INTERSTATE COMMERCE COMMISSION

WASHINGTON

REPORT NO. 3739

LOUISVILLE AND NASHVILLE RAILROAD COMPANY

IN RE ACCIDENT

AT GARDEN CITY, ALA., ON

FEBRUARY 12, 1957

SUMMARY

Date:	February 12, 1957
Railroad:	Louisville and Nashville
Location:	Garden City, Ala.
Kind of accident:	Derailment
Train involved:	Passenger
Train number:	99
Locomotive number:	Diesel-electric units 790 and 761
Consist:	10 cars
Speed:	Undetermined
Operation:	Timetable, train orders, and automatic block-signal system
Tracks:	Double; tangent; 0.39 percent descending grade southward
Weather:	Clear
Time:	7:04 p. m.
Casualties:	24 injured
Cause:	Obstruction on track

INTERSTATE COMMERCE COMMISSION

REPORT NO. 3739

IN THE MATTER OF MAKING ACCIDENT INVESTIGATION REPORTS UNDER THE ACCIDENT REPORTS ACT OF MAY 6, 1910.

LOUISVILLE AND NASHVILLE RAILROAD COMPANY

May 20, 1957

Accident at Garden City, Ala., on February 12, 1957, caused by an obstruction on the track.

REPORT OF THE COMMISSION[1]

TUGGLE, Commissioner:

On February 12, 1957, there was a derailment of a passenger train on the Louisville and Nashville Railroad at Garden City, Ala., which resulted in the injury of 17 passengers, 5 dining-car employees, 1 Pullman Company employee, and 1 train porter.

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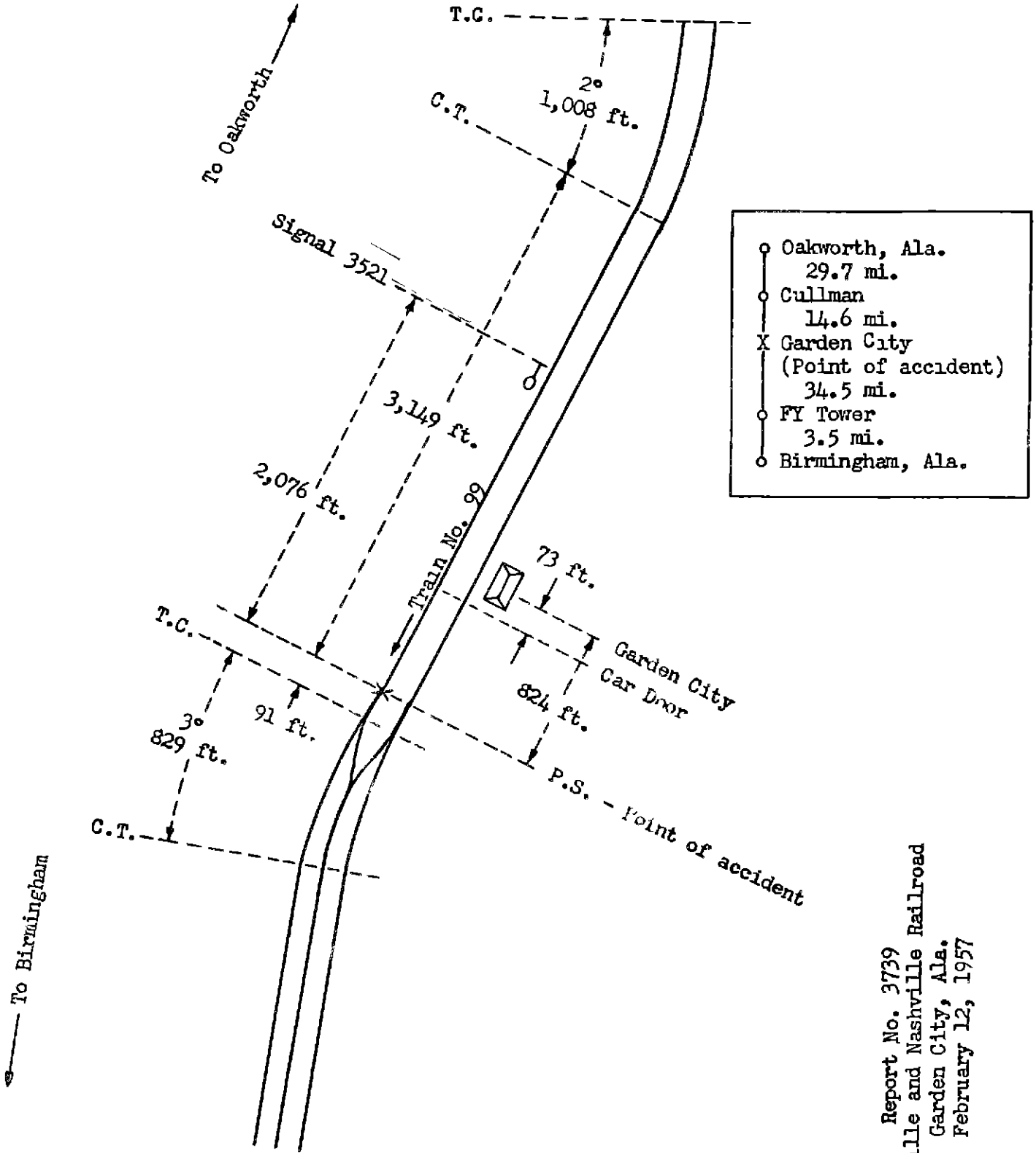
[1] Under authority of section 17 (2) of the Interstate Commerce Act the above-entitled proceeding was referred by the Commission to Commissioner Tuggle for consideration and disposition.



Report No. 3739
Louisville and Nashville Railroad
Garden City, Ala.
February 12, 1957

Location of Accident and Method of Operation

This accident occurred on that part of the Birmingham Division extending between Oakworth, Ala., and FY Tower, near Birmingham, Ala., 78.87 miles, a double-track line, over which trains moving with the current of traffic are operated by timetable, train orders, and an automatic block-signal system. At Garden City, 44.33 miles south of Oakworth, a siding is located between the two main tracks. The north end of the siding connects with the southward main track at a switch located 824 feet south of the station. The accident occurred on the southward main track at the north siding-switch. From the north there are, in succession, a 2° curve to the right 1,008 feet in length, a tangent 3,149 feet to the point of accident and 91 feet southward, and a 3° curve to the left 829 feet. The grade is 0.39 percent descending southward at the point of accident.

In the vicinity of the point of accident the track structure consists of 100-pound rail, 39 feet in length, laid new in 1931 on an average of 23 treated ties to the rail length. It is fully tieplated with single-shoulder canted tie plates, single-spiked, and is provided with 4-hole 24-inch joint bars and an average of 10 rail anchors per rail. It is ballasted with slag to a depth of 18 inches below the bottoms of the ties.

Automatic signal 3521, governing south-bound movements on the southward main track, is located 2,076 feet north of the point of accident.

The maximum authorized speed for passenger trains is 70 miles per hour, but it is restricted to 55 miles per hour on the curves in the vicinity of the point of accident.

Description of Accident

No. 99, a south-bound first-class passenger train, consisted of Diesel-electric units 790 and 761, coupled in multiple-unit control, one refrigerator-express car, one mail car, one express car, one baggage car, three coaches, one lounge car, one dining car, and one sleeping car, in the order named. The first four cars and the eighth and ninth cars were of conventional all-steel construction, and the other cars were of lightweight construction. The fifth to the seventh cars, inclusive, and the eighth and tenth cars were equipped with tightlock couplers. This train departed from Cullman, the last open office, 14.59 miles north of Garden City, at 6:49 p. m., 7 minutes late, passed signal 3521, which indicated Proceed, and while moving on the southward main track at a speed of 50 miles per hour it struck a

corrugated-steel freight-car door which had fallen across the east rail of the southward main track at a point 73 feet south of the station at Garden City. The door became wedged between the first and second wheels on the left side of the first Diesel-electric unit and struck and demolished the switch stand at the north switch of the siding. The rear truck of the seventh car and the eighth, ninth, and tenth cars were derailed at the switch.

Separations occurred between the second and third cars and between the eighth and ninth cars. The front end of the locomotive and the front ends of the third and the ninth cars stopped at points, respectively, 3,852 feet, 1,070 feet, and 450 feet south of the switch. The derailed equipment stopped between the southward main track and the siding. The eighth and ninth cars leaned to the west at an angle of approximately 45 degrees. The seventh car was somewhat damaged, and the eighth, ninth, and tenth cars were considerably damaged.

The weather was clear at the time of the accident, which occurred at 7:04 p. m.

Discussion

As No. 99 was approaching the point where the accident occurred, the enginemen were in their positions in the control compartment at the front of the locomotive. The members of the train crew were in various locations throughout the cars of the train. The headlight was lighted brightly. The engineer made a service application of the brakes before entering the curve immediately north of the point of accident, and the speed of the train was reduced to 50 miles per hour. The engineer and the fireman saw the car door on the track as the locomotive was closely approaching it. The engineer immediately made an emergency application of the brakes. He said that the front end of the locomotive was about 50 feet from the door when he made the application.

Examination of the track structure after the accident occurred disclosed that the door which was struck by No. 99 had become detached from the west side of a car in a northbound freight train. A corner of the door struck the ballast at a point approximately 120 feet south of the station. The door then rolled and skidded throughout a distance of approximately 50 feet and stopped across the east rail of the southward main track. The left front wheel of the first Diesel-electric unit of No. 99 passed over the door, and the door then became wedged between the first and second wheels of the unit. The door was found in this position after the locomotive stopped. After the switch stand at the north switch of the siding was demolished by the door, the switch

points were free to move, and the rear truck of the seventh car and the eighth to the tenth cars, inclusive, were derailed at the switch.

The investigation disclosed that the door which was struck by No. 99 had fallen from the west side of G.T.W. 583237, an empty automobile car. This car was placed in the train of Extra 805 North, a north-bound freight train, at Boyles, 35.03 miles south of Garden City, and was the ninth car of the train. This train, consisting of a Diesel-electric locomotive, 117 cars, and a caboose, departed from Boyles at 4:50 p. m. and passed Garden City about 5:45 p. m. The members of the crew said that there was no severe slack action en route. They said that they inspected the train as it moved on various curves between Boyles and Garden City and that they saw no indications that the door was not properly secured.

G.T.W. 583237 is a double-door automobile car 40 feet 6 inches in length. It was built in April 1929. It is constructed with a steel underframe and a steel body frame with wooden sides. The door which fell to the track structure was the auxiliary door on the west side of the car. This door was of corrugated-steel construction. It measured 5 feet 5 inches by 9 feet 10-1/2 inches and weighed 437 pounds with fittings. The assembly for guiding the door at the top consisted of a 3-1/2-inch by 1-7/8-inch by 1/4-inch angle iron securely riveted to a "Z" section steel side plate. It was in good condition. The top of the door extended about 1-1/8 inches under the downward leg of the top door guide. The door track consisted of a 1/2-inch channel section measuring 1-3/4 inches by 3 inches by 1 inch. It was 23 feet 6 inches in length and was attached to the car with the web upward and the 1-inch flange to the outside. It was supported by 10 malleable-iron brackets which were riveted to the 1-3/4-inch flange and to the side sill. The track had also been supported by one rivet at each door post and by welding to the north door post, but the rivet at the north door post was missing and the weld had broken. Defects in the car body frame on the west side of the car which contributed to the cause of the accident were a broken door post and a broken "Z" section steel diagonal side brace located near the door post. It was found that by prying lightly the track could be moved downward approximately 1 inch. The door was supported on the web of the door track by two roller assemblies which were secured to the bottom of the door by rivets. The rollers were held on the track by hook-shaped portions of the roller

housings which extended around the bottom of the 1-inch flange of the channel. The track was worn to a depth of 1/8 inch at the roller locations when the door was closed. The back stops were in place and securely attached. There was no indication that the door had been forced beyond either stop. The seal pin was found at the point at which the door fell from the car. The hasp on the main door was twisted slightly outward and downward, and the staple on the auxiliary door was distorted, indicating that the door was in closed position when it became detached. Examination of the roller assemblies after the accident occurred disclosed that they were worn to the extent that the distance between the bottoms of the rollers and the top edges of the hook-shaped portions of the housings was 7/8 inch. The distance between the worn points in the top of the door track and the bottom of the 1-inch flange also was 7/8 inch. Apparently the door became disengaged and fell to the track while the car was in motion as a result of the condition of the car body frame and the worn condition of the door roller assemblies. The doors on the opposite side of the car were equipped with top door guide safety hangers which would prevent the doors from becoming disengaged from the top door guide and would prevent the doors from falling. The door which fell from the car was not so equipped.

G.T.W. 583237 was last inspected at Boyles, and no exceptions were taken to the condition of the door assemblies.

Cause

This accident was caused by an obstruction on the track.

Dated at Washington, D. C., this twentieth day of May, 1957.

By the Commission, Commissioner Tuggle.

(SEAL)

HAROLD D. McCOY,

Secretary.