INTERSTATE COMMERCE COMMISSION

WASHINGTON

INVESTIGATION NO. 2813

THE ATLANTIC COAST LINE RAILROAD COMPANY

REPORT IN RE ACCIDENT

AT STOCKTON, GA., ON

AUGUST 4, 1944

SUMMARY

Railroad:	Atlantic Coast Line
Date:	August 4, 1944
Location:	Stockton, Ga.
Kind of accident:	Derailment
Train involved:	Passenger
Train number:	57
Engine numbers:	1514, 1513
Consist:	14 cars
Estimated speed:	65 m. p. h.
Operation:	Timetable and train orders
Track:	Single; tangent; level
Weather:	Clear
Time:	About 11:45 p. m.
Casualties:	47 killed; 41 injured
Cause:	Broken rail, as result of presence of transverse fissures

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 2813

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

THE ATLANTIC COAST LINE RAILROAD COMPANY

August 29, 1944.

Accident at Stockton, Ga., on August 4, 1944, caused by a broken rail, as a result of the presence of transverse fissures.

REPORT OF THE COMMISSION[1]

PATTERSON, Chairman:

On August 4, 1944, there was a derailment of a passenger train on the Atlantic Coast Line Railroad at Stockton, Ga., which resulted in the death of 47 employees not on duty, and the injury of 40 employees not on duty and 1 train-service employee.

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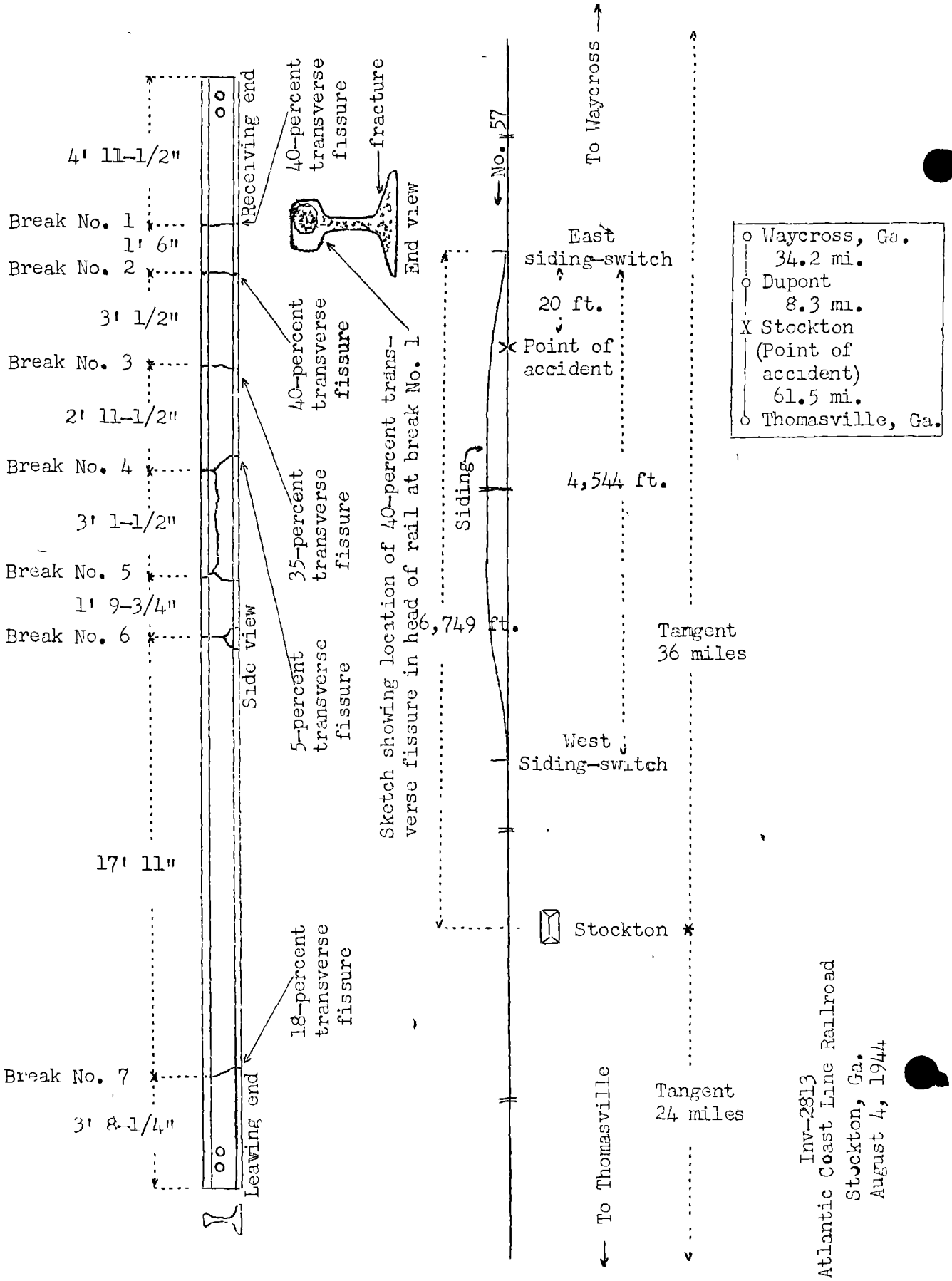
[1]Under authority of section 17 (2) of the Interstate Commerce Act the above-entitled proceeding was referred by the Commission to Chairman Patterson for consideration and disposition.



Inv-2813
Atlantic Coast Line Railroad
Stockton, Ga.
August 4, 1944

Location of Accident and Method of Operation

This accident occurred on that part of the Waycross District extending westward from Waycross to Thomasville, Ga., 104 miles. This was a single-track line over which trains were operated by timetable and train orders. There was no block system in use. At Stockton, 42.5 miles west of Waycross, a siding 4,544 feet long paralleled the main track on the north. The east switch of the siding was 6,749 feet east of the station. The accident occurred on the main track 20 feet west of the east siding-switch. The main track was tangent throughout a distance of 36 miles east of Stockton and 24 miles westward. At the point of accident the grade was practically level.

The track structure consisted of 100-pound rail, 39 feet in length, laid new in June, 1927, on 24 ties to the rail length. It was fully tieplated, single-spiked, provided with 4-hole continuous angle bars, and was ballasted with gravel and slag to a depth of 8 inches.

The maximum authorized speed for passenger trains was 70 miles per hour.

Description of Accident

No. 57, a west-bound first-class passenger train, consisted of engines 1514 and 1513, one mail-express car, one express car, one mail car, one baggage car, four coaches, one Pullman sleeping car, three coaches, one passenger-baggage car and a U. S. Army hospital car, in the order named. All cars were of steel construction. After a terminal air-brake test was made this train departed from Waycross at 10:44 p. m., 29 minutes late, departed from Dupont, 8.3 miles east of Stockton and the last open office, at 11:36 p. m., 32 minutes late, and while it was moving at an estimated speed of 65 miles per hour the ninth to the fourteenth cars, inclusive, were derailed.

The engines and the first nine cars, remaining coupled, stopped with the front end of the first engine about 3,000 feet west of the point of derailment. The rear truck of the ninth car was derailed, and this car was slightly damaged. The ninth and tenth cars were separated about 1,180 feet. The tenth car, after being derailed, struck the engine of Second 214, an east-bound freight train, which was standing on the siding. This car was sheared practically its entire length diagonally from the floor on the right side to the juncture of the roof and side sheets on the left side, and the car stopped just beyond the west end of the engine of Second 214. All the fatalities and most of the injuries occurred in the tenth car, which was occupied by dead-head maintenance-of-way employees. The

eleventh and twelfth cars stopped against the side of the engine, and the right sides of these cars were badly damaged. The thirteenth and fourteenth cars stoped practically upright and in line with the track. These cars were slightly damaged. The engine and the first three cars of Second 214 were considerably damaged.

The rail involved was a 39-foot, 100-pound R. E. rail, manufactured by the Tennessee Coal, Iron and Railroad Co., in January, 1927, and was laid in the track during June, 1927. The brand was Tenn, Number 28061, Letter F.

It was clear at the time of the accident, which occurred about 11:45 p. m.

The train-service employee injured was the fireman of Second 214.

Discussion

No. 57 was moving at a speed of about 65 miles per hour in territory where the maximum authorized speed was 70 miles per hour. The headlight was lighted brightly. The enginemen were maintaining a lookout ahead. Prior to the time of the accident the engines and the cars were riding smoothly, and there was no indication of defective equipment nor of any obstruction having been on the track. When the engines passed over the point where the derailment occurred, the enginemen did not feel any abnormal condition of the track. The baggageman, who was in the fourth car, felt an unusual jar near the east siding-switch but was not aware of anything being wrong. The conductor, who was in the sixth car, felt an unusual movement of the car as it passed over the point where the accident occurred, and he immediately opened the emergency valve, but the brakes had already been applied.

After the accident a broken rail was found on the north side of the track. The rail was broken through the head, the web and the base at seven places. The first break occurred 4 feet 11-1/2 inches west of the receiving end of the rail. The receiving end of the second break, 1 foot 6 inches westward, was battered slightly, and the receiving end of the third break, 3 feet 1/2 inch westward, was battered considerably. The other breaks apparently occurred during the derailment. At the first break there was a transverse fissure covering about 40 percent of the cross-sectional area of the head of the rail, and it had progressed very close to the outer surface but had not broken through. A progressive fracture extended downward from the fissure through the web and about 75 percent of the base, and oxidation had darkened this area, which condition indicated

that the fracture had existed for some time prior to the accident. At breaks Nos. 2, 3, 4 and 7, there were transverse fissures, which covered, respectively, 40, 35, 5 and 18 percent of the cross-sectional area. None of these fissures extended to the outer surface. The roadmaster thought that the complete failure of the rail at the first break and the failure at the second break occurred when the engines passed over this portion of the rail, and the piece between these breaks was forced out of its proper alinement. Prior to the accident the fracture could not have been detected by visual inspection unless the surface at the location of the fracture had first been abraded and cleaned.

The track involved was last inspected by the section foreman about 36 hours prior to the accident, but no defective condition was observed. A detector car was last operated over this territory on August 7, 1943. This test did not disclose any defect in the rail in question.

From January 1, 1940, to June 30, 1944, this railroad has reported to the Commission 61 accidents caused either directly or indirectly by broken rails. These accidents indicate the operation of trains is such that excessive stresses are being exerted upon the track structure.

Cause

It is found that this accident was caused by a broken rail, as a result of the presence of transverse fissures.

Dated at Washington, D. C., this twenty-ninth day of August, 1944.

By the Commission, Chairman Patterson.

W. P. BARTEL,
Secretary.

(SEAL)