

NATIONAL TRANSPORTATION SAFETY BOARD

Office of Railroad, Pipeline and Hazardous Materials Investigations

WASHINGTON, D. C. 20594



System Safety Factual Addendum

A. ACCIDENT

Description: Train Head-On Collision
Location: Cayce, South Carolina
Accident Date: February 4, 2018
Report date: September 24, 2018
NTSB accident number: RRD18MR003

B. PARTY MEMBERS

<p>Tomas Torres NTSB-Operations Group Chairman tomas.torres@ntsb.gov</p>	<p>Michael Hoepf, Ph.D. NTSB-Human Performance Group Chairman michael.hoepf@ntsb.gov</p>
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<p>Gregory Drakulic FRA Railroad Safety Specialist- Chief Inspector gergory.drakulic@dot.gov</p>	<p>Steve Ammons CSXT-Director Train Handling Rules & Practices steve_ammons@CSXT.com</p>
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C. SYSTEM SAFETY INFORMATION

Following the completion of the on-scene portion of the investigation, the NTSB requested additional documents, conducted further interviews, and held an investigative hearing. System safety information from these sources is presented in this addendum.

Documents

Host Railroad Relationship

Amtrak provided a document titled “Host Railroad Relationship,” which summarized Amtrak’s host railroad relationships.¹ The document states (page 2):

Amtrak’s operations on host railroads are primarily framed by statute, rather than arms-length economic transactions. Amtrak’s statutory rights are derived from The Rail Passenger Service Act of 1970 and subsequent amendments, now codified at 49 U.S.C. §§ 24101 et seq. These rights include:

- *Access to any host rail line in the US*
- *Use of host railroad facilities*
- *Payments based on host’s incremental cost*
- *Amtrak preference over freight service*
- *Condemnation authority*

Amtrak’s Operating Agreements with host railroads translate the general terms of the statute to host-specific negotiated terms and conditions that provide the foundation for day to day Amtrak operations on each host railroad, dealing with issues including:

- *Operation of existing service*
- *Service standards*
- *Implementing new service*
- *Payment amounts and terms for services provided by the host*
- *Liability apportionment*
- *Dispute resolution*

¹ See document “Exhibit-6-Amtrak Host Railroads Overview-2”

The document reveals that Amtrak has operating agreements with 29 host railroads for regularly scheduled services. Further, the agreements require annual updates of cost and schedule provisions, as well as periodic modification of access, liability, performance and responsibility provisions. According to the document, Amtrak’s Host Railroad Group serves as the primary liaison between all Amtrak departments and host railroads for issues related to network and service design, station services, and financial transactions governed by the host railroad operating agreements.

Host Railroad Agreement

Investigators requested and received a copy of the host railroad agreement between CSXT and Amtrak. The document is titled “Agreement Between National Railroad Passenger Corporation and CSX Transportation Incorporated,” and is dated June 1, 1999. According to the agreement, CSXT supervises and controls the movement of all Amtrak trains on CSXT rail lines, and Amtrak is governed by and subject to CSXT rules (see excerpt below from page 13 of the document).²

Section 3.7 CSXT Control and Supervision.

In the performance of services referred to in this Agreement, CSXT shall have sole control of the operation of Amtrak's Intercity Rail Passenger Trains while on the Rail Lines of CSXT. All personnel rendering any services which involve responsibility for CSXT's operating facilities or for the handling or movement of any Intercity Rail Passenger Train shall be subject to the direction, supervision and control of CSXT, and such services performed by or for Amtrak shall be governed by and subject to all then current operating and safety rules, orders, procedures and standards of CSXT with respect thereto.

² See document “CSX_Amtrak Agreement_Redacted”

Follow-Up Interviews

Information pertaining to operations on host railroads was discussed in two follow-up interviews. One interview was with a “Host Railroads Group,” consisting of two interviewees, including Amtrak’s “Director of Host Railroads”³ and “Senior Director of Host Railroads.”⁴ The full transcripts of these interviews are available on the public docket.

Host Railroads Group

The Host Railroads group stated that the host railroad agreements are “primarily are operating documents” that describe the business relationship between Amtrak and each host railroad. The agreements specify the services that Amtrak purchases and other business factors.

The Host Railroads group stated that the host railroad agreements contain incentives and penalties to facilitate on-time performance, as well provisions for dispute resolution. The interviewees were aware of instances in which host railroads had prioritized the movement of freight trains over Amtrak trains, even though Amtrak is supposed to be given preference over freight service.

The Host Railroads group stated that the host railroad agreements are not regulated by the FRA, although there is a statutory backdrop containing provisions for the operating agreements. The group believed that the host railroad agreements had been used since the formation of Amtrak in 1971.

The Host Railroads group indicated that the host railroad agreements generally mandate that Amtrak trains are subject to the rules and supervision of the host railroad. Investigators asked the group if they could clarify if safety is explicitly mentioned in the host railroad agreements. The Director of Host Railroads responded, “I can’t recall that it is” (p.19, line 12). The Senior Director of Host Railroads did not answer the question but instead allowed his counsel to respond (p.19, line 16).

The group was not aware of any instances in which a host railroad agreement facilitated an exchange of information about safety management systems. The Senior Director of Host Railroads believed that there were no provisions that would preclude Amtrak from requesting a different safety protocol than what the host would do on their own railroad. However, he did not know if Amtrak had ever made such a request.

³ See document “RRD18MR003_HostRailroadsPanel”

⁴ See document “RRD18MR003_JustinMeko”

Regarding Amtrak's internal communications, the Director of Host Railroads stated that his team discussed issues with the operating departments frequently, and Amtrak's safety department would periodically seek information from him pertaining to the host railroad agreements. However, he indicated that communicating safety information was not a core responsibility of his team, stating (p.35, lines 10-11) "Very seldom are we engaged in safety-related communications."

Vice President, Safety, Compliance and Training with Amtrak

Investigators also interviewed Amtrak's Vice President, Safety, Compliance and Training, who discussed Amtrak's systems safety efforts. He stated that in January 2018, Amtrak hired a new chief safety officer, and since that time, there had been an increased focus on implementing a safety management system (SMS). He said that the Executive Leadership Team had demonstrated their commitment to the SMS, but it was in an early phase of development.

Regarding safety culture, the Vice President, Safety, Compliance and Training stated that (p.32, lines 8-11) "if you look at Amtrak historically, there have been dramatic pendulum swings with external leaders at the top, and I think it's created an absence of culture."⁵ He contrasted this with other organizations that he had worked in, in which chairmen and executive leaders were "grown from within" thereby maintaining a more stable culture over the span of many years.

The Vice President, Safety, Compliance and Training acknowledged that Amtrak had several opportunities to improve safety. For instance, he indicated that joint efficiency testing could potentially be improved by increasing communication and collaboration with host railroads. He said that Amtrak was using improved information technology to gather additional data, which would be used to inform decisions about efficiently testing. In addition, he stated that Amtrak was pursuing improvements in the structure and efficiency of their safety committees. He indicated that to improve safety at Amtrak, it is necessary to conduct in-depth investigations of incidents, and learn from data.

⁵ During his interview with investigators, Amtrak's Vice President, Safety, Compliance and Training said, "external buyers," not "external leaders." However, Amtrak later clarified that he had intended to say, "external leaders."

Hearing

Several topics were discussed pertaining to the Cayce accident during the hearing. The full transcripts from both days of the hearing are available in the public docket.⁶

Host Railroad Agreements

The Amtrak Director of Host Railroads indicated that the host railroad agreements were neither operating documents, nor safety documents, but rather commercial documents (p.31, lines 7-10). He said that the agreements do not address efficiency testing, risk identification, risk mitigation, system safety, or operations during signal suspensions. The Federal Railroad Administration (FRA) Operating Practices Specialist stated that the FRA does not regulate the terms of the host railroad agreements.

The Amtrak Vice President, Safety, Compliance and Training stated that when Amtrak train crews operate on host railroads they are governed by the operating rules and supervision of the host railroad. He stated that there is not a means for Amtrak to insist that certain safety practices be implemented on host railroads, although Amtrak can “engage in a dialogue” with hosts and raise concerns.

Risk Management on Host Railroads

The Amtrak Vice President, Safety, Compliance and Training stated that, since the Cayce accident, Amtrak had developed and implemented a new signal suspension risk assessment approach. The approach, which he stated Amtrak has successfully deployed over 30 times, involves using input from host railroads to identify hazards, and then implementing a suite of risk mitigations during signal suspensions. For instance, he indicated that, “more often than not” Amtrak was applying operational mitigations such as reducing speed and approaching facing-point switches prepared to stop.

⁶ See documents “DCA18HR001-Rail SafetyHearing_07-10-18._Redacted” & “DCA18HR001-Rail SafetyHearing_07-11-18_Redacted”

The Amtrak Vice President, Safety, Compliance and Training stated that there had been a challenge conducting such risk assessments on host railroads in the past, but that there had been “dramatic” improvements in the “last several months,” which he attributed to Amtrak “being more proactive soliciting feedback and input from the hosts.” He said that in the past, risk assessments had been completed, but they “started and ended at the field level.” He stated that risk assessments were now being performed across the entire system, on all host railroads, with managerial oversight, and mitigations were being implemented that mandated a more cautious approach than the standard operating practices of the host railroad. He added that (p.46, lines 12-14), “We can no longer simply rely on the operating rulebook of a host and must instead augment our host operating practices in ways that meaningfully enhance safety of operations.”

Investigators spoke with Amtrak’s Chief Operating Officer about how Amtrak works with host railroads to assess and mitigate risk on host railroad lines. The Chief Operating Officer indicated that he was (p.43, line 23 – p.44, line 1) “not an expert on host railroad processes, but certainly I am aware that if we’ve got concerns within the operating rules or the systems of the host, we would go through our host railroad team.” He suggested that the Director of Host Railroads and his team would be the appropriate employees to “engage the host in conversation.”

Investigators asked the Chief Operating Officer about how Amtrak was using SMS principles to reduce risk during signal suspensions as compared to the methods Amtrak had used in the past. The Chief Operating Officer referenced the statement given by the Amtrak Vice President, Safety, Compliance and Training earlier in the hearing. The Chief Operating Officer added (p.45, lines 16-18) “what we do now is proactively look at the signal suspension, look at the data involved and make a decision on what we believe is the best way to proceed. He indicated that the new risk management approach is improving safety and Amtrak is now making “very good decisions.”

D. END OF REPORT

I have read and approve the Report

Tomas Torres
Operations Investigator
NTSB

//s//

Date 9/5/2018

Michael Hoepf, Ph.D.
Human Performance Investigator
NTSB

//s//

Date 9/5/2018

Ryan Frigo
System Safety
NTSB

//s//

Date 9/5/2018

Gregory Drakulic
Railroad Safety Specialist-Chief Inspector
FRA

//s//

Date 9/12/2018

Steve Ammons
Director Train Handling Rules & Practices
CSXT

//s//

Date 9/13/2018

Matt Campbell
Georgia State Legislative Director
SMART

//s//

Date 9/14/2018

Bryan Aldridge
Primary Investigator, Safety Task Force
BLET

//s//

Date 9/8/2018

Marcus Landy
South Carolina Operating Practice Inspector
Office Regulatory Staff

Date Response not received by deadline

Jonathan Hines
Senior Director, Compliance & Certifications
Safety Compliance and Training
Amtrak

//s//

Date 9/14/2018

Theresa Impastato
Sr. Director System Safety
Amtrak

//s//

Date 9/14/2018