INTERSTATE COMMERCE COMMISSION

WASHINGTON

INVESTIGATION NO. 2759

THE SEABOARD AIR LINE RAILWAY COMPANY

REPORT IN RE ACCIDENT

AT ENORY, GA., ON

JANUARY 8, 1944

SUMMARY

Railroad:	Seaboard Air Line	
Date:	January 8, 1944	
Location:	Emory, Ga.	
Kind of accident:	Head-end collision	
Trains involved:	Freight	: Passenger
Train numbers:	Second 82	: Second 89
Engine numbers:	2485	: 2489
Consist:	18 cars, caboose	: 10 cars, caboose
Estimated speed:	15-18 m. p. h.	: 15 m. p. h.
Operation:	Timetable and train orders, and manual-block system for following passenger trains only	
Track:	Single; 2° curve; 1 percent descending grade southward	
Weather:	Raining	
Time:	1:52 a. m.	
Casualties:	1 killed; 32 injured	
Cause:	Lap of authority of two opposing trains	
Recommendation:	That the Seaboard Air Line Railway Company establish an adequate block system on the line on which this accident occurred	

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 2759

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

THE SEABOARD AIR LINE RAILWAY COMPANY

February 8, 1944.

Accident at Emory, Ga., on January 8, 1944, caused by lap of authority of two opposing trains.

REPORT OF THE COMMISSION[1]

PATTERSON, Chairman:

On January 8, 1944, there was a head-end collision between a freight train and a passenger train on the Seaboard Air Line Railway at Emory, Ga., which resulted in the death of 1 employee, and the injury of 22 passengers, 2 Pullman employees and 8 train-service employees.

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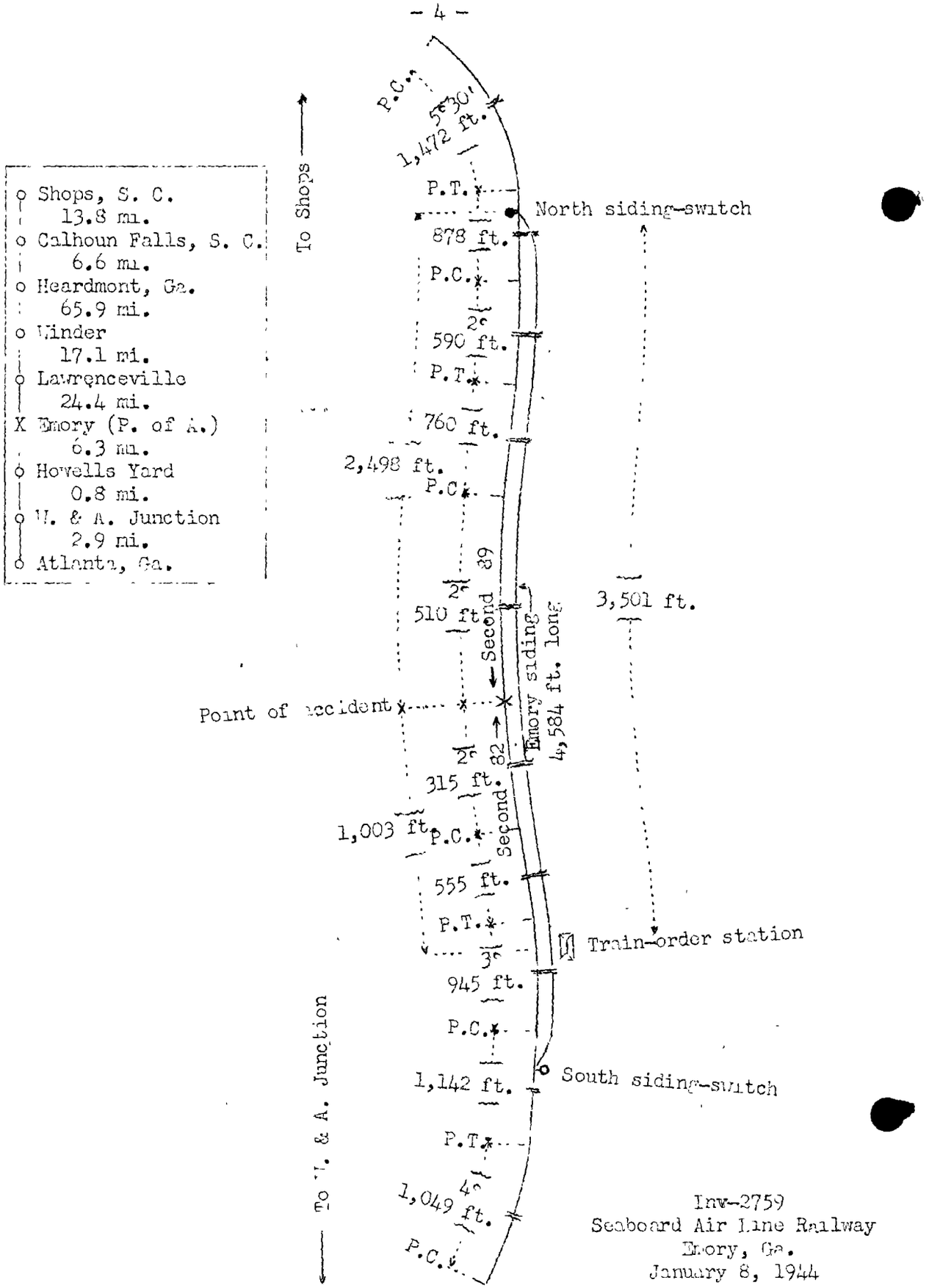
[1]Under authority of section 17 (2) of the Interstate Commerce Act the above-entitled proceeding was referred by the Commission to Chairman Patterson for consideration and disposition.



Inv-2759
Seaboard Air Line Railway
Emory, Ga.
January 8, 1944

Location of Accident and Method of Operation

This accident occurred on that part of the Georgia Division designated as the Atlanta Sub-division and extending between Shops, S. C., and W. & A. Junction, near Atlanta, Ga., 134.9 miles. This was a single-track line over which trains were operated by timetable and train orders, and a manual-block system for following passenger trains only. At Emory a siding 4,584 feet in length paralleled the main track on the east. The train-order station at Emory was located 3,501 feet south of the north siding-switch. The accident occurred on the main track 2,498 feet south of the north siding-switch and 1,003 feet north of the train-order station. From the south there were, in succession, a 4° curve to the left 1,049 feet, a tangent 1,142 feet, a 3° curve to the left 945 feet, a tangent 555 feet and a 2° curve to the right 315 feet to the point of accident and 510 feet beyond. From the north there were, in succession, a 5°30' curve to the right 1,472 feet, a tangent 878 feet, a 2° curve to the right 590 feet, a tangent 760 feet and the curve on which the accident occurred. At this point the grade was 1 percent descending southward.

Operating rules read in part as follows:

SUPERIORITY OF TRAINS.

71. A train is superior to another train by right, class or direction.

Right is conferred by train order; * * *

Right is superior to class or direction.

* * *

72. * * *

Trains in the direction specified by the time-table are superior to trains of the same class in the opposite direction.

205. Each train order must be written in full in a book provided for the purpose at the office of the Superintendent, and with it recorded the names of those who have signed for the order; the time and the signals which show when and from what offices the order was repeated and the responses transmitted; and the train dispatcher's initials. These records must be made at once, and never from memory or memoranda.

206. * * *

In transmitting train orders by telephone, the numbers of trains and engines in the address will be plainly pronounced. All stations and numerals in the body of an order must first be spelled, letter by letter, and then plainly pronounced, thus: A-u-r-o-r-a, Aurora and O-n-e-O-F-i-v-e, One O Five.

* * *

When train orders are transmitted by telegraph, the train dispatcher must underscore each word and figure in the body of the order at the time it is repeated. When transmitted by telephone, he must write the order as he transmits it, and underscore as prescribed above.

208. A train order to be sent to two or more offices must be transmitted simultaneously to as many of them as practicable. * * *

The several addresses must be in the order of superiority of trains, * * *

Copies of the order addressed to the operator at the meeting or waiting point must be delivered to the trains affected until all have arrived from one direction.

* * *

211. When a "19" train order has been transmitted, operators must (unless otherwise directed) repeat it at once from the manifold copy, in the succession in which the several offices have been addressed. Each operator receiving the order must observe whether the others repeat correctly. When the order has been repeated correctly by an operator, the response "complete" and the time with the initials of the Superintendent, will be given by the dispatcher. * * *

FORMS OF TRAIN ORDERS.

* * *

Form S-A. Fixing Meeting Points for Opposing Trains.

EXAMPLES.

(1) "No. 1, Eng. 212, meet No. 2, Eng. 213, at "B."

* * *

Form S-C. Giving Right Over an Opposing Train

EXAMPLES.

(1) "No. 1, Eng. 820, has right over No. 2, Eng. 822, "A" to "G."

* * *

GENERAL REGULATIONS.

* * *

TRAIN DISPATCHERS.

792. * * * They will carefully note operators repeating orders to observe that they are correctly repeated.

GENERAL ORDER NO. 36, effective April 15, 1943, provided as follows:

> In fixing meeting points for opposing trains and it is desired that the superior train (by Right or Class or Direction) take siding, the following may be added:
>
> Under example (1) "No. 2 take siding."
>
> * * *

Time-table instructions read in part as follows:

> (Rule 72) All northward trains are superior to trains of the same class in opposite direction.

In the immediate vicinity of the point of accident, the maximum authorized speed for passenger trains hauled by steam engines was 50 miles per hour, and for freight trains, 40 miles per hour.

Description of Accident

At Howells Yard, Ga., 6.3 miles south of Emory, the crew of Second 82, a north-bound second-class freight train, received, among others, copies of train orders Nos. 244 and 14, Form 19, reading as follows:

244

Second 89 Eng 2489 has Right over. First 82 Eng unknown Calnoun Falls to Winder and hold main track and has right over Second 82 Eng unknown Calnoun Falls to Howells Yard

14

Second 89 Eng 2489 Meet Second 82 Eng 2485 at Emory Second 89 Take Siding

Second 82, consisting of engine 2485, 18 loaded cars and a caboose, departed from Howells Yard at 1:42 a. m., 6 hours 42 minutes late, passed the train-order signal at Emory at 1:51 a. m., 6 hours 31 minutes late, where the crew received copies of train order No. 14 addressed to the operator at Emory. While this train was moving at an estimated speed of 15 to 18 miles per hour it collided with Second 89 on the main track, 2,498 feet south of the north siding-switch at Emory.

At Calhoun Falls, S. C., 114 miles north of Emory, the crew of Second 89, a south-bound second-class passenger train, received copies of train order No. 244, Form 19. This train consisted of engine 2489, one baggage car, one Pullman sleeping car, two tourist sleeping cars, one baggage car, three tourist sleeping cars, one Pullman sleeping car, one tourist sleeping car and a caboose, in the order named. All passenger-equipment cars were of steel construction. This train departed from Calhoun Falls at 8:37 p. m., January 7, 2 hours 52 minutes late, and, at Lawrenceville, Ga., 24.4 miles north of Emory, the crew received copies of train order No. 14, Form 19, reading as follows:

Second 89 Eng 2489 Meet Second 82 Eng 2485 at Emory Second 82 take Siding

This train departed from Lawrenceville at 1:14 a. m., January 8, 4 hours 26 minutes late, passed the north siding-switch at Emory, where it would have been required to enter the siding if the order had read correctly, and while moving at an estimated speed of 15 miles per hour it collided with Second 82.

The air brakes of each train had been tested and had functioned properly en route.

From an engine moving in either direction in the vicinity of the point of accident, the view of an engine approaching from the opposite direction was restricted to about 800 feet, because of vegetation adjacent to the track, a cut just south of the point of accident and track curvature.

The engine truck of the engine of Second 82 was derailed and badly damaged, the boiler was moved backward on the frame, the front-end frames and the cylinder assembly were broken and the smokebox was telescoped about 12 inches. The sixth and seventh cars were derailed. The sixth car was destroyed. The engine truck of the engine of Second 89 was demolished, the smokebox was telescoped, the engine frame and the left cylinder were broken and the cab was crushed. The rear end-sheet of the tender was crushed inward. The first car was badly damaged.

It was raining at the time of the accident, which occurred at 1:52 a. m.

The engineer of Second 89 was killed, and the engineer of Second 82, the fireman of Second 89, and the conductor, the front brakeman and the flagman of each train were injured.

During the 30-day period preceding the day of the accident, the average daily movement in the vicinity of the point of accident was 19.9 trains.

Discussion

The rules governing operation on this line provide that a train may be made superior to other trains by a right-of-track order. Superiority by right takes precedence over class or direction; however, a train made superior by a right-of-track order may be made inferior at a designated train-order meeting point within the limits of the right-of-track territory by being directed to take siding. When the telephone is used for dispatching trains, the train dispatcher is required to write train orders in full at the time of transmission, in the book provided for the purpose. Operators receiving an order must write it during transmission on the prescribed form and repeat it to the dispatcher in the succession in which the several offices were addressed. Each operator receiving the order must observe whether the other operators repeat it correctly. During repetition, the dispatcher must underscore in his train-order book each word and figure in the body of the order. All stations and numerals in the body of the order must first be spelled, then pronounced plainly. The dispatcher and the operators concerned in this investigation understood these requirements.

Second 82 and Second 89 were second-class trains. Second 89 was inferior by direction. The crews of both trains held copies of train order No. 244, which gave Second 89 right over Second 82 between Calhoun Falls and Howells Yard, a distance of 120.3 miles. Train order No. 14 established a meeting

point between Second 89 and Second 82 at Emory, a station within the limits of the right-of-track territory. The crew of Second 89 received train order No. 14 at Lawrenceville, 24.4 miles north of Emory, and the crew of Second 82 received it at Howells Yard, 6.3 miles south of Emory. In addition, copies of train order No. 14, addressed to the operator at Emory, were delivered to Second 82 as it passed the train-order station at Emory. The copies of train order No. 14 held by the crew of Second 89 directed Second 82 to take siding at the meeting point, but the copies held by the crew of Second 82 and the copies addressed to the operator at Emory directed Second 89 to take siding. The discrepancy in the copies held by the crews of these trains resulted in each train being authorized to occupy the main track between the switches of the siding at the meeting point. Second 82 departed from Howells Yard at 1:42 a. m., and passed the train-order station at Emory at 1:51 a. m. Second 89 departed from Lawrenceville at 1:14 a. m., passed the north siding-switch at Emory, where it would have been required to enter the siding if the order addressed to this train had read correctly, and collided with Second 82 at a point 2,498 feet south of the north siding-switch. The members of the crew on the engine of each train were unable to see the other train more than 800 feet. When the members of the crew on each engine became aware that the other train was occupying the main track, it was too late to avert the collision.

The dispatcher's train-order book indicated that train order No. 14 was addressed simultaneously by the dispatcher to Second 89 at Lawrenceville, to Second 82 at Howells Yard, and to the operator at Emory, in that succession, and it was repeated in the same succession. During the repetition, the dispatcher underscored each word and numeral in the body of the order as each operator repeated it, then made the order complete to each station at 12:59 a. m. Each operator listened while the other operators repeated the order. The telephone line was free from interference. The dispatcher transmitted the order slowly, clearly and distinctly, and the order was repeated by each operator in the same manner. There was no interruption during either the transmission or the repetition of the order. The operators at Howells Yard and Emory and the dispatcher said that the operator at Lawrenceville repeated the order as directing Second 89 to take siding at Emory, but the operator at Lawrenceville said that he repeated the order as directing Second 82 to take siding, and that he repeated slowly, and spelled and pronounced each numeral plainly. He understood the other operators to repeat their copies as directing Second 82 to take siding. Soon after the accident occurred, the assistant chief dispatcher called the operators at Lawrenceville, Howells Yard and Emory, and listened to them while they repeated the order.

The latter two repeated the order as directing Second 89 to take siding, but the operator at Lawrenceville repeated the order as directing Second 82 to take siding. The operator at Lawrenceville could assign no reason why he copied the train order as directing Second 82 to take siding, nor why he failed to detect the discrepancy during repetition by the other operators. He said that he did not know a previous order had made Second 89 superior to Second 82; however, since he was the first to be addressed in the issuance of order No. 14 he should have been impressed that either Second 89 was superior or that the provision for Second 82 to take siding was erroneously transmitted by the dispatcher. If the copies of the order addressed to Second 89 had directed that train to take siding, this accident would have been prevented.

The manual-block system used on this line applied to following movements of first-class trains and passenger trains only. The book of operating rules of this railroad contains manual-block rules which provide for the blocking of opposing movements, but these rules were not in effect in the territory involved. During a 22-month period immediately preceding the day of the accident, seven other accidents, resulting in the death of 10 persons and the injury of 139 persons, occurred on the lines of this carrier under the same system of operation as the one in the present case. Two of these accidents, which were head-end collisions, occurred on the same division on which the present accident occurred. In its reports of the investigations of the seven accidents, the Commission recommended that the Seaboard Air Line Railway Company establish an adequate block-signal system on the line involved. In the instant case, if an adequate block system had been in use in this territory, the accident would not have occurred.

Cause

It is found that this accident was caused by lap of authority of two opposing trains.

Recommendation

It is recommended that the Seaboard Air Line Railway Company establish an adequate block system on the line on which this accident occurred.

Dated at Washington, D. C., this eighth day of February, 1944.

By the Commission, Chairman Patterson.

W. P. BARTEL,
Secretary.

(SEAL)