INTERSTATE COMMERCE COMMISSION

WASHINGTON

INVESTIGATION NO. 3019

SAVANNAH & ATLANTA RAILWAY COMPANY

REPORT IN RE ACCIDENT

NEAR CARN, GA., ON

AUGUST 25, 1946

SUMMARY

Railroad:	Savannah & Atlanta
Date:	August 25, 1946
Location:	Carn, Ga.
Kind of accident:	Derailment
Train involved:	Freight
Train number:	211
Engine number:	447
Consist:	Auxiliary water car, 34 cars, caboose
Estimated speed:	35 m. p. h.
Operation:	Timetable and train orders
Track:	Single; tangent; 0.10 percent ascending grade westward
Weather:	Cloudy
Time:	2:40 a. m.
Casualties:	1 killed; 2 injured
Cause:	Obstruction on track

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 3019

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

SAVANNAH & ATLANTA RAILWAY COMPANY

October 21, 1946

Accident near Carn, Ga., on August 25, 1946, caused by an obstruction on the track.

REPORT OF THE COMMISSION[1]

PATTERSON, Commissioner:

On August 25, 1946, there was a derailment of a freight train on the Savannah & Atlanta Railway near Carn, Ga., which resulted in the death of one employee, and the injury of two employees.

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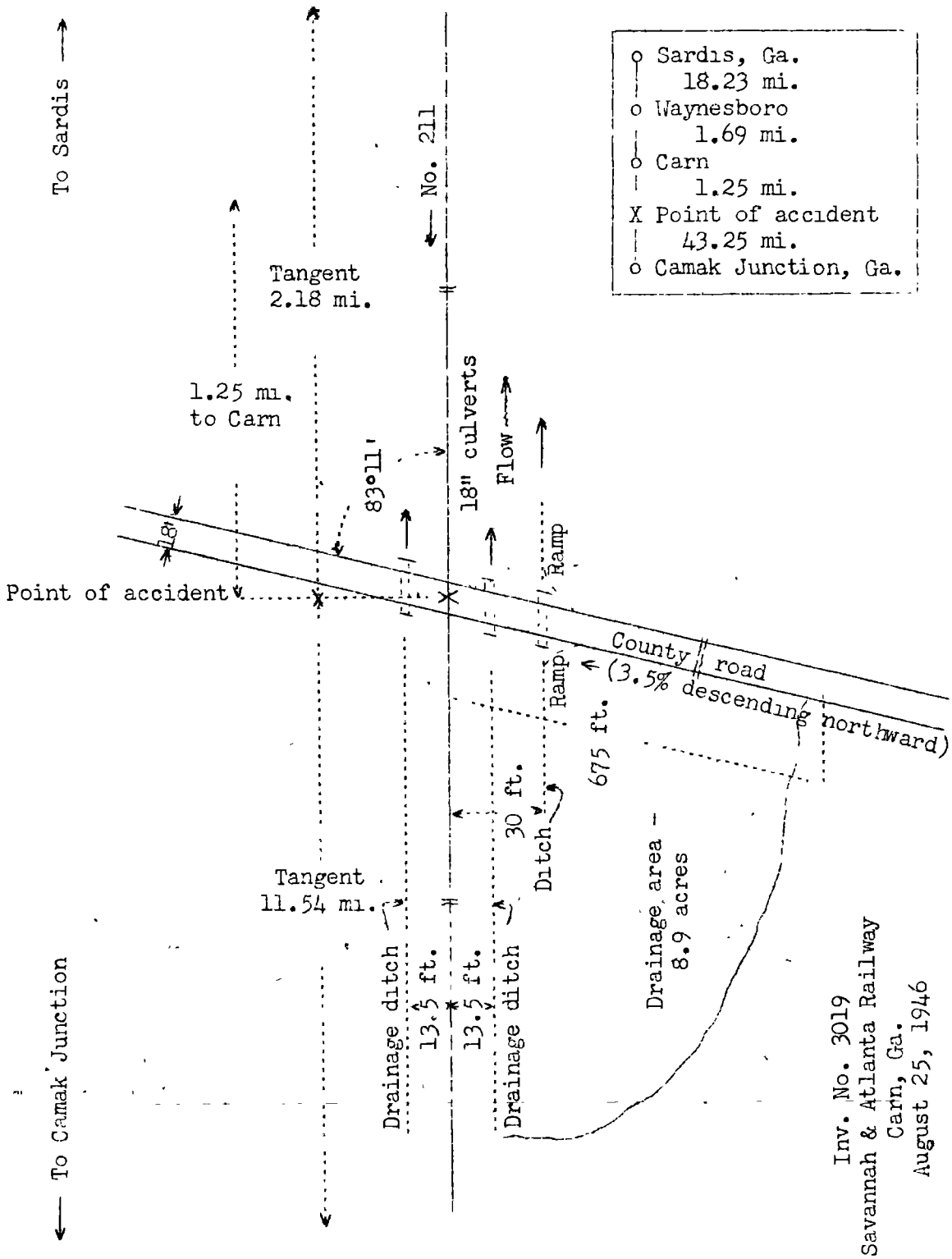
[1]Under authority of section 17 (2) of the Interstate Commerce Act the above-entitled proceeding was referred by the Commission to Commissioner Patterson for consideration and disposition.


To Sardis
No. 211
Tangent
2.18 mi.
1.25 mi.
to Carn
83°11'
18" culverts
Flow
18'
Point of accident
Ramp
Ramp
County road
(3.5% descending northward)
675 ft.
30 ft.
Ditch
Drainage area -
8.9 acres
Tangent
11.54 mi.
Drainage ditch
13.5 ft.
13.5 ft.
Drainage ditch
To Camak Junction
Sardis, Ga.
18.23 mi.
Waynesboro
1.69 mi.
Carn
1.25 mi.
Point of accident
43.25 mi.
Camak Junction, Ga.
Inv. No. 3019
Savannah & Atlanta Railway
Carn, Ga.
August 25, 1946

Location of Accident and Method of Operation

This accident occurred on that part of the railroad extending between Sardis and Camak Junction, Ga., 64.42 miles, a single-track line, over which trains are operated by time-table and train orders. There is no block system in use. The accident occurred on the main track at a county-road grade crossing, 21.17 miles west of Sardis and 1.25 miles west of Carn. The main track is tangent throughout a distance of 2.18 miles immediately east of the point of accident and 11.54 miles westward. The grade for westbound trains is level throughout a distance of 1.80 miles, then it is 0.10 percent ascending 418 feet to the point of accident and some distance westward.

The track structure consists of 90-pound rail, 33 feet in length, laid on an average of 20 ties to the rail length. It is fully tieplated, single-spiked, provided with 4-hole angle bars and an average of 6 rail anchors per rail length, and is ballasted with rock screenings to a depth of 6 inches. Throughout a distance of about 300 feet immediately east and about 1,300 feet immediately west of the county-road grade crossing the track is laid in a cut. The maximum height of the walls of the cut is 18 feet, and each wall is about 30 feet horizontally distant from the center-line of the track. Throughout the length of the cut drainage ditches about 3 feet deep parallel the track on each side. The center-line of each ditch is about 13.5 feet horizontally distant from the center-line of the track. An additional ditch about 3 feet wide extends about 150 feet immediately east and 150 feet immediately west of the grade crossing and parallels the track on the south. The center-line of this ditch is about 30 feet south of the center-line of the track. The county road intersects the railroad at an angle of 83°11'. The road and the crossing are about 18 feet wide. The surface of the road consists of a mixture of clay and sand, and the crossing consists of a mixture of clay, sand and rock screenings. No drainage ditch is provided on either side of the road. The road is tangent throughout a distance of 675 feet south of the crossing and a considerable distance northward. The grade is about 3.5 percent descending northward. At points 13.5 feet north, 13.5 feet south and 30 feet south of the center-line of the track culverts 1.5 feet in diameter and 25 feet long extend under the road. An earther ramp is provided on each side of the road, and at an angle of about 20 degrees to it, at the second culvert south of the crossing to direct drainage water to the ditch on each side of this culvert. Normally, water from an area of 8.9 acres immediately south of the track and west of the road flows eastward in the ditch and through the culvert immediately south of the track.

Operating rules read in part as follows:

942. During storms by day or by night, Section Foremen must go over their sections with their men, examine track and bridges where liable to be rendered unsafe by action of water, and take every precaution to prevent accident.

The maximum authorized speed for the train involved was 40 miles per hour.

Description of Accident

No. 211, a west-bound first-class freight train, consisting of engine 447, a 4-8-2 type, one auxiliary water-car, 34 cars and a caboose, departed from Sardis, the last open office, at 2 a. m., 15 minutes late, and while it was moving at an estimated speed of 35 miles per hour the engine and the first 19 cars were derailed.

The engine was derailed to the left, continued forward 430 feet, and stopped practically in line with the track and against the south wall of the cut. The tender, remaining coupled to the engine, stopped on its left side, across the track and at an angle of 50 degrees to the engine. The derailed cars stopped in various positions across the track and in line with it. The cab of the engine was demolished, and the engine was otherwise badly damaged. Of the derailed cars, four were demolished and the remainder were considerably damaged.

The weather was cloudy at the time of the accident, which occurred about 2:40 a. m.

The front brakeman was killed, and the engineer and the fireman were injured.

Discussion

No. 211 was moving on tangent track at a speed of about 35 miles per hour, in territory where the maximum authorized speed was 40 miles per hour, when the engine and the first 19 cars were derailed at a highway grade crossing. There was no defective condition of the engine prior to the derailment, and there was no indication of dragging equipment.

As No. 211 was approaching the point where the accident occurred the headlight was lighted brightly, and the enginemen and the front brakeman were maintaining a lookout ahead.

The brakes of this train had been tested and had functioned properly en route. The engine had been riding smoothly. The first the employees on the engine knew of anything being wrong was when the engine entered upon the crossing, then they observed an unusual movement of the front end of the engine. The engineer immediately moved the brake valve to emergency position, but the general derailment occurred before the train could be stopped.

The investigation disclosed that a heavy rainfall had occurred in this vicinity about 9 hours prior to the time the accident occurred. Examination after the accident disclosed that water had flowed over the crossing, and sand had been deposited between the rails and on the rails of the crossing to a depth of from 1-1/2 to 3 inches above the level of the tops of the rails. There were flange marks on the ties outside the south rail and inside the north rail starting at a point 14 feet immediately west of the center-line of the crossing. These marks extended progressively outward and westward to the point where the general derailment occurred. The north rail was kinked at intervals of 17.5 feet throughout a distance of about 75 feet immediately west of the crossing, and there were batter marks on the counterbalance of the right No. 1 driving wheel of the engine. The marks on the track structure and on the counterbalance indicate that the engine-truck wheels and the front pair of driving wheels were the first wheels to become derailed. It is evident that there was enough sand on the rails at the crossing to cause these wheels to be raised high enough for the flanges to be free of the rails, and then the engine-truck wheels and the front pair of driving wheels dropped to the ties immediately west of the crossing.

The section foreman who had charge of the track was located at Waynesboro, 2.94 miles east of the point of accident. He said that on the evening preceding the day of the accident he had attended a theater at Waynesboro. When he left the theater about 7 p. m. a light rain was falling, but he did not consider the rainfall to be of sufficient volume to require an inspection of the track. He did not know of anything being wrong until he was notified of the accident. Station employees at Waynesboro said that a heavy rainfall occurred in that vicinity between 6 p. m. and 6:30 p. m., but they did not consider the rainfall to be of sufficient volume to require an inspection of the track. A resident in the vicinity of the crossing said that about 2 or 3 inches of rain fell between 5 p. m. and 5:30 p. m., then light rainfall continued about 30 minutes longer. Members of the crew of a south-bound train, which passed over

the crossing about 4:40 p. m., August 24, said that their train rode smoothly as it passed over the crossing. The surviving members of the crew of No. 211 said that they observed no indication of rainfall throughout the trip prior to the accident. Officers of the railroad said that the drainage facilities in the vicinity of the point of accident had been adequate previously, and that prior to the accident there had been no unsafe condition as a result of rainfall in this vicinity. However, in the present case, these facilities were not sufficient for preventing sand from being deposited on the track at the crossing.

Cause

It is found that this accident was caused by an obstruction on the track.

Dated at Washington, D. C., this twenty-first day of October, 1946.

By the Commission, Commissioner Patterson:

W. P. BARTEL,
Secretary.

(SEAL)