

INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE
INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON
THE FLORIDA EAST COAST RAILWAY NEAR BUNNELL,
FLA., ON MAY 3, 1930.

June 14, 1930.

To the Commission:

On May 3, 1930, there was a collision between a mixed train and a freight train on the Florida East Coast Railway near Bunnell, Fla., which resulted in the death of one passenger, and the injury of eight passengers, six employees, and three persons carried under contract.

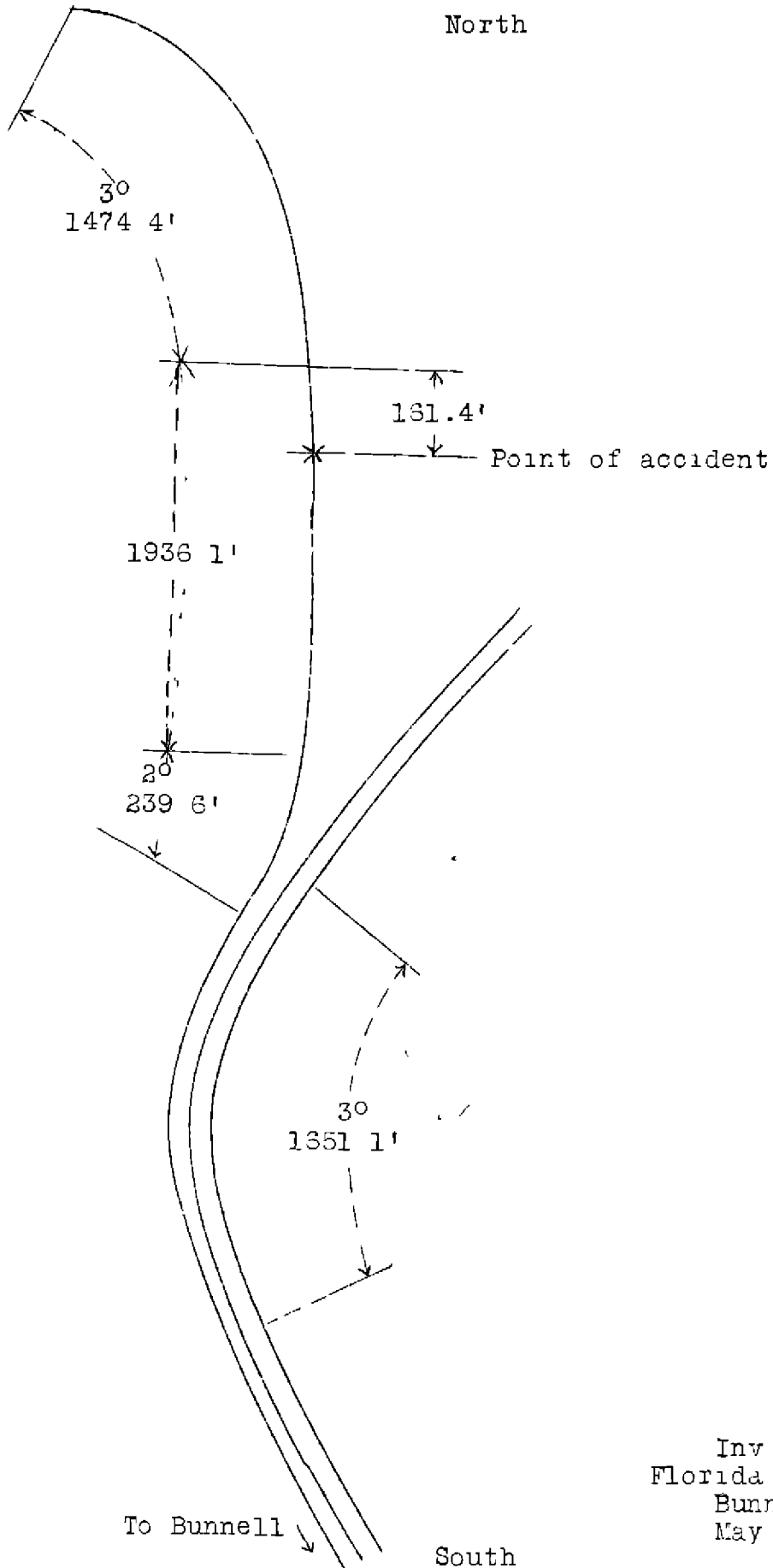
Location and method of operation

This accident occurred on the Second District of the Northern Division, which extends between St. Augustine and Bunnell, Fla., a distance of 49.9 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 a point 1.18 miles north of the station at Bunnell; approaching this point from the north, the track is tangent for more than 1 mile, followed by a 3° curve to the right 1,474.4 feet in length, including spirals, and then tangent track for a distance of 1,936.1 feet, the accident occurring on this latter tangent at a point 161.4 feet from its northern end. Approaching from the station at Bunnell, the track is tangent for a distance of 2,670.4 feet, followed by a reverse curve which consists of a 3° curve to the right 1,651.1 feet in length, including spirals, the north spiral extending about 100 feet into a 2° curve to the left 239.6 feet in length, and then the tangent track on which the accident occurred. The grade is practically level at the point of accident.

Due to trees located on the right or inside of the 3° curve north of the point of accident, the view is restricted to 1,800 feet for a southbound train until the train has reached a point about half way around the curve, where a view can then be had for about three-fourths of a mile.

The weather was clear at the time of the accident, which occurred about 6.13 a.m.

North



Inv No 1635
Florida East Coast Ry
Bunnell, Fla
May 3, 1930.

Description

Southbound freight train extra 807 consisted of 69 empty refrigerator cars and a caboose, hauled by engine 807, and was in charge of Conductor Buie and Engineman Woods. This train departed from South Bowden, the last open office, 78.4 miles north of Bunnell, at 12.50 a.m., stopped for water at Neoga, the last station at which it could have cleared for train No. 46, located 4.4 miles north of Bunnell, and was approaching Bunnell when it collided with train No. 46 while traveling at a speed estimated to have been between 20 and 35 miles per hour.

Northbound mixed train No. 46 is operated from Bunnell to San Mateo Junction, a distance of 23.8 miles, as a back-up movement, there being no facilities at Bunnell for turning engines or trains, or for the engine to run around a train. On the day of the accident there were no freight cars in the train which consisted of two coaches, one baggage car, and one mail car, in the order named, pushed by engine 96, headed south, and was in charge of Conductor Roberts and Engineman Owen. All the cars were of steel-underframe construction, with wooden, steel-plated superstructures. This train departed from Bunnell, its initial terminal, at 6.10 a.m., on time, and was traveling at an estimated speed of 25 or 30 miles per hour, when it collided with extra 807.

Engine 807 telescoped the first car of train No. 46 practically its entire length; this coach was demolished and the engine was quite badly damaged. The tender and first four cars of extra 807 were not damaged, but the next nine cars were more or less damaged, five of them being destroyed. The second and third cars in train No. 46 received no damage, while the fourth car and the engine were slightly damaged. The employees injured were the conductor, engineman, fireman, flagman, and baggage-man, of train No. 46, and the head brakeman of extra 807.

Summary of evidence

Engineman Woods, of extra 807, stated that he compared his watch with the standard clock at South Bowden and there was a difference of 5 or 6 seconds, and he also compared his watch with Conductor Buie's and there was a variation of 12 or 15 seconds. The fireman also looked at his watch but the engineman did not notice what time was shown by the fireman's watch. Engineman Woods said that upon leaving Neoga, he looked at his watch, at which time it was between 5.49 and 5.50 a.m., and he figured he had sufficient time to go to Bunnell for train No. 46, although he knew he would lack a minute or two of being into clear within the 10 minutes required by the rules. Nothing was said by any one at any time as to where train No. 46 was to be met. Upon rounding the curve approaching

Bunnell, moving at a speed of about 30 or 35 miles per hour, he saw the coaches of train No. 46, about 35 car-lengths distant, and at once applied the air brakes in emergency and shut off steam, and he thought the speed had been reduced to 25 or 30 miles per hour at the time of the collision. Engineman Woods said that several minutes after the occurrence of the accident, he looked at his watch and found that it had stopped, but he did not notice the time; he shook it and it started again. Some time later he met Superintendent Pooser and compared time and his watch was then four or five minutes slow. Engineman Woods said he had wound his watch twice during the previous evening, and that it had not stopped on account of being run down. It was last cleaned in February, 1929, and he had not experienced any trouble with it, nor did he remember of having broken the crystal at any time. Upon his arrival at New Smyrna after the accident, Engineman Woods took his watch to the watch inspector to ascertain the cause of its stopping and upon examination the watchmaker found some small pieces of glass and a small shaving of nickel in the works, which the watchmaker informed him might have caused it to stop. Engineman Woods further stated that the air brakes had been tested at Bowden Yard and they were reported to him as operating properly, and when he made the stop at Neoga water tank, using the automatic brakes, they functioned properly.

Fireman Woods, of extra 807, stated that he compared time with the engineman and conductor before leaving Bowden Yard; he did not remember the variation, but thought there was not as much as a minute between any of the watches compared. Near Neoga, the engineman looked at his time-table and watch, and said he had time to go to Bunnell for train No. 46, but the fireman did not look at his own watch or time-table, taking the engineman's word for it. Fireman Woods said that upon approaching the point of accident, the train was traveling at a speed of about 30 or 35 miles per hour, and the first intimation he had of danger was when the engineman applied the air brakes; he did not know whether or not it was an emergency application, nor did he know whether the engineman shut off steam or reversed the engine. The engineman was excited and was about to get off the engine when the fireman looked out and saw the approaching train, which was very close at that time.

Conductor Buie, of extra 807, stated that he compared time with the standard clock at Bowden Yard and also with Engineman Woods and other members of the crew before leaving that terminal, and that the greatest variation in any of the watches did not exceed 20 seconds. He did not consult his time-table during the trip except

upon leaving Palatka, 25.2 miles north of Bunnell, at which time he checked for two overdue trains, but train No. 46 never entered his mind and he did not check against that train. He was riding in the caboose approaching the point of accident and the train was traveling at a speed of about 30 miles per hour when the brakes went into emergency. Conductor Buie thought the train had parted, and it did not occur to him that they had collided with train No. 46 until he saw the wreckage ahead. He estimated the train traveled a distance of about 15 car-lengths after the brakes were applied. Conductor Buie further stated that he was not engaged in any other duties and could ascribe no cause for his failure in observing the schedule of train No. 46. He also stated that he looked at his watch upon leaving the water tank at Neoga and it was then 6 a.m., as against 5.49 or 5.50 a.m. according to the engineman's watch.

Brakeman Disbennett, of extra 807, who was injured in the accident and confined to the hospital at St. Augustine, stated that he looked at his time-table upon leaving Hastings, 32.9 miles north of Bunnell, and saw that train No. 46 was due out of Bunnell at 6.10 a.m., and upon leaving Neoga he glanced at his watch and figured they had 18 minutes to go to Bunnell for train No. 46, but he could not recall just what time his watch showed; according to his estimate of 18 minutes, however, it must have been 5.52 a.m. at that time. He did not have any conversation with the engineman regarding the meeting point with that train, nor did he see the engineman consult either his watch or time-table when leaving Neoga, and he himself did not have train No. 46 in mind again until the accident occurred. Brakeman Disbennett said that approaching the point of accident he was riding on the sand box of the tender, directly behind the engineman, and as the engine took the elevation of the curve the jar was such that he got off the sand box and about that time the engineman made an emergency application of the air brakes and said they had better get off. Brakeman Disbennett then looked ahead and saw train No. 46 about 20 or 25 car-lengths distant, and by the time he jumped from the engine the other train was about 4 car-lengths distant. He thought the speed had been reduced from 30 or 35 miles to 18 or 20 miles per hour at the time of the collision.

Flagman Turman, of extra 807, stated that he compared time with the standard clock at Bowden Yard and with other members of his crew, except the fireman, and that the maximum variation of watches was 30 seconds. He was riding in the cupola with the conductor, and said it was about 5.57 a.m. when they stopped for water at Neoga and that they were at that point about five or six minutes, but it never occurred to him at any time to check train No. 46, that being a duty he left entirely to the

conductor. Flagman Turman also estimated the speed of the train at the time the emergency application was made to have been 30 or 35 miles per hour, and said that the train traveled about 15 car-lengths after the application was made.

Middle Brakeman Brannon, of extra 807, stated that he did not remember any variations in the watches when a comparison was made before leaving Bowden Yard except that his watch was four or five seconds slow with the conductor's. Due to Brakeman Brannon's 16-hour period having expired at 5.30 a.m., he was relieved from duty just prior to that time and was asleep in the caboose at the time of the accident.

Engineman Owen, of train No. 46, stated that a terminal air-brake test was not made at Bunnell, but upon departing from that point he made a running test of the brakes and received a signal from the flagman on the first car, which he answered, and he thought his train had attained a speed of 35 or 38 miles per hour when he saw extra 807 approaching, at which time it was about 600 or 700 feet from the leading car in his train. He immediately made an emergency application of the air brakes and reversed the engine, and thought the speed had been reduced to about 30 miles per hour at the time of the collision. Engineman Owen further stated that the brakes might have been applied from the first car in the train at the same time he made the application by means of the brake valve, but that he obtained a full brake-pipe exhaust, which indicated to him that the application was accomplished through the brake valve.

The statements of Fireman Phillips and Conductor Roberts, of train No. 46, brought out nothing additional of importance, except that Conductor Roberts said upon leaving Bunnell the flagman was on the platform of the first car in the train and he heard him sound the whistle signals for street crossings north of Bunnell. Conductor Roberts also stated that the flagman is instructed to be in position on the platform of the leading car in order to operate the back-up hose, and has no other duties to perform while the train is moving in this territory, and that he himself rides with the flagman whenever his other duties will permit. He also said that a terminal air-brake test was not made at Bunnell.

Flagman White, of train No. 46, stated that upon leaving Bunnell he took his position in the front vestibule of the first car, in order to operate the back-up hose. He sounded whistle signals for the street crossings north of the station, and gave the engineman a hand signal after the running test of the air brakes was made.

Upon leaving the reverse curve south of the point of accident, and reaching a point where he could see the full length of the 1936-foot tangent, he stepped inside of the coach to dispose of a pad of wheel-report blanks, and as he turned to open the door to return to the vestibule he saw extra 807 approaching, not more than 15 car-lengths distant. He reached up and opened the conductor's emergency valve which was located directly above his head, and then ran back toward the other end of the car, the collision occurring almost immediately; he said that the engineman might have applied the brakes before he opened the valve. Flagman White estimated the speed of his train to have been about 30 miles per hour, and he did not think he had his eyes off the track more than 15 seconds while he went inside the car.

The statements of Baggage-man Guest, who was riding in the baggage car of train No. 46, and Mr. Clements, a fruit fly inspector, who was riding in the first car, added nothing of importance.

Mr. Guzzell, watchmaker of New Smyrna, stated that he made an examination of the watch of Engineman Woods after the accident and found some small particles of glass and a small piece of nickel machining in the movement; in addition, there was some rust on the over-coil of the hair spring in two places, and also some rust on the second coil; he said that the rust would not cause the watch to stop, but that the broken glass or piece of nickel could cause it to stop if it became lodged in certain places in the mechanism, in which event the watch would start again if the pieces were dislodged by a violent jerk. It was his opinion that the broken glass had gotten into the watch from a broken crystal, but that the piece of nickel was from factory machinings and had been in there since the watch left the factory.

Superintendent Pooser stated that sometime after the accident he arrived at Bunnell and questioned Conductor Buie and Engineman Woods as to the cause of the accident, Conductor Buie stating that he overlooked train No. 46 entirely and Engineman Woods stating that his watch had stopped. Superintendent Pooser said he asked to see the engineman's watch and it was then running; he compared it with his own watch and it was 4 minutes and 40 seconds slow, and on comparing his own watch with a standard clock he found it to be 10 seconds fast.

The inspection cards covering Engineman Woods' watch showed nine comparisons covering a period from December 18, 1929, to April 29, 1930, six of these showing the watch on time, one recording it as being 10 seconds slow and on two occasions it was 20 seconds slow. After this,

watch had been inspected by the watchmaker, a check was made covering a period of 59 hours, and during that time the watch lost 2 minutes and 50 seconds.

Conclusions

This accident was caused by the operation of extra 807 on short time against an opposing superior train.

The rules provide that extra trains must clear the time of opposing regular trains not less than 10 minutes. Engineman Woods, of extra 807, stated that when he looked at his watch at Neoga, the last point at which he could have cleared for train No. 46, it was between 5.49 and 5.50 a.m., and he admitted knowing then that he could not clear at Bunnell within the 10 minutes required by the rule. After the occurrence of the accident it was found that the engineman's watch had stopped, and examination by a watchmaker disclosed small pieces of glass and nickel machinings which could have caused it to stop. It is possible, therefore, that Engineman Woods' watch had stopped or was keeping inaccurate time upon leaving Neoga, as Conductor Buie said his watch showed 6 a.m. upon leaving that point and Flagman Turman said he looked at his own watch when they arrived at Neoga and it was then 5.57 a.m. and he thought they stopped there about five or six minutes; the statements of these latter two employees, of course, conflict squarely with the statement of Brakeman Disbennett that they had 18 minutes when leaving Neoga. But even if the engineman's watch had stopped, still it showed a time which did not permit him to go to Bunnell against train No. 46, while Fireman Woods, of extra 807, made no attempt to look at his own time-table or watch, but took the engineman's word for it. Brakemen Disbennett knew the time was short, as he said they had 18 minutes in which to go to Bunnell, while Conductor Buie and Flagman Turman, of extra 807, both admitted they overlooked train No. 46 entirely, offering no excuse for their failure.

Had any one of the members of this crew properly performed his duty, checked the time-table, and discussed the point where train No. 46 was to be met, there is no doubt but that this accident would have been prevented; instead of doing that, however, the safe operation of the train was left to the engineman, and it appears that he figured upon running on short time.

Train No. 46 had been operating for over a year in this territory as a back-up movement. If it were deemed impractical to provide a wye, which would not be difficult at Bunnell, a new crossover could be put in which would permit the engine to be run around the train and placed

on the forward end. Had the engine been hauling the train in this case, and the engineman observed the opposing train at the same distance, he would have had considerably more space in which to reduce the speed, or stop his train.

All 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.