

## INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE  
INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE  
ATLANTIC COAST LINE RAILROAD NEAR HORTENSE, GA., ON  
JULY 7, 1930.

August 7, 1930.

To the Commission

On July 7, 1930, there was a derailment of a passenger train on the Atlantic Coast Line Railroad near Hortense, Ga., which resulted in the death of one passenger, and the injury of five passengers, two Pullman employees and four railroad employees.

Location and method of operation

This accident occurred on that part of the Savannah District of the Second Division extending between Jesup and Folsom, Ga., a distance of 54.5 miles, and is a single-track line over which trains are operated by time-table, train orders, and an automatic block-signal system. The accident occurred at a point approximately two miles south of Hortense, approaching this point from the north the track is tangent for a distance of about 1 mile to the point of accident and for some distance beyond that point, and the grade is practically level.

In the vicinity of the point of accident the track is laid with 100-pound rails, 39 feet in length with an average of 24 hardwood ties to the rail-length, and is equipped with 4 rail anchors to each rail-length. The track is ballasted with slag to a depth of about 16 inches, and is well maintained. The maximum speed permitted for passenger trains is 60 miles per hour.

The weather was clear and exceptionally hot at the time of the accident, which occurred about 1.46 p. m.

Description

Southbound passenger train No. 83 consisted of four express cars, one postal car, one baggage car, two coaches, one dining car, and four Pullman sleeping cars, all of steel construction, hauled by engine 1527, and was in charge of Conductor Culver and Enginemen Baughn. This train departed

from Jesup, 19.1 miles north of Hortense at 1.14 p. m., 11 minutes late, passed Hortense at 1.42 p. m., 12 minutes late and was derailed shortly afterwards while traveling at an estimated speed of between 45 and 50 miles per hour.

The rear truck of the 9th car and the 10th to 13th cars, inclusive, were derailed, the four rear cars coming to rest on their right sides on the west side of the track with the rear end of the 10th car 518 feet south of the initial point of derailment; all of the derailed cars were more or less damaged. The balance of the train remained on the track although the 8th car sustained slight damage.

#### Summary of evidence

Road Foreman of Engines Coward stated that he was operating the engine and that the train passed Hortense at a speed of about 45 miles per hour, when it reached a point about 2 miles south of that point the engine lurched slightly as though it had encountered a rough spot in the track. At about the same time the signal whistle in the cab sounded which caused him to look back and he observed the rear end of one of the cars was out of line, he immediately applied the brakes in emergency and shut off steam. As soon as the train stopped he went back and assisted in removing the occupants of the wrecked cars. He then continued back to the initial point of derailment where he noticed four or five track jacks sitting alongside the track but they were not close enough to interfere with the movement of the train, there were no jacks under the track. He inspected the equipment but found nothing that could have contributed to the cause of the accident. In his opinion the accident was caused by the track buckling under the train which he attributed to the excessive heat. He also said that he did not consider the rough spot in the track was sufficient to cause him to apply the brakes at the time the engine passed over it.

Engineman Baughn stated that while approaching the point of accident he was riding on the fireman's seatbox keeping a sharp lookout ahead but did not notice anything unusual about the condition of the track. His first intimation of anything wrong was when there was a jolt of the engine, he had felt such a jolt on numerous occasions and did not consider that it was anything out of the ordinary. At almost the same time there appeared to be a pull-back of the train which he thought at the time was due to a burst air hose as he noticed that the air pressure was decreasing. He said the road foreman of engines apparently was aware of some difficulty as he immediately placed the brake valve in emergency position and brought the train to a stop. Engine-

man Baughn estimated the speed at 45 or 50 miles per hour at the time of the accident, which speed he did not consider contributed to the cause of the accident in view of the fact that the maximum permissible speed is 60 miles per hour.

Fireman Byington stated that he was engaged in firing at the time of the accident and could offer no suggestions as to the cause of the accident. He felt no lurch of the engine just prior to the derailment, and did not hear any sound of the cab signal although if it had have blown he might not have heard it.

Baggageman Prior stated that he was riding in the seventh car and just prior to the accident he felt a slight rise of the car which he considered nothing unusual and was not sufficient to cause any alarm. He estimated the speed at the time of the accident at not more than 45 miles per hour, as soon as the equipment came to rest he noted the time to be between 1.45 and 1.46 p. m. He then went back and examined the track but as it was badly damaged he was unable to determine whether track conditions were the cause of the accident, he thought that the intense heat had buckled the rails, he thought the temperature was more than 100°. He also inspected the equipment but did not discover anything that could have caused the accident.

Conductor Culver stated that he had just returned to his seat in the eighth car after looking at the board at Hortense when the car began to swerve and upon looking back he noticed the train had parted but due to dust flying he could not see what had occurred to the rear portion of the train. He said the accident occurred at 1.46 p. m. He had not felt any jerking of the train nor any rough spots in the track until the train reached the point of accident. He examined the equipment after the accident but could find nothing that could have caused the accident. He noticed the track was torn up at the point of accident and did not go back beyond that point to look for any defects. He concluded, from the side-to-side motion of the car in which he was riding, that the track buckled and became out of line.

Flagman Davis stated that he was riding in the rear car and had no warning of danger until it was suddenly derailed. As a result of being injured in the accident he made no effort to learn what caused it.

Engineman-Fireman Daniel, who was deadheading, stated that he was riding in the eighth car and when he felt a lateral lurch of the car he looked out of the window and saw part of the train going down the embankment on the right.

side of the track. He examined the cars, wheels and braking equipment of the derailed equipment the best he could in the position they were in and everything seemed to be intact. He noticed that at the point of derailment the west rail was gone and the rail on the east side of the track had been forced to one side.

Section Foreman Skinner stated that on the day of the accident he resurfaced the track in the vicinity of the point of accident, which task was completed at about 10.15 a. m. This work consisted of raising the track about  $2\frac{1}{2}$  inches by placing jacks under the rails and then tamping ballast under the ties, as well as renewing such ties that were necessary. He had renewed four ties under the rail on which the first marks of derailment appeared, and was positive that the track was safe to operate trains at their scheduled speed, in fact he stationed his crew and himself alongside the track to observe any stress when trains passed over it. Southbound train No. 27 passed at about 10.30 a. m., and northbound train No. 82 about 11.00 a. m., and there was no indication of any depression. He also inspected this portion of track before 1.00 p. m., and again a short time before the arrival of train No. 83 and found it to be in perfect alignment. When train No. 83 approached the point of accident he had his crew divided on each side of the track to observe conditions and the first knowledge he had of anything wrong was when the equipment was derailed. He attributed the cause of the accident to the track buckling under the train due to the expansion of the rails as a result of the excessive heat. He said that he had never known of a case of this kind before, but had experienced difficulty with the track buckling during hot weather after it had been resurfaced and no trains were in the vicinity.

Roadmaster Hoeges stated that although the track in this vicinity had been resurfaced prior to the accident it has not been a practice to place slow orders when work of this nature is being performed. His last trip through that territory was on July 3 and he considered the track just as good as on any section under his jurisdiction. He arrived at the scene of accident at 7.35 p. m., on the day it occurred but at that time the track was undergoing repairs and he was unable to make any examination to determine the cause of the derailment. He further stated that he considered Section Foreman Skinner a man of good judgment and that the work performed on the track had nothing to do with the accident except that it naturally softened the track structure and rendered it less resistible than it would have been had it not been disturbed for some time.

The first mark of derailment appeared on the ties about 6 inches from the inside of the west rail. The track was torn up for a distance of about 700 feet but upon assembling the rails that had been in place prior to the accident it was found that at a point 9 feet from the receiving end of the east rail, and directly opposite from where the first flange mark appeared, this rail had a very noticeable warp or outward bend and the next three rails south of it on the same side of the track were turned on their left sides and flange marks appeared on the inside web of these rails.

### Conclusions

This accident apparently was caused by the track buckling under the train due to the excessive heat prevailing at the time.

According to the evidence the track appeared to be in proper condition until the train reached the point where it was derailed, and the forward portion safely passed over this point. Road Foreman of Engines Coward and Enginemen Baughn felt a slight jer of the engine when it passed the point of derailment, but this was not sufficient to alarm them, the only abnormal condition noted was lateral movement of some of the cars just prior to the derailment of the rear portion of the train.

An inspection of the equipment disclosed nothing that could have contributed to the cause of the accident. Although the track was torn up for a considerable distance none of the rails was broken. It was very hot in this vicinity at the time of accident, and the fact that the track had been disturbed during the day of the accident, may have made it more susceptible to failure from expansion than it would have been had the track been firmly seated in the ballast. While two trains had passed through that territory after repairs had been made there was a period of about 2 hours and 45 minutes after the last train passed until the derailment occurred and during that interval the heat increased, and it is believed the rails buckled under this train.

The employees involved were experienced men and at the time of the accident none of them had been on duty in violation of any of the provisions of the hours of service law.

Respectfully submitted,

W. P. BORLAND,

Director.