**

Amtrak conductors and senior managers continually monitor on-board conditions, identify passengers with special needs and communicate that information to the National Operations Center. As appropriate, and as safety allows, conductors may open vestibule doors to facilitate air flow and call in the Amtrak Police Department and/or local emergency response crews to assist with passenger needs. Water and other beverages are stored onboard trains and Amtrak Police Department vehicles are stocked with water to deliver to disabled trains.

**Communicating with Passengers:** Train crews make frequent announcements to provide passengers with current and accurate information. In addition, customers receive train status updates from direct messages via text, email and the [Amtrak mobile app](#).

### **Replacement Equipment for Passengers:**

Locomotives with assigned crews are positioned every 30 to 50 miles along the Northeast Corridor and mobilized in the event of a disabled train. In addition to other trains already in route, Amtrak may use staged and available trains in Washington D.C., Philadelphia or New York to supplement operations. Mechanical technicians also ride trains daily to monitor mechanical performance.