Safety Board on Amtrak 501 Wreck: “Engineer was set up to fail”

On May 21st, the National Transportation Safety Board (NTSB) released its official investigative findings of the December 18th, 2017 wreck of Amtrak train #501. While making its maiden voyage on the newly refurbished Point Defiance Bypass route, the train entered a curve rated for 30 at 78 mph, resulting in the train’s derailment. Three passengers were killed, and 65 injured when the train derailed near Dupont, WA, about 20 miles south of Tacoma, with part of the train careening off an overpass onto a heavily trafficked highway below.

By the end of the week, it had become clear that neither engineers nor conductors had been properly qualified over the new route, with employees revealing that they had inadequate trips to familiarize themselves with it. In fact, up to seven engineers at a time had been crammed into a single locomotive to qualify as a group, even though the System General Road Foreman’s Notice at Amtrak states that a maximum of four employees may occupy the cab of a locomotive. And in order to properly qualify on any territory, an engineer must be seated in the operator’s seat and run the locomotive. In addition, conductors were not provided with head-end trips to qualify on the territory, but rather were expected to qualify in the body of the train or aboard the trailing unit at the hind end facing backwards. Some employees made their qualifying trips in the dark. Deprived of the proper qualifying, the conductor – unaware of the approaching curve - failed to alert the engineer in advance by radio (a procedure instituted by Amtrak a few years earlier as a result of a very similar overspeed related wreck on Metro-North in New York, December 2013. See The Highball, Winter 2014).

Despite all this slipshod “qualifying,” the company saw fit to run the inaugural train with no management official aboard the locomotive. Rather, the engineer had a conductor trainee up front who was not qualified on the territory! In addition, the engineer had not been properly trained on and familiarized with the new “Charger” locomotives that had just entered service. The cab camera record clearly shows him distracted by a feature on this style of engine while he was on the approach to the curve.

The NTSB report made note of all of this in its official report. "Investigators found there was a general sense that none of the participants (Amtrak, the Washington State Department of Transportation (WSDOT), the FRA and Sound Transit) fully understood the scope of their roles and responsibilities as they pertained to the safe operation of the service, which allowed critical safety areas to be unaddressed," the NTSB press release stated. According to NTSB Chair Robert Sumwalt, the crash was entirely preventable. The speed limits didn’t come with “appropriate mitigations,” he stated, and service should not have begun without certain safety measures in place. Sumwalt also noted there were “training gaps” for the train’s operators.

Lack of Positive Train Control (PTC) was another concern of the NTSB’s report. In combination with the shoddy qualifying, training, and familiarization provided by the company, “Beginning revenue service before PTC was operational set up the engineer to fail,” said Sumwalt. The agency made dozens of recommendations to all four agencies responsible for the crash. Some worthy of note include: Ensuring operating crewmembers demonstrate their proficiency on the physical characteristics of a territory by using all resources available to them, under daylight and nighttime conditions, and during observation rides, throttle time, and written examinations; Revising classroom and road training programs to ensure that operating crews fully understand all locomotive operating characteristics, alarms and the appropriate response to abnormal conditions; Requiring that all engineers undergo simulator training before operating new or unfamiliar equipment and when possible, undergo simulator training before operating in revenue service in a new territory; Implementing a formal, systematic approach to developing training and qualification programs to identify the most effective strategies for preparing crewmembers to safely operate new equipment on new territories.

However, the NTSB never addressed the question of WHY did the FRA, Amtrak, Sound Transit and WSDOT fail so miserably? The short answer of course is this country’s lack of commitment to public transportation and services, basic infrastructure, and public safety. Most commuter and other passenger train services in the U.S. run on a shoestring budget and are often underfunded and cash strapped. (The most glaring example of this in recent years is the crisis at New Jersey Transit. See The Highball, Fall 2018). NOT reported by the NTSB was what was going on behind the scenes at Amtrak. Newly appointed CEO Richard Anderson, who had won acclaim at Delta airlines for turning the fortunes of that company around, was in full cost-cutting mode now at Amtrak. In October, Anderson announced that management forces would be cut by 500 before the end of the year. Given this expedited schedule, countless managers across the Amtrak system were making snap decisions about their futures – take the buyout offered and leave the company by December 31st, or stick around and risk furlough or layoff? Hundreds of management personnel with years of experience were about to exit the company system-wide (including in the Pacific Northwest), just 13 days prior to the wreck of Train #501. To what extent did this management malaise figure in the tragic wreck that ensued? From the NTSB findings, we know that a profound management failure took place at the company.

Train accident investigator and former locomotive engineer John Hiatt says it is clear to him that lack of training and preparation led to the wreck. “Training is money, and in this case, it looks to me like they were worried about money and time, and safety was number three, at best, on their list.”