

1948

INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY CONCERNING AN
ACCIDENT ON THE ATLANTIC COAST LINE RAILROAD AT
FORRESTER, FLA., ON DECEMBER 3, 1934.

January 21, 1935.

To the Commission:

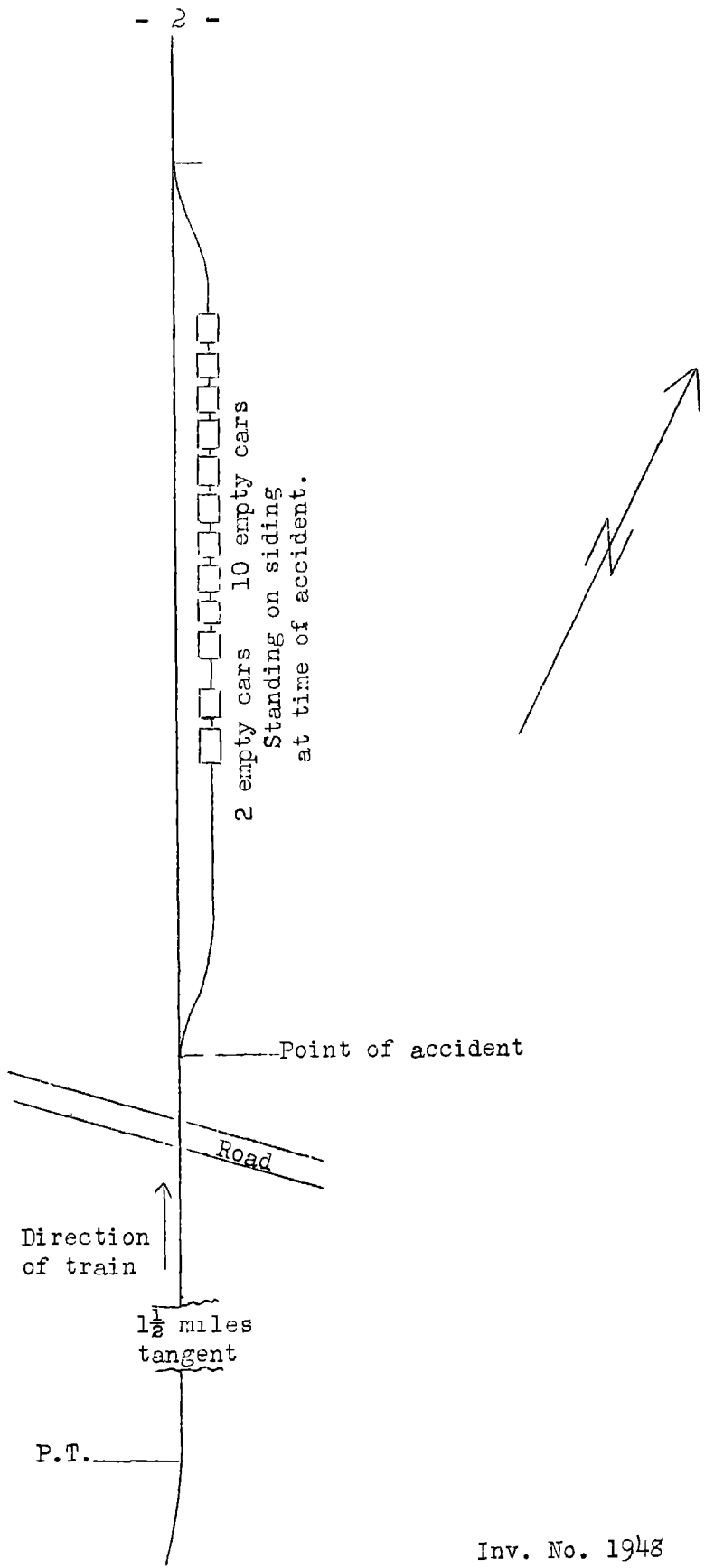
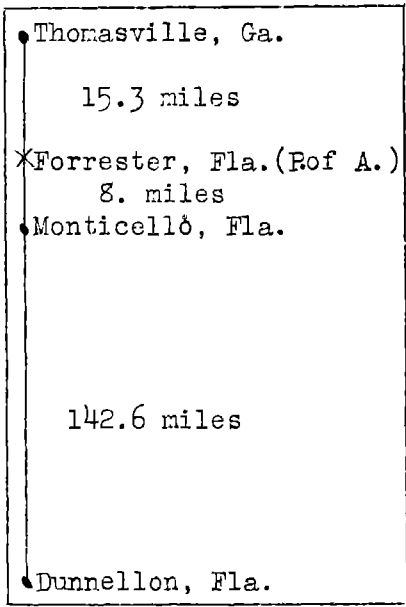
On December 3, 1934, there was a derailment of a passenger train on the Atlantic Coast Line Railroad at Forrester, Fla., which resulted in the death of 2 employees and 1 person carried under contract, and the injury of 4 passengers and 5 persons carried under contract.

Location and method of operation

This accident occurred on that part of the Ocala District of the Southern Division extending between Dunnellon, Fla., and Thomasville, Ga., a distance of 165.9 miles; in the vicinity of the point of accident this is a single-track line over which trains are operated by time table and train orders, no block-signal system being in use. The accident occurred at the south switch of the siding at Forrester; approaching from the south, the track is tangent for a distance of more than $1\frac{1}{2}$ miles to the switch and for a considerable distance beyond that point. In this vicinity the grade is undulating and at the point of accident is 0.33 percent ascending for north-bound trains.

The switch involved is a facing-point switch for north-bound trains, with a No. 10 turnout, and leads off the main track to the right to the siding which parallels the main track on the east and is 1,001 feet in length. The switch stand is of the Ramapo type, located on the east side of the track, and is equipped with targets the centers of which are $3\frac{1}{2}$ feet above the head-block; the switch stand is not equipped with a switch lamp; on this district switch lamps are used only within yard limits. When the switch is closed a circular green target is displayed and when it is open an arrow-shaped red target is displayed. The siding is equipped with derail devices at each end; it is generally used for commercial purposes and not as a passing track, and at the time of the accident was occupied by 12 empty freight cars in 2 separate cuts, 10 of the cars being at the northern end of the siding and the other 2 cars being near the southern end.

The track is laid with 85-pound rails, 33 feet in length,



Inv. No. 1948
 Atlantic Coast Line RR,
 Forrester, Florida
 Dec. 3, 1934

with an average of 19 ties to the rail length, single-spiked and fully tieplated, and ballasted with cinders to a depth of about 10 inches. The track is well maintained. The speed of passenger trains is limited to 50 miles per hour.

The weather was clear at the time of the accident, which occurred about 12:07 a.m.

Description

Train No. 32, a north-bound passenger train, known as the Southland, consisted of 1 mail car, 1 express car, 3 coaches, 2 sleeping cars, 1 deadhead sleeping car, 1 diner, 1 sleeping car and 1 observation car, all of steel construction and in the order named, hauled by engine 1701, and was in charge of Conductor Morris and Engineman Van Meter. This train left Monticello, about 8 miles south of Forrester, at 11:53 p.m., according to the train sheet, 10 minutes late, and was derailed at the south switch of the siding at Forrester while traveling at a speed estimated to have been about 50 miles per hour.

Engine 1701, together with its tender, the first five cars and the forward truck of the sixth car were derailed, while the wreckage struck the cut of two freight cars standing near the south end of the siding and overturned and destroyed them. The engine and tender stopped on their left sides, with the engine across and almost at right angles to the track, at a point 295 feet north of the switch. The first five cars in the train were across the track in various positions, remaining upright with the exception of the first car, which was on its side and practically demolished; the rear of the sixth car stood over the switch. The employees killed were the engineman and fireman.

Summary of evidence

Engineman Van Meter was interviewed briefly at the hospital the day prior to his death; he stated that as his train approached Forrester it was very dark with fog in spots, and he did not see the switch until the engine was very close to it, and he then saw that the target was displaying a red indication; he called a warning of danger to the fireman, at which time he had his hand on the brake valve, and he thought that he applied the brakes but was not positive about it. The headlight was burning brightly and the air brakes had been tested and worked properly en route. He did not notice any one around the track as his train approached the switch.

Conductor Morris and Baggage-master Cribb were in the third car; the conductor said that the air brakes were applied in

emergency just before the accident occurred and he estimated the speed to have been about 50 miles per hour. Immediately after the accident he rendered what assistance he could to the injured and after going through the cars he got upon the ground at the rear of the train and walked northward on the west side of the track to the switch. The sixth car stood over the switch points and he looked under the car with his lighted lantern and saw that the switch lever was raised and in partly-open position the switch stand being on the opposite side of the track, and then he saw marks on the ties made by the engine wheels after splitting the switch. Conductor Morris then was driven by automobile to Thomasville, about 16 miles north of Forrester, where he reported the accident, following which he was driven back to the scene of the accident and at that time he spoke to the injured engineman, who told him that the switch was open. At this time the conductor again looked at the switch and saw that the points were cocked and the switch lock missing; he did not see any outsiders in the vicinity, and said the weather was clear, with no fog.

Baggagemaster Crib made statements similar to those of Conductor Morris except that he said the air was somewhat smoky. Flagman McIntosh was in the fifth car at the time of the accident and immediately afterwards went back to flag; he also stated that the weather was clear.

Section Foreman Handley stated that he is required to make a thorough inspection of all switches and their appurtenances at least once every week and that he last inspected and greased the switch involved 2 days prior to the accident, at which time the lock was intact. He had been on this particular section for 3 years and had not experienced any previous trouble with malicious tampering.

Roadmaster Jordan arrived at the scene of the accident about 4 hours after its occurrence and in company with Roadmaster Guy he made an inspection of the track and switch. The switch lever was up off the hasp and the switch was about half open; the switch points, throw rod and tie rods were in good condition, except that the last or third tie rod from the points was sprung slightly downward due to the wheels straddling the points. South of the switch there was no indication of dragging equipment. Roadmaster Jordan had been in the service of this railroad for 36 years; he said that he did not know why the use of switch lamps had been discontinued on this particular district; however, it was his experience that they had never been very successful and were hard to keep lighted, often being extinguished when trainmen operated the switches and also being snuffed out by passing trains. He also said that the indication of a switch lamp could be seen only about the same distance as a switch target; he estimated that at night a target could be seen under ordinary

weather conditions a distance of 1,000 to 1,500 feet by means of the reflection from a brightly burning headlight, and he did not know whether he would consider switch lamps as an increased factor of safety in the operation of trains. He further stated, however, that main track switches were equipped with switch lamps on another portion of his territory, these being 8-day lamps which did not require much attention, being inspected once a week and a regular lampman being employed, and he said that almost every time he went over that territory he found a few of those switch lamps extinguished. He did not know of any reason for maintaining switch lamps on that district unless it was because of heavier traffic.

Enginemen Crutchfield, Wells and Dean were deadheading on the train when the accident occurred and their statements of what transpired were similar to those of other witnesses except that Engineman Dean said the switch was not cocked, but was open, with the switch lever down in the hasp. Their statements in regard to the use of main track switch lamps were to the effect that the only such lamps maintained on the district upon which they operated were the switch lamps within yard limits; Engineman Wells said switch targets could be seen at night a distance of 10 or 15 car lengths, while Engineman Crutchfield fixed the distance as being between 200 and 300 feet. In their opinion main track switch lamps would afford a materially increased factor of safety and they said that under ordinary weather conditions at night the red indication of a lighted switch lamp could be seen in ample time for a train to stop before reaching the switch. Engineman Wells said there was a little fog at the time of the accident but he thought a switch lamp could have been seen a distance of $\frac{1}{4}$ mile under the prevailing conditions. He had never operated in territory where they were in general use.

Master Mechanic Witherspoon made a thorough inspection of engine 1701, but found no defects that would have caused or contributed to the accident. In his opinion the accident was caused by some unknown party removing the lock from the switch and opening the switch points far enough for the engine truck wheels to straddle the points, thus precipitating the derailment.

Trainmaster Pace stated that according to the records the switch was last used by the crew of a south-bound fourth-class train on November 9. The last train to pass over the switch on the main track was a south-bound freight extra which passed that point about 10:40 p.m., December 2, traveling at a speed of about 30 or 35 miles per hour; this was about $1\frac{1}{2}$ hours prior to the accident and at that time the members of the crew noticed nothing unusual, nor did they see any outsiders in the vicinity.

General Superintendent Walker said switch lamps were hard

to maintain and that their use in this territory had been abandoned because they were not considered efficient; they were constantly becoming extinguished and were ineffective. In this particular case he did not think a switch lamp would have prevented the accident because it was his impression from the statements of the witnesses that the weather was foggy and smoky and it also was his opinion that the type of target used at Forrester indicated the position of the switch as clearly as it would have been indicated by a lamp. Mr. Walker further stated that while switch lamps were maintained at some points in his territory because of the density of traffic and also because lamps always had been maintained at those points, it was his opinion that those lamps eventually would be abandoned.

Inspection made by the Commission's inspectors failed to disclose any indication of dragging equipment south of the point of accident. The wheels of the engine were found to be in good condition and the brake rigging was intact. It was evident that the wheels straddled the cocked or partly-opened switch points and that the lead wheels of the truck were the first to be derailed. There was a well-defined mark on the stock rail at a point 13 feet 2 inches north of the switch points where the right engine-truck wheel dropped inside, and a corresponding mark on the gauge side of the opposite or west main track rail at a point 18 feet 3 inches north of the switch points, where the left engine-truck wheel dropped inside of that particular rail; the engine then ran on the ties to a point 6 feet north of the frog of the switch, following which the track was destroyed for a distance of 200 feet.

Conclusions

This accident was caused by a cocked or partly-opened switch, apparently due to malicious tampering.

The engineman stated that the switch was open, and examination of the switch and its appurtenances after the accident indicated that it had been tampered with and that it was opened far enough to permit the wheels to straddle the switch points, thus precipitating the derailment; it also appeared that the switch lock was missing and the lever raised from the hasp. No previous trouble due to tampering had been experienced in this locality, nor was there any defective condition about the track or equipment which would have caused the accident. The switch was last used on November 9, 1934; it was last inspected and greased 2 days prior to the accident, at which time the switch lock was intact, and the last train to pass over the switch on the main track was a south-bound freight extra, a trailing-point movement,

which passed that point about 1½ hours before the accident occurred, at which time members of its crew noticed nothing unusual, nor did they see any outsiders in the vicinity.

This is the third comparatively recent accident on this railroad involving open switches wherein the switch stand was not equipped with a switch lamp and also where the switch was in territory not protected by any form of block signals. The two previous accidents also occurred at night, the first within yard limits at Haines City, Fla., on September 28, 1931, and the second at Bennettsville, S. C., on December 2, 1933. In the Haines City case the switch apparently had been left open by some one in possession of a switch key; the track approaching the switch was straight, although there was a light mist or fog prevailing at the time. In our report upon that accident the following statement was made:

"There is a long tangent approaching the switch, and it is believed that the engineman would have seen the red indication of a lighted switch lamp, had the switch stand been equipped with one, in time to have averted the accident. This was a main-track switch, although located within yard limits, and the practice of not equipping main-track switches with lamps, especially in territory where there is no automatic block protection is not consistent with safety in train operation".

In the Bennettsville case the switch was opened by a young negro who had come into possession of a switch key and apparently did not realize what he had done when he left the switch open; here also the track was straight for a considerable distance, and while the air was more or less smoky from forest fires in the vicinity it was stated in our report that undoubtedly the engineman would have seen the red indication of a lighted switch lamp in time to avert the accident. In the present case Engineman Van Meter apparently did not see the red switch target until his train was very close to it; he was not certain that he applied the brakes, although other members of the crew said there was an emergency application just before the accident occurred. Three other enginemen testified that the red indication of a properly maintained switch lamp can be seen far enough, with straight track and reasonably clear weather to enable a train to be stopped in safety, and that in their opinion the use of main track switch lamps would provide increased safety.

Under the operating rules of this company, if the switch stand had been equipped with a switch lamp the dangerous condition of the switch in the case here under investigation would probably have been discovered in time to avert the accident, and in view

of this accident, as well as of previous accidents which were due to the same cause, responsible officers of this railroad company should promptly give consideration to the need for switch lamps on its main lines. Likewise consideration should be given to the need for the additional protection which would be afforded by the installation of a block system.

Respectfully submitted,

W. J. PATTERSON,

Director.