

# FTA

FEDERAL TRANSIT ADMINISTRATION

## **FTA Safety Bulletins 20-1 and 20-2**

### **End-of-Railcar Door Signage and Messaging; Inward- and Outward-Facing Image and Audio Recorders**

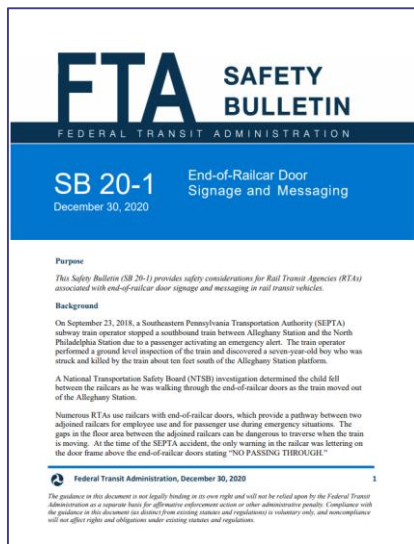
January 26, 2021



U.S. Department of Transportation  
Federal Transit Administration

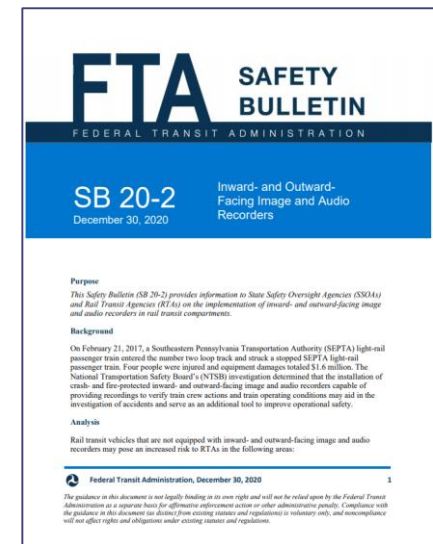
# Overview

FTA published two Safety Bulletins on December 30, 2020 to improve the safety of rail transit systems:



## SB 20-1: End of Railcar Door Signage and Messaging

## SB 20-2: Inward- and Outward-Facing Image and Audio Recorders



A Safety Bulletin:

- Does not impose mandatory requirements
- Alerts agencies to hazards and includes considerations

# Agenda

- **Safety Bulletin 20-1: End-of-Railcar Door Signage and Messaging**
  - Timeline
  - Safety Risks
  - Considerations for Transit Agencies
  - Resources Available
- **Safety Bulletin 20-2: Inward- and Outward-Facing Image and Audio Recorders**
  - Timeline
  - Safety Risks
  - Considerations for Transit Agencies
  - Resources Available

# **SB 20-1: End-of-Railcar Door Signage and Messaging**

# SB 20-1 Timeline

September  
2018

A SEPTA subway train struck and killed a child who had fallen between railcars as he passed through the end-of-railcar doors shortly after the train had departed the station

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August  
2019

NTSB recommended FTA require the development and implementation of safety messaging standards for end-of-railcar doors

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December  
2019

FTA responded that the newly established Safety Risk Management (SRM) process would be implemented to assess the safety concerns and inform FTA's next steps

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June  
2020

FTA began the SRM process for end-of-railcar door signage and messaging

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December  
2020

**FTA released Safety Bulletin 20-1 on End-of-Railcar Door Signage and Messaging**

# Safety Risks

Risks associated with end-of-railcar door signage:



**Inadequate signage and messaging** on dangers of passing between railcars poses safety risk to employees and passengers

- Likelihood of passengers traveling between railcars may increase if signage is inadequate



**Non-standardized end-of-railcar door messaging** across rail transit industry and within rail transit agencies (RTAs) may decrease likelihood of passengers being informed of dangers

# Considerations for Transit Agencies

- 1 Evaluate design and placement of warning signs and messages within railcars
  - For example, RTAs may consider whether end-of-railcar signage and messaging clearly communicates basic information such as:
    - Safety risk associated with moving between railcars
    - Who to contact in case of emergency

- 2 Consider the extent signage and messaging:
  - Attracts reader's attention
  - Clearly communicates policies and guidance
  - Reflects best practices for communicating safety messages

# Resources Available (1/2)

Existing American Public Transportation Association (APTA) voluntary standards for emergency signage:

- [\*\*APTA PR-PS-S-002-98, Rev.3\*\*](#) – **Emergency Signage for Egress/Access of Passenger Rail Equipment**
  - Specifies requirements for letter-size, luminance/illuminance criteria, sign size, and color and contrast of emergency signage
- [\*\*APTA RT-VIM-S-021-10, Rev.1\*\*](#) – **Emergency Signage for Rail Transit Vehicles**
  - Offers minimum performance criteria for emergency side-door signage. The design principles of the APTA standards may be applied to safety-critical end-of-railcar door signage



# Resources Available (2/2)

Additional resources containing information on developing end-of-railcar door signage and messaging:

1. Occupational Safety and Health Administration (OSHA), *Specifications for Accident Prevention Signs and Tags*, [Regulation 29 CFR 1910.145](#)
2. International Organization for Standardization ([ISO](#)) [3864-1:2011](#) and [ISO 7010:2019](#)
3. American National Standards Institute ([ANSI](#)) [Z535 series](#)

# **SB 20-2: Inward- and Outward-Facing Image and Audio Recorders**

# SB 20-2 Timeline

February  
2017

SEPTA light-rail passenger train caused a three-train accident after striking a light-rail passenger train which then derailed into another train

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August  
2017

NTSB formally recommended FTA require the installation of inward- and outward-facing image and audio recorders

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April 2019

APTA published their final Recommended Practice (RT-OP-RP-024-019) for Crash and Fire Protected Inward and Outward Facing Image and Audio Recorders in Rail Transit Operating Compartments

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June  
2019

FTA began the SRM process for inward- and outward-facing image and audio recorders and found that additional mitigations were warranted

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December  
2020

**FTA released Safety Bulletin 20-2 on Inward- and Outward-Facing Image and Audio Recorders**

# Safety Risks (1/2)

Rail transit vehicles not equipped with image and audio recorders may pose an increased risk to RTAs in the following areas:



## Accidents

- Agency may fail to correctly identify and address issues when accident investigation cannot make accurate causal determination
- Agency may be unable to apply targeted mitigations to reduce likelihood or severity of repeat accidents



## Unidentified Hazards

- Data from near-miss events could help RTAs develop mitigations before accident occurs
- Image and audio recorders could support proactive training and hazard mitigation programs

# Safety Risks (2/2)



## Operator Rule Violations

- Image and audio recorders may deter rule violations by rail transit operators
- Operator accountability could increase through additional performance monitoring
- RTAs could use data to develop and administer performance monitoring programs to proactively address non-compliances with operator rules and regulations

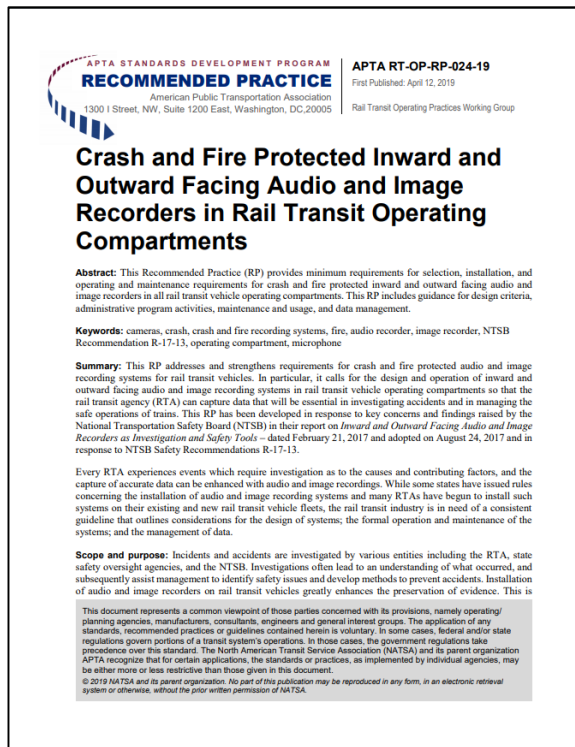
# Considerations for Transit Agencies

1 Install inward- and outward-facing image and audio recorders in controlling locomotive cabs and cab car operating compartments to support safety risk management and safety assurance activities required under Public Transportation Agency Safety Plan regulation (49 CFR Part 673)

- 2 Adopt APTA RT-OP-RP-024-019 as a method for determining:
- Minimum requirements for selection, installation, and operation of equipment
  - Maintenance requirements for crash and fire protected inward- and outward-facing image and audio recorders

# Resources Available (1/2)

Existing APTA recommended practice for crash and fire protected inward- and outward-facing image and audio recorders:



## [APTA RT-OP-RP-024-19](#) – Crash and Fire Protected Inward and Outward Facing Audio and Image Recorders in Rail Transit Operating Compartments

- Specifies requirements for selection, installation, operating requirements, and maintenance requirements for inward- and outward-facing audio and image recorders and lists related standards for design and performance

# Resources Available (2/2)

## RTA Funding Resources:

- Installation or retrofit of inward- and outward-facing image and audio recorders may be eligible expenses under FTA's grant programs, including:
  - Section 5307: Urbanized Area Formula Grants
  - Section 5309: Capital Investment Grants
  - Section 5337: State of Good Repair Grants

### FTA Resources:

- FTA Grant Program
- <https://www.transit.dot.gov/funding/grants/grant-programs>

### FTA Contact:

- FTA Regional Offices
- <https://www.transit.dot.gov/about/regional-offices/regional-offices>



# Contact Information

**FTA Office of System Safety**

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