INTERSTATE COMMERCE COMMISSION

WASHINGTON

INVESTIGATION NO. 3074

SEABOARD AIR LINE RAILROAD COMPANY

REPORT IN RE ACCIDENT

NEAR MAXVILLE, FLA., ON

FEBRUARY 14, 1947

SUMMARY

Railroad:	Seaboard Air Line
Date:	February 14, 1947
Location:	Maxville, Fla.
Kind of accident:	Derailment
Train involved:	Passenger
Train number:	46
Engine numbers:	Diesel-electric units 3031-3019-3101
Consist:	16 cars
Speed:	75 m. p. h.
Operation:	Timetable and train orders, and manual-block system for following first-class trains and trains carrying passengers
Track:	Double; tangent; 0.13 percent descending grade northward
Weather:	Clear
Time:	7:45 p. m.
Casualties:	31 injured
Cause:	Broken rail

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 3074

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

SEABOARD AIR LINE RAILROAD COMPANY

March 4, 1947

Accident near Maxville, Fla., on February 14, 1947, caused by a broken rail.

REPORT OF THE COMMISSION[1]

PATTERSON, Commissioner:

On February 14, 1947, there was a derailment of a passenger train on the Seaboard Air Line Railroad near Maxville, Fla., which resulted in the injury of 23 passengers, 1 Pullman employee and 7 dining-car employees.

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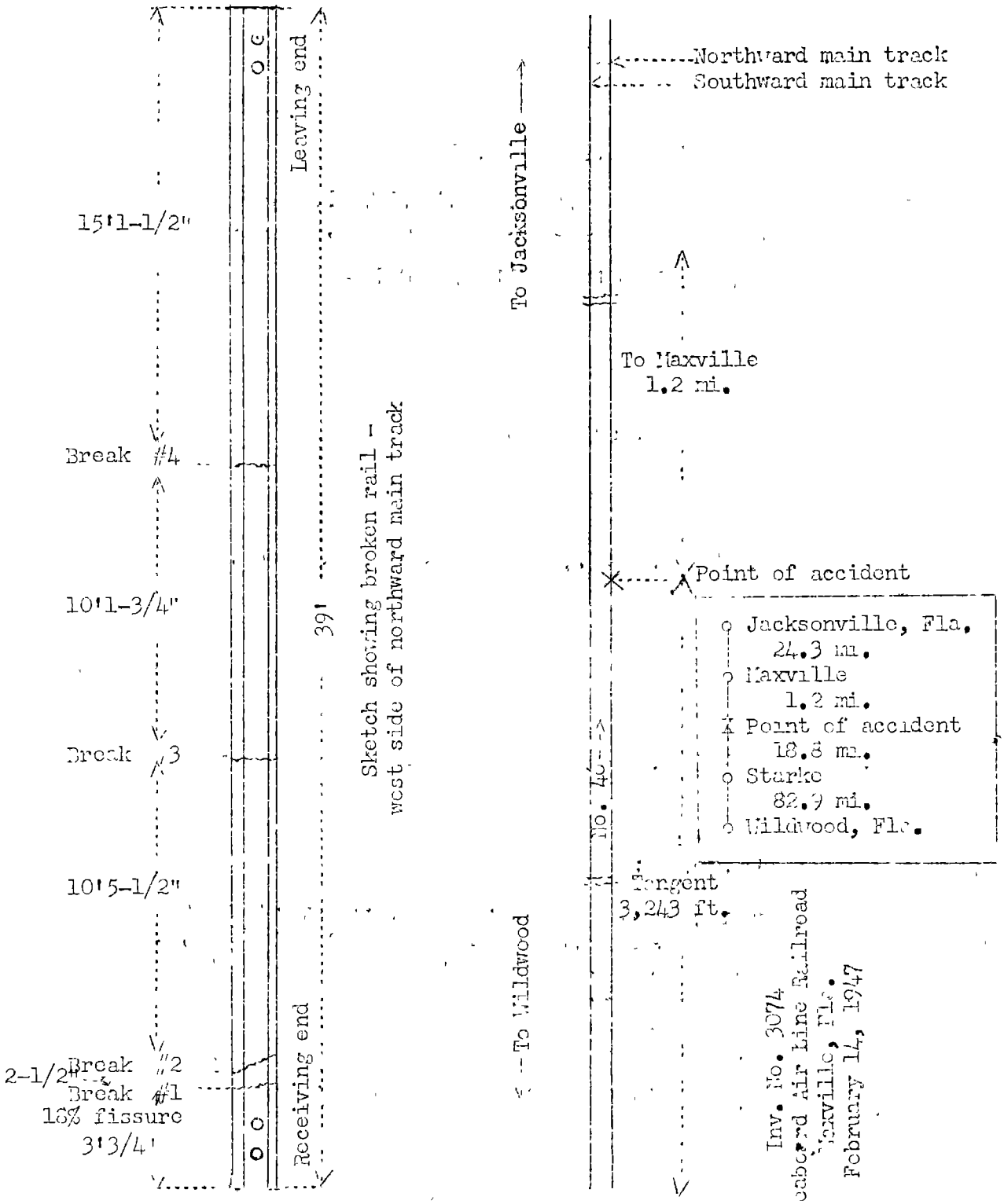
[1]Under authority of section 17 (2) of the Interstate Commerce Act the above-entitled proceeding was referred by the Commission to Commissioner Patterson for consideration and disposition.


Northward main track
Southward main track
To Jacksonville
To Maxville
1.2 mi.
Point of accident
Jacksonville, Fla.
24.3 mi.
Maxville
1.2 mi.
Point of accident
18.8 mi.
Starke
82.9 mi.
Wildwood, Fla.
No. 40
Tangent
3,243 ft.
To Wildwood
Leaving end
Receiving end
39'
15'1-1/2"
10'1-3/4"
10'5-1/2"
2-1/2"
Break #4
Break #3
Break #2
Break #1
16% fissure
3'3/4'
Sketch showing broken rail -
west side of northward main track
Inv. No. 3074
Seaboard Air Line Railroad
Maxville, Fla.
February 14, 1947

Location of Accident and Method of Operation

This accident occurred on that part of the North Florida Division extending between Wildwood and Jacksonville, Fla., 127.2 miles. In the vicinity of the point of accident this is a double-track line over which trains are operated by timetable and train orders, and a manual-block system for following first-class trains and trains carrying passengers. The accident occurred on the northward main track 101.7 miles north of Wildwood and 1.2 miles south of the station at Maxville. The track is tangent throughout a distance of 3,243 feet immediately south of the point of accident and a considerable distance northward. The grade is 0.13 percent descending northward.

The track structure of the northward main track consists of 100-pound rail, 39 feet in length, laid new during November, 1934, on an average of 22 treated ties to the rail length. It is fully tieplated, single-spiked, provided with 4-hole 100-percent angle bars and an average of 8 rail anchors per rail length. It is ballasted with crushed stone to a depth of about 6 inches. The involved rail section was manufactured in July, 1934, by the Tennessee Coal, Iron and Railroad Co. The brand was OH Tenn., No. 898563C, No. 22.

The maximum authorized speed for the train involved was 75 miles per hour.

Description of Accident

No. 46, a north-bound first-class passenger train, consisted of Diesel-electric units 3031, 3019 and 3101, coupled in multiple-unit control, one baggage car, five sleeping cars, one dining car, four sleeping cars, one dining car and four sleeping cars, in the order named. All cars were of steel construction. This train passed Starke, the last open office, 18.8 miles south of the point of accident, at 7:31 p. m., 9 minutes late, and while it was moving at a speed of 75 miles per hour the intermediate wheels of the rear truck of the eighth car and the ninth to sixteenth cars, inclusive, were derailed.

The Diesel-electric units and the first seven cars remained coupled, and stopped with the front of the first Diesel-electric unit about 3,000 feet north of the point of derailment. Separations occurred between the tenth and eleventh cars, between the fourteenth and fifteenth cars and between the fifteenth and sixteenth cars. The eighth to the tenth cars stopped upright, on the roadbed of the northward main track and in line with it, with the front of the eighth car 1,498 feet north of the point of derailment. The eleventh to fourteenth cars stopped upright, on the roadbed of the southward main track and practically in line with it, with the front of the eleventh car 572 feet south of the rear of the tenth car. The fifteenth and sixteenth cars

stopped upright on the roadbed of the southward main track and practically in line with it, with the front of the fifteenth car 25 feet south of the rear of the fourteenth car, and the front of the sixteenth car 26 feet south of the rear of the fifteenth car. The ninth to the sixteenth cars were considerably damaged, and the eighth car was slightly damaged.

The weather was clear at the time of the accident, which occurred about 7:45 p. m.

Discussion

No. 46 was moving at a speed of 75 miles per hour, as indicated by the speedometer of the first Diesel-electric unit, in territory where the maximum authorized speed for this train was 75 miles per hour, when the derailment occurred. The headlight of the first Diesel-electric unit was lighted brightly, and the enginemen were maintaining a lookout ahead from the control compartment at the front end of the first unit. The members of the train crew were in various locations throughout the cars of the train. Prior to the time the accident occurred, the Diesel-electric units and the cars had been riding smoothly, and there was no indication of defective equipment or track, nor of any obstruction having been on the track. The first that any member of the crew knew of anything being wrong was when the engineer heard an unusual noise under the first unit, and he immediately started to move the brake valve to emergency position. Before this action was completed the air gauge indicated that pressure was entirely depleted, and the engineer moved the brake valve to release position to prevent the separated portions of the train from colliding.

After the accident a broken rail was found on the west side of the northward main track. This rail was broken into five pieces. The first break occurred between two ties at a point 3-3/4 feet north of the receiving end of the rail. The second, third and fourth breaks occurred at points, respectively, 2-1/2 inches, 10 feet 8 inches and 20 feet 9-3/4 inches north of the first break. The receiving ends of the first, third and fourth breaks were battered considerably, and there were flange marks on the head of the rail at the first and second breaks. At the first break there was a transverse fissure covering 18 percent of the cross sectional area of the head of the rail, which did not extend to the surface of the rail. The remainder of the breaks in the head, and the breaks in the web and the base of the rail were new.

A north bound freight train passed over this track about 1 hour before the derailment occurred, and the crew did not observe any abnormal condition of the track. Apparently the failure of the rail at the first break occurred when the first Diesel-electric unit passed over it, then the succeeding breaks

occurred, the broken pieces became displaced and the derailment followed.

The track involved was last inspected by the section foreman about 8 hours before the derailment occurred, and no defective condition was observed. A rail-detector car was last operated over this territory on November 21, 1946. This test disclosed no defect in the rail in question.

Cause

It is found that this accident was caused by a broken rail.

Dated at Washington, D. C., this fourth day of March, 1947.

By the Commission, Commissioner Patterson.

W. P. BARTEL,

(SEAL)

Secretary.