

INTERSTATE COMMERCE COMMISSION
WASHINGTON

INVESTIGATION NO. 3191
GEORGIA RAILROAD
REPORT IN RE ACCIDENT
NEAR BELAIR, GA., CT
JUNE 23, 1948

SUMMARY

Railroad: Georgia
Date: June 23, 1948
Location: Belair, Ga.
Kind of accident: Rear-end collision
Trains involved: Freight : Freight
Train numbers: 22 : Second 210
Engine numbers: 202 : 322
Consists: 15 cars, caboose : 48 cars, caboose
Speeds: 15 m. p. h. : 41 m. p. h.
Operation: Timetable, train orders and
automatic block-signal system
Track: Single; tangent; 0.6 percent
descending grade eastward
Weather: Clear
Time: 5:45 p. m.
Casualties: 1 killed; 3 injured
Cause: Failure properly to control speed
of following train in accordance
with signal indications

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 3191

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

GEORGIA RAILROAD

August 13, 1948

Accident near Belair, Ga., on June 23, 1948, caused by failure properly to control the speed of the following train in accordance with signal indications.

REPORT OF THE COMMISSION¹

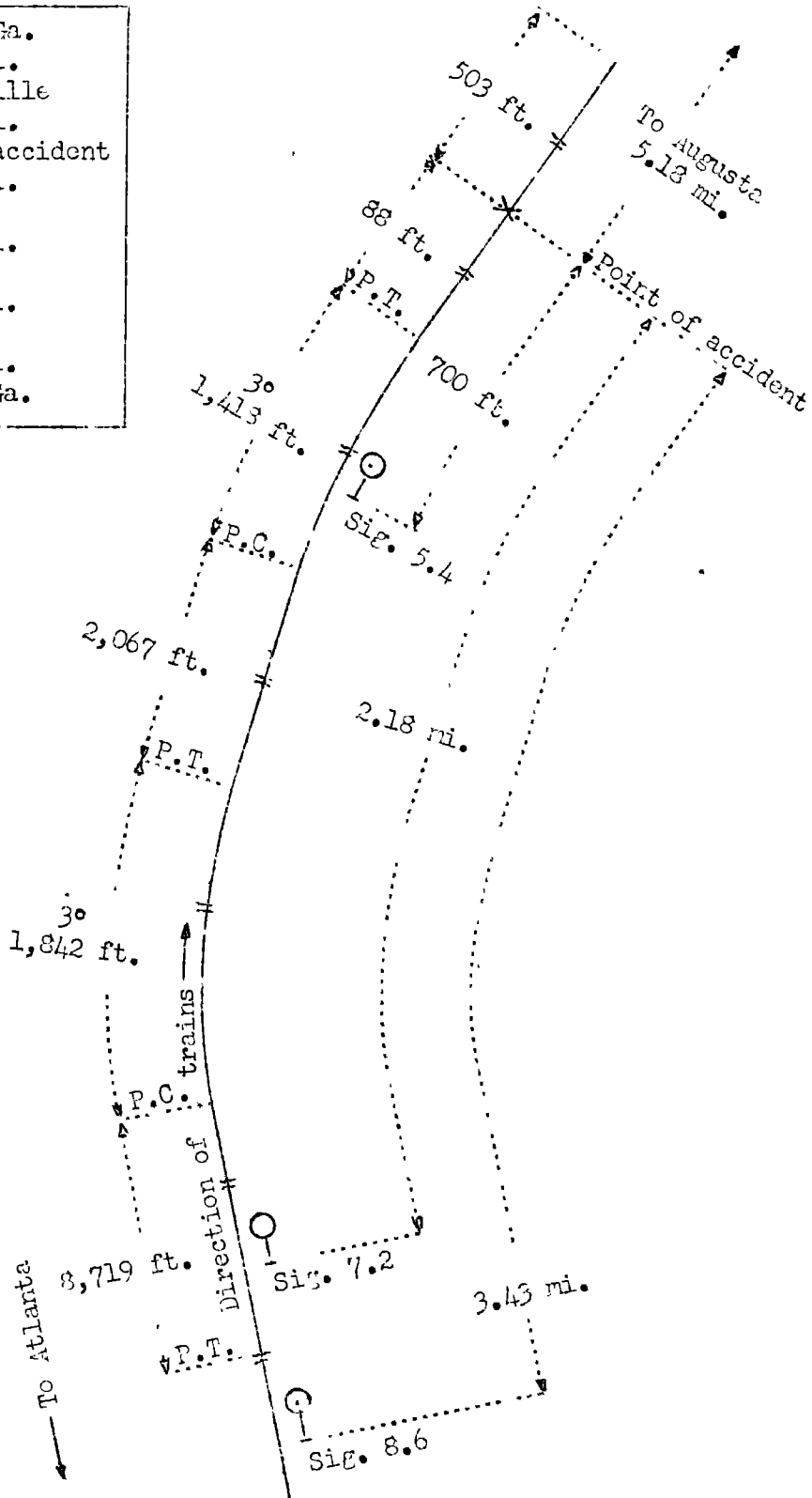
PATTERSON, Commissioner:

On June 23, 1948, there was a rear-end collision between two freight trains on the Georgia Railroad near Belair, Ga., which resulted in the death of one employee, and the injury of three employees.

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.

o	Augusta, Ga.	2.17 mi.
o	Harrisonville	3.01 mi.
X	Point of accident	4.62 mi.
o	Belair	5.25 mi.
o	Grovetown	31.80 mi.
o	Carak	124.02 mi.
o	Atlanta, Ga.	



Inv. No. 3191
 Georgia Railroad
 Belair, Ga.
 June 23, 1948

Location of Accident and Method of Operation

This accident occurred on that part of the railroad extending between Atlanta and Augusta, Ga., 170.87 miles, a single-track line, over which trains are operated by timetable, train orders and an automatic block-signal system. The accident occurred on the main track at a point 165.69 miles east of Atlanta and 4.62 miles east of the station at Belair. From the west there are, in succession, a tangent 1.65 miles in length, a 3° curve to the right 1,842 feet, a tangent 2,067 feet, a 3° curve to the right 1,418 feet and a tangent 88 feet to the point of accident and 503 feet eastward. Throughout a distance of 1 mile west of the point of accident the grade for east-bound trains varies from level to 0.7 percent descending and is 0.5 percent descending at the point of accident.

Automatic signals 8.6, 7.2, and 5.4, governing east-bound movements, are, respectively, 3.43 miles, 2.18 miles and 700 feet west of the point of accident. These signals are of the three-indication, color-light type, and are approach lighted. The controlling circuits are arranged on the absolute-permissive-block principle. The aspects and corresponding indications and names are as follows:

<u>Aspect</u>	<u>Indication</u>	<u>Name</u>
Green	Proceed	Clear Signal.
Yellow	Proceed at limited speed not exceeding thirty miles per hour and prepared to stop at next signal.	Approach Signal.
Red	STOP; then proceed in accordance with Rule 509B.	Stop and Proceed Signal.

This carrier's operating rules read in part as follows:

DEFINITIONS.

* * *

Fixed Signal.--A signal of fixed location indicating a condition affecting the movement of a train.

NOTE.--The definition of a "Fixed Signal" covers such signals as * * * block, * * *

LIMITED SPEED:

One-half the maximum authorized speed at point involved, not exceeding thirty (30) miles per hour.

RESTRICTED SPEED:

Proceed prepared to stop short of train, obstruction, or switch not properly lined, and to look out for broken rail.

85. * * *

* * *

Third class trains may run ahead of second class trains, at all times properly protecting as prescribed by Rule 99.

* * *

(c) If, from any cause, the speed of a train is so much reduced as to endanger the rear, the conductor will be held responsible for fully protecting it by the use of the proper signals.

99. When a train stops or is delayed, under circumstances in which it may be overtaken by another train, the flagman must go back immediately with stop signals to stop any train moving in the same direction. * * *

* * *

505. Block Signals govern the use of the blocks, but unless otherwise provided do not supersede the superiority of trains; nor dispense with the use or the observance of other signals whenever and wherever they may be required.

509 (B) When a train is stopped by a Stop and Proceed Signal, it may proceed, at Restricted Speed, * * *

522. When lights are not burning on Automatic Block Signals enginemen and trainmen will be governed as follows:

* * *

2. Where signal involved is of the Color Light Type, treat it as a STOP SIGNAL, and be governed by Rule * * * 509(2).

ENGINEMEN.

611. * * * Call to fireman the indication of fixed signals as they come into view.

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

Description of Accident

No. 22, an east-bound third-class freight train consisting of engine 209, 15 cars and a caboose, departed from Grovetown, the last open office, 9.37 miles west of the point of accident, at 5:05 p. m., 3 hours late. Near Belair, 4.62 miles west of the point of accident, it was stopped because of flagging signals. It proceeded eastward about 1,500 feet, where it again was stopped, then proceeded about 5:30 p. m. at restricted speed, passed automatic signals 8.6, 7.2 and 5.4, each of which displayed a proceed indication, and while it was moving at a speed of 15 miles per hour the rear end was struck by Second 210.

Second 210, an east-bound second-class freight train consisting of engine 325, 40 cars and a caboose, passed Grovetown at 5:30 p. m., 1 hour 5 minutes late, passed signal 8.6, which displayed a proceed-at-limited-speed indication, passed signal 7.2, which was dark, passed signal 5.4, the indication of which was not observed by the surviving members of the crew, and while moving at a speed of 41 miles per hour it struck the rear end of No. 22 at a point 700 feet east of signal 5.4.

The engine of Second 210 was derailed to the south and stopped on its left side and at right angles to the track, with its rear end about 3 feet south of the rail. The front end was badly damaged. The tender stopped upright, west of the engine and at an angle of about 15° to the track. The left front corner fouled the south rail. The cistern was bent and torn, and the frame was broken. The first six cars in the train were derailed and were somewhat damaged. The caboose and two rear cars of No. 22 were derailed and practically demolished.

The engineer of Second 210 was killed. The fireman and the front brakeman of Second 210 and the flagman of No. 22 were injured.

The weather was clear at the time of the accident, which occurred about 5:45 p. m.

Engine 322 of Second 210 was provided with LT-type air-brake equipment. The main reservoir carried a pressure of 130 pounds, and the feed valve was adjusted to supply brake-pipe pressure of 90 pounds. Approximately 82 percent of the cars of Second 210 were equipped with AB-type brakes.

Discussion

As No. 22 approached Belair it was stopped by the flagman of a maintenance-of-way force, who informed the engineer that a track motor-car hauling two trailers would precede the train to Harrisonville, a distance of about 8 miles. When the train departed, a lighted 10-minute red fusee was left to the rear. After this train had proceeded about 1,500 feet, the motor-car was overtaken and a second stop was made. After the brakes were released, the train proceeded eastward and was operated at a speed varying between 5 and 18 miles per hour, as indicated by the speed-recorder tape, until it was struck by Second 210. Although the speed was considerably below the normal speed of freight trains in this territory and the view of the track ahead from the engine of a following train was restricted at different points by track curvature and vegetation adjacent to the track, no lighted fusee was thrown off, nor other protection provided.

As Second 210 approached the point where the accident occurred, the engineer, the fireman and the front brakeman were in their respective positions in the cab of the engine. There was no condition of the engine that distracted their attention or obscured their vision. When the engine passed signal 8.6, which displayed a proceed-at-limited-speed indication, the engineer called the indication and made a brake-pipe reduction, which reduced the speed to about 30 miles per hour, then the brakes were released. When the engine passed signal 7.2, the fireman was back on the tender and failed to observe the indication displayed by the signal. The front brakeman could see no light on this signal, and he crossed over to the engineer's side of the engine and inquired if the signal was dark. The engineer nodded his head in the affirmative, but took no action to stop the train, and the brakeman returned to his position without making any protest, or inquiry, concerning failure to stop in compliance with the rules. When the train was approaching signal 5.4, the fireman had returned to his position in the cab, but because of track curvature neither he nor the front brakeman could see the aspect of that signal from the left side of the engine. The speed had been increased to about 40 miles per hour when the engineer placed the brake valve in emergency position. The fireman immediately crossed to the right side of the cab, saw the caboos of No. 22 a short distance ahead, crossed back to the left side of the

cab and jumped from the left gangway, then the front brakeman jumped from the left side. The engineer, who was the only member of the crew in position to observe the indication of signal 5.4 as the train approached it, was killed in the accident. About 1 hour after the accident occurred, and while part of the train was still standing west of the signal, the conductor observed that the signal was displaying stop and proceed.

Several hours after the accident occurred, the engineer of an engine which passed signal 7.2 reported this signal as being dark. An inspection by a signal maintainer the following morning disclosed that the signal remained dark for one of several train movements, but functioned properly for all the others. He removed the bulb and discovered that the filament had been broken. Apparently, the signal was dark when the engine of Second 210 passed it but, because of vibration caused by moving trains, the broken ends touched each other, and the signal became lighted. After the track had been cleared and repaired, a test of all signal apparatus involved was made by the signal supervisor, and all was found to be operating properly.

Because of track curvature and a roadway cut covered with thick undergrowth, the view from the right side of the cab of the engine of an east-bound train approaching the point of accident is materially restricted. Observation disclosed that from the right side of an east-bound engine there is an unobstructed view of signal 5.4 for 1,251 feet. The brakes of Second 210 had functioned properly. Tests after the accident disclosed no defective condition of the braking equipment of this train.

Cause

It is found that this accident was caused by failure properly to control the speed of the following train in accordance with signal indications.

Dated at Washington, D. C., this thirteenth day of August, 1948.

By the Commission, Commissioner Patterson.

W. P. BARTEL,
Secretary.

(SEAL)