

INTERSTATE COMMERCE COMMISSION
WASHINGTON

INVESTIGATION NO. 2823
THE CENTRAL OF GEORGIA RAILWAY COMPANY
REPORT IN RE ACCIDENT
NEAR MACON JUNCTION, GA., ON
AUGUST 31, 1944

SUMMARY

Railroad: Central of Georgia
Date: August 31, 1944
Location: Macon Junction, Ga.
Kind of accident: Rear-end collision
Trains involved: Freight : Passenger
Train numbers: 41 : 32
Engine numbers: 471, 25 : 457
Consist: 44 cars, caboos : 20 cars
Estimated speed: Standing : 20 m. p. h.
Operation: Signal indications
Track: Single; 4°32' curve; 0.74 percent ascending grade westward
Weather: Foggy
Time: 6:35 a. m.
Casualties: 1 killed; 40 injured
Cause: An inadequate centralized-traffic-control installation

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 2823

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

THE CENTRAL OF GEORGIA RAILWAY COMPANY

October 10, 1944.

Accident near Macon Junction, Ga., on August 31, 1944,
caused by an inadequate centralized-traffic-control
installation.

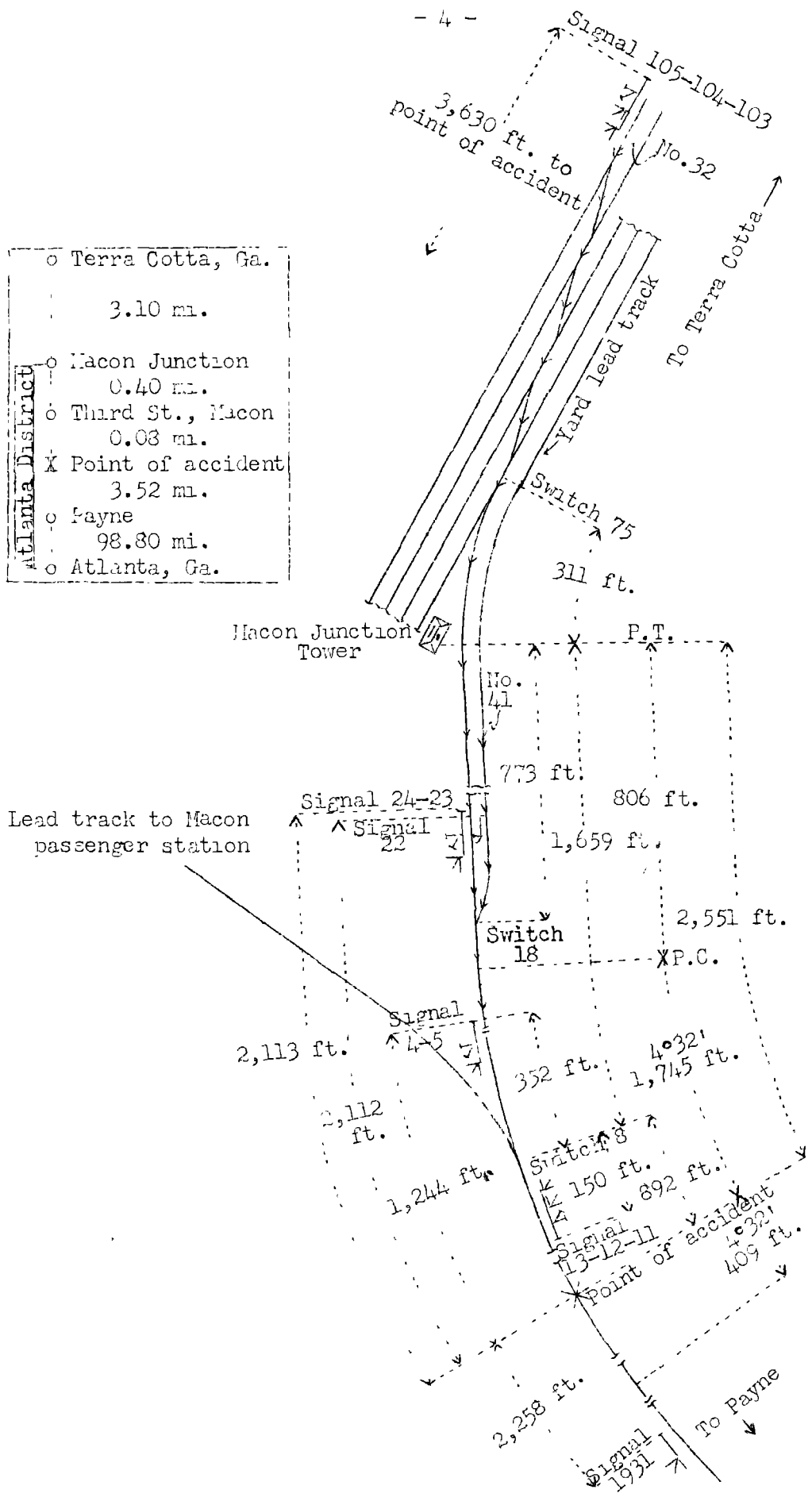
REPORT OF THE COMMISSION¹

PATTERSON, Chairman:

On August 31, 1944, there was a rear-end collision between a freight train and a passenger train on the Central of Georgia Railway near Macon Junction, Ga., which resulted in the death of one employee, and the injury of 34 passengers, 1 person carried under contract and 5 employees.

¹Under 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.

Atlanta District	o Terra Cotta, Ga.	3.10 mi.
	o Macon Junction	0.40 mi.
	o Third St., Macon	0.03 mi.
	x Point of accident	3.52 mi.
	o Payne	98.80 mi.
	o Atlanta, Ga.	



Inv. No. 2823
 Central of Georgia Railway
 Macon Junction, Ga.
 August 31, 1944

Location of Accident and Method of Operation

This accident occurred on that part of the Atlanta District extending northwestward from Macon Junction to Atlanta, Ga., 102.8 miles. Between Macon Junction and Payne, 4 miles, this was a single-track line over which trains were operated by signal indications. Within interlocking limits at Macon Junction, this line converged with a double-track line of the Albany District extending southwestward to Terra Cotta, 3.1 miles. According to time-table directions, trains moving from Macon Junction to Atlanta were west-bound, and trains moving from Terra Cotta to the passenger station at Macon were east-bound. Hereinafter, time-table directions will be used in this report. The interlocking tower was located 311 feet west of the switch, designated as switch 75, which connected the lines of the two districts. Trains en route from the Albany District to the passenger station at Macon entered the Atlanta District main track at switch 75, proceeded westward on the main track a sufficient distance for the train to clear switch 8, located 1,659 feet west of the tower, and then moved in backward motion through switch 8 to a lead track extending toward the passenger station. Trains en route westward from the freight classification yard at Macon to the Atlanta District entered the main track at switch 18, located 773 feet west of the tower. The accident occurred on the main track 2,551 feet west of the tower. From the east on the main track there was a tangent 806 feet in length, which was followed by a $4^{\circ}32'$ curve to the left 1,745 feet to the point of accident and 409 feet beyond. The grade for west-bound trains varied between 0.30 percent and 0.99 percent ascending 2,690 feet to the point of accident, and was 0.74 percent ascending at this point.

Interlocking signal 105-104-103, governing movements from the Albany District through switch 75 to the Atlanta District main track, interlocking signals 24-23 and 4-5, and semi-automatic signal 1931, which governed west-bound movements on the Atlanta District main track, were located, respectively, 3,630 feet east, 2,113 feet east, 1,244 feet east and 2,258 feet west of the point of accident. The upper unit of signal 4-5 was also connected into the centralized-traffic-control system and authorized movements to signal 1931. The lower unit of signal 4-5 was not controlled by a track circuit, but its operating lever was provided with an electric lock, operative in normal position, and its control extended to a point approximately 2,000 feet west of signal 1931. Interlocking signal 22, which governed west-bound movements from the freight classification yard through switch 18 to the Atlanta District main track, was located 2,112 feet east of the point of accident. Signal 105-104-103 was of the three-arm, upper-quadrant, semaphore type; signals 24-23 and 4-5 were of the two-arm, upper-quadrant, semaphore type; signal 22 was a dwarf signal of the one-arm, upper-quadrant, semaphore type; and signal 1931 was of the one-arm, upper-quadrant, semaphore type. The involved aspects

and corresponding indications and names of these signals were as follows:

	<u>Aspect</u>	<u>Indication</u>	<u>Name</u>
Signal 105-104-103	Red-over-red-over-yellow.	Proceed at slow speed prepared to stop.	Slow-Speed-Signal
Signal 24-23 and signal 4-5	Red-over-yellow.	Proceed at slow speed prepared to stop.	Slow-Speed-Signal.
Signal 22	Yellow.	Proceed at slow speed prepared to stop.	Slow-Speed-Signal.
Signal 1931	Red.	Stop.	Stop-Signal.

Operating rules read in part as follows:

99. When a train stops under circumstances in which it may be overtaken by another train, the flagman must go back immediately with flagman's signals a sufficient distance to insure full protection, placing two torpedoes, and when necessary, in addition, displaying lighted fuseses.

* * *

Flagman's signals:

* * *

Night signals--A red light,
A white light,
Torpedoes and
Fuseses.

614. Signals must be restored so as to display their most restrictive indication as soon as the train or engine for which they were cleared has passed.

Bulletin Order No. 44-102, issued January 1, 1944, read in part as follows:

SPECIAL Instructions for Operation by Signal Indication
Between Macon and Payne

Electric block signals between Payne and Third St., Macon are controlled by the operator at Macon Junction, and train will operate between these points on the signal indication which supersedes the superiority of trains but does not dispense with the use or observance of other signals whenever they may be required.

* * *

Third St., Macon, was 0.4 mile west of Macon Junction.

Bulletin Order No. 3083, issued September 15, 1930, read in part as follows:

* * *

ALL CONCERNED:

Effective 12:01 A.M. Wednesday, September 17th, * * * Be governed as follows:

For the information of crews pushing trains between Macon Yard and Payne, there are three lights on Macon Junction interlocking tower; indication as follows:

Rule 1. One light burning, proceed to Payne.

Rule 2. Two lights burning, take siding at Vineville.

Rule 3. Three lights burning, return from rear or just east of Signal 194-6.

* * *

Vineville and Signal 194-6 were west of Signal 1931.

The maximum authorized speed for all trains through the interlocking at Macon Junction was 15 miles per hour, and for passenger trains between this interlocking and Atlanta it was 60 miles per hour.

Description of Accident

No. 41, a west-bound second-class freight train, consisted of engine 471, 44 cars, a caboosè and engine 25, in the order named. Engine 25, a Diesel-electric yard engine, was assisting No. 41 on the ascending grade. This train departed from the freight classification yard at Macon at 6:05 a. m., passed signal 22, which displayed proceed-at-slow-speed-prepared-to-stop, entered the main track at switch 18, passed signal 4-5, which displayed proceed-at-slow-speed-prepared-to-stop, and stopped at signal 1931, which displayed stop, at 6:17 a. m. About 18 minutes later the rear end was struck by No. 32.

No. 32, an east-bound first-class passenger train en route from the Albany District to the passenger station at Macon, consisted of engine 457, 2 refrigerator-express cars, 1 baggage car, 4 refrigerator-express cars, 3 express cars, 5 coaches and 5 Pullman sleeping cars, in the order named. The first,

second, fourth, fifth, sixth and seventh cars were of steel-underframe construction and the remainder were of all-steel construction. This train passed signal 105-104-103, which displayed proceed-at-slow-speed-prepared-to-stop, entered the Atlanta District main track at switch 75, passed signals 24-23 and 4-5, which displayed proceed-at-slow-speed-prepared-to-stop, and while moving at an estimated speed of 20 miles per hour it struck the rear end of No. 41 at a point 1,244 feet west of signal 4-5.

Engine 25, the caboose and rear two cars of No. 41, and engine 457 of No. 32 were derailed and badly damaged.

It was dark and foggy at the time of the accident, which occurred about 6:35 a. m.

A switchman of engine 25 was killed. The flagman of No. 41, a switchman of engine 25, and the engineer, the fireman and the flagman of No. 32 were injured.

Discussion

The rules governing operation in this territory provide that movements in either direction on the main track may be made when authorized by proper signal indication. Trains moving under authority of a slow-speed indication must be operated at slow speed prepared to stop. Slow speed was not defined by rule or special instruction. Flag protection must be provided for a train stopped under circumstances in which it may be overtaken by another train.

About 18 minutes after No. 41 had stopped in compliance with a stop indication displayed by signal 1931 on account of a preceding train occupying the block, its rear end was struck by No. 32, at a point 892 feet west of switch 8. A lighted white light was displayed on the rear end of engine 25, which was coupled to the rear of No. 41. Under the rules, flag protection was required for No. 41. No. 32 was moving under authority of a slow-speed indication.

Soon after No. 41 stopped, the conductor proceeded toward the front end of the train. When the accident occurred, the flagman of No. 41 was in the caboose. The crew of engine 25 consisted of a foreman, two switchmen, an engineer and a fireman. Just prior to the accident the foreman gave stop signals with a lighted white lantern, from a point a few feet east of engine 25. The other members of the crew, except one switchman who was killed in the accident, jumped from the engine just before the collision occurred. The foreman said that when No. 41 passed the tower at Macon Junction three white lights were displayed, which was the prescribed signal to inform the crew of

a yard engine assisting a west-bound train that the engine was to return to Macon Junction from a point just east of signal 194-6. During a period of several years it had been the practice for west-bound trains to occupy the main track in this territory without flag protection when the three white lights were displayed at the tower. The instructions governing the display of these lights contained no provision which modified the flagging rule. However, it was the understanding of the surviving members of the crew of engine 25 and the conductor of No. 41 that under these circumstances flag protection was not required for No. 41. There was an ample supply of torpedoes and fuses on engine 25. If flag protection had been provided for No. 41, this accident probably would have been averted.

As No. 32 was approaching the point where the accident occurred the speed was about 20 miles per hour. The brakes had functioned properly at all points where used en route. The headlight was lighted brightly, and the enginemen were maintaining a lookout ahead. The indication displayed by signal 4-5 was slow-speed, and the enginemen called the indication. From this point westward visibility was materially restricted because of embankments adjacent to the track on the curve and fog. When the engine reached a point about 250 feet east of the point where the accident occurred, the enginemen saw stop signals being given with a lighted white lantern. The engineer immediately moved the brake valve to emergency position, but the collision occurred before the brakes became effective. It was necessary for the engine of No. 32 to proceed to a point about 800 feet west of the point where the accident occurred for the rear end of the train to clear switch 8, where the back-up movement toward the station was to be started.

The accident occurred about 742 feet west of the west limit of the interlocking, in territory where trains were being operated by signal indications only. Within the interlocking limits the maximum authorized speed was 15 miles per hour, and the movement of the passenger train through the interlocking was governed by signal indications which authorized it to proceed at slow speed prepared to stop. The same indication had been displayed for train No. 41 at signal 4-5, and after the passage of that train the operator-leverman did not return the signal to normal position, as required by the rules, but, in accordance with past practice, he permitted it to continue to display the same indication for the passenger train. This signal was so arranged that if he had returned it to stop position after the preceding train passed it, he would have been unable to change the indication as long as the track between that signal and signal 1931 was occupied. Signal 4-5 was used

both as an interlocking signal and as the signal governing entrance to centralized-traffic-control territory. Section 405 of the Commission's order of April 13, 1939, prescribing rules, standards, and instructions for centralized-traffic-control systems, requires that signals shall be automatically controlled by continuous track circuits on main tracks and on other tracks where medium speed is permitted. The lower arm of signal 4-5 was not provided with track-circuit control, and, therefore the centralized-traffic-control installation was in violation of the Commission's order. Under the conditions which existed at the time of this accident and the practices which were being followed at this point, this signal displayed the same indication regardless of whether the track immediately beyond it was occupied. If this signal had been arranged to indicate track occupancy as required by the Commission's order, a stop indication would have been displayed for No. 32, and the accident would have been averted.

Cause

It is found that this accident was caused by an inadequate centralized-traffic-control installation.

Dated at Washington, D. C., this tenth day of October, 1944.

By the Commission, Chairman Patterson.

(SEAL)

W. P. BARTEL,
Secretary.