



Amtrak Cascades Derailment: Details & Potential Causes

Mobility Trends: #02 | Dec. 2017

On December 18, 2017, Amtrak *Cascades* train #501 – heading southbound from Seattle, Wash. to Portland, Ore., via Tacoma, Wash. – derailed en route to its next stop at the state’s capitol city of Olympia. The train derailed near a bridge crossing Interstate 5 near DuPont, Wash.

What We Know

- 3 fatalities, revised down from 6
- Train was likely traveling at 81 mph; the limit going into the curve before the bridge (yellow circle on map) over I-5 was no more than 30 mph (nearly same speed parameters of the 2013 Metro North accident in the Bronx and similar to Amtrak in North Philadelphia in 2015, which was traveling at 100 mph in a 50 mph zone)
- The trip was the first to carry ticketed passengers on the new Port Defiance Bypass between Tacoma and DuPont, which has been extensively rebuilt and upgraded, as well as tested for more than 6 months;
- The train was running about 25 minutes late out of Tacoma (trip time Seattle-Portland is 3 hrs, 20 min):
- Engineer was alive and lucid following the derailment and immediately notified Amtrak dispatch. He reported nothing unusual other than the train was off the rails.

Some Potential Causes (possibly in combination)

- Failure to obey speed limits (possibly due to late status)
- Unfamiliarity with the route and/or equipment
- Distraction
- Failure of engine speedometer
- Failure of engine and/or train brakes
- Missing or obstructed speed limit makers
- Signal failure or track defect
- Object on rails or trackbed (intentionally placed or not)

While essentially brand new, there have been no reported operational failures of the Siemens Charger locomotives. While not new, the same is true for the Talgo coaches, which have been operating exclusively on the *Cascades* route since 1998.

Note (via @KostelecPlan): A passenger train would have to derail with 3 deaths once every 2 days for an entire year to equal the total annual deaths generated by the highway system & drivers in state of Washington alone.



@OfficialCTAA
@RAILMag

RAIL