

INTERSTATE COMMERCE COMMISSION  
WASHINGTON

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INVESTIGATION NO. 2714  
THE ATLANTIC COAST LINE RAILROAD COMPANY  
REPORT IN RE ACCIDENT  
AT MILAN, N. C., ON  
JULY 24, 1943

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SUMMARY

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Railroad: Atlantic Coast Line

Date: July 24, 1943

Location: Milan, N. C.

Kind of accident: Rear-end collision

Trains involved: Passenger : Passenger

Train numbers: 1 : 7

Engine numbers: 1549-1526 : Diesel-electric  
units 501-751-504

Consist: 14 cars : 18 cars

Speed: 2-5 m. p. h. : 24 m. p. h.

Operation: Timetable, train orders and  
automatic block-signal and  
automatic train-stop system

Track: Double; tangent; 0.14 percent  
ascending grade southward

Weather: Foggy

Time: About 4:43 a. m.

Casualties: 4 killed; 12 injured

Cause: Failure to control speed of  
following train in accord-  
ance with signal indication

INTERSTATE COMMERCE COMMISSION

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INVESTIGATION NO. 2714

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

THE ATLANTIC COAST LINE RAILROAD COMPANY

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August 27, 1943.

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Accident at Milan, N. C., on July 24, 1943, caused by  
failure to control speed of following train in  
accordance with signal indication.

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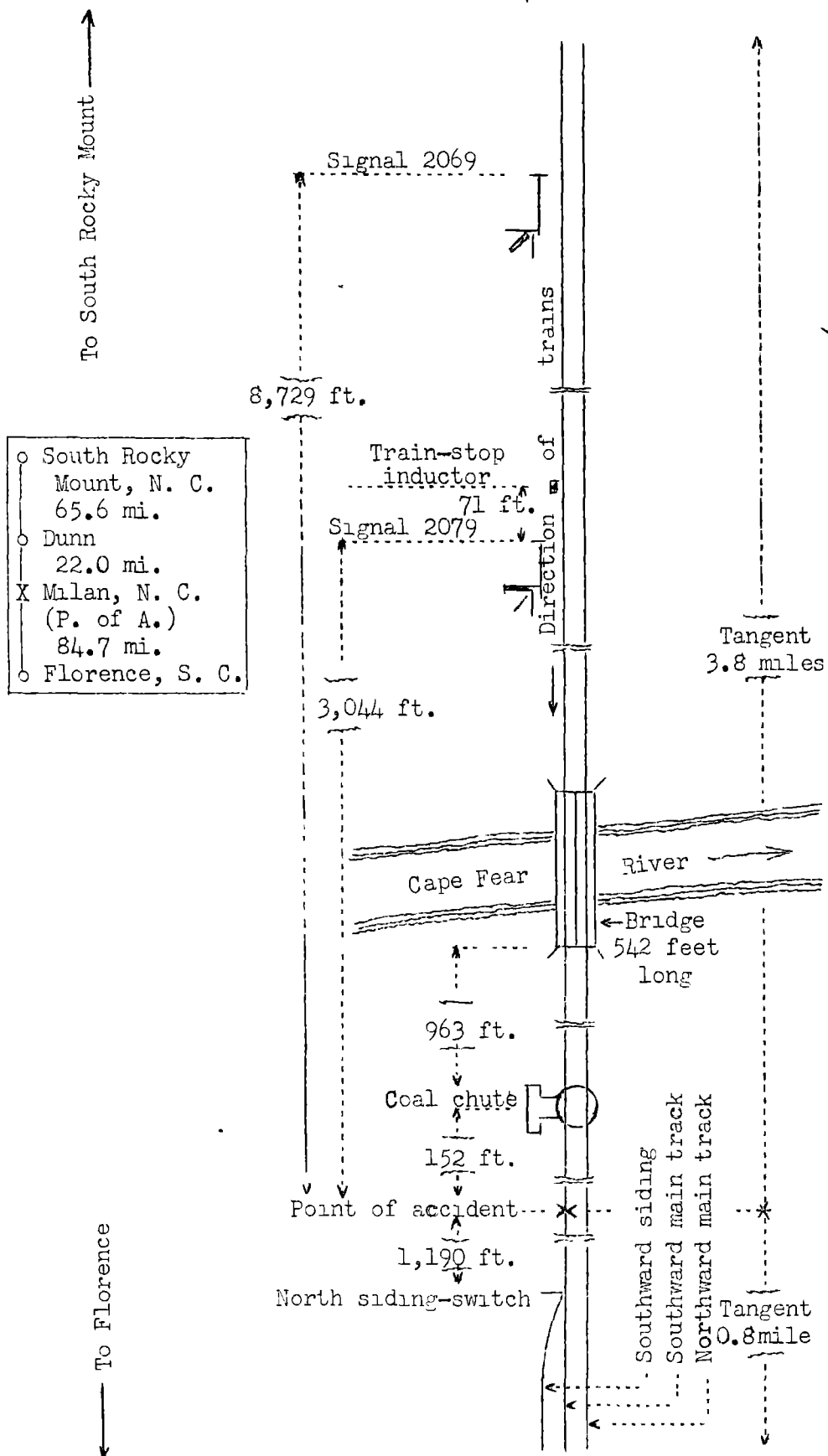
REPORT OF THE COMMISSION<sup>1</sup>

PATTERSON, Commissioner:

On July 24, 1943, there was a rear-end collision between two passenger trains on the Atlantic Coast Line Railroad at Milan, N. C., which resulted in the death of four passengers, and the injury of seven passengers, two dining-car employees and three train-service employees.

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<sup>1</sup>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.



Inv-2714  
Atlantic Coast Line Railroad  
Milan, N. C.  
July 20, 1943

Location of Accident and Method of Operation

This accident occurred on that part of the Richmond District extending between South Rocky Mount, N. C., and Florence, S. C., 172.3 miles. In the vicinity of the point of accident this was a double-track line over which trains moving with the current of traffic were operated by timetable, train orders, and an automatic block-signal and automatic train-stop system. At Milan the southward siding paralleled the southward main track on the west. The accident occurred on the southward main track at a point 1,190 feet north of, the north switch of the southward siding. As the vicinity was approached from the north the track was tangent 3.8 miles to the point of accident and 0.8 mile beyond. The grade for south-bound trains was, successively, descending 0.10 percent 600 feet, level 2,300 feet, descending 0.23 percent 800 feet, then it was ascending 0.14 percent 200 feet to the point of accident and a considerable distance beyond.

At Milan a coaling station was located 1,342 feet north of the north switch of the southward siding. The south abutment of a steel truss-span bridge 542 feet in length was located 963 feet north of the coaling station.

Automatic signals 2069 and 2079, which governed south-bound movements on the southward main track, were located, respectively, 8,729 and 3,044 feet north of the point of accident. These signals were of the one-arm, three-indication, upper-quadrant, semaphore type, and were approach-lighted. The involved aspects and corresponding indications and names of these signals were as follows:

<u>Aspect</u>	<u>Indication</u>	<u>Name</u>
45 degrees, yellow	Proceed at a speed to not exceed one-half the maximum authorized, prepared to stop at the next signal	Approach signal
Horizontal, red	Stop-then proceed in accordance with Rule 509	Stop and proceed signal

The automatic train-stop system was of the intermittent-inductive type. Engines were provided with acknowledging devices. A train-stop inductor was located 71 feet north of signal 2079.

## DEFINITIONS

\* \* \*

Restricted Speed.--Proceed prepared to stop short of train, obstruction, or anything that may require the speed of a train to be reduced.

\* \* \*

Operating rules read in part as follows:

11. A fusee on or near the track burning red must not be passed until burned out, except in territory governed by automatic signals where train will come to a full stop and proceed at restricted speed to the next automatic signal.

35. The following signals will be used by flagmen:

\* \* \*

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

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.

\* \* \*

When a train is moving under circumstances in which it may be overtaken by another train, the flagman must take such action as may be necessary to insure full protection. By night \* \* \* lighted fuseses must be thrown off at proper intervals.

\* \* \*

99 (a). Block \* \* \* signals will not relieve flagmen from observance of Rule 99.

509. \* \* \*

When a train is stopped by a Stop-and-Proceed-signal it may proceed:

\* \* \*

B. On two or more tracks at once, at restricted speed expecting to find a train in the block, broken rail, obstruction or switch not properly set.

#### FIREMEN

1004. They will assist in keeping a lookout on the track, and, if they see any obstruction or signals, must instantly give the Engineman notice.  
\* \* \*

The maximum authorized speed for the preceding train was 70 miles per hour, and for the following train 90 miles per hour. In the vicinity of the coaling station the maximum authorized speed for all passenger trains was 30 miles per hour.

#### Description of Accident

No. 1, a south-bound first-class passenger train, consisted of engines 1549 and 1526, two passenger-baggage cars, four coaches, one tavern car, one coach, two dining cars, three coaches and one observation-tavern car, in the order named. The eighth and the tenth cars were of standard all-steel construction, and the remainder were of lightweight stainless steel construction. After an air-brake test was made this train departed from South Rocky Mount, 87.6 miles north of Milan, at 2:57 a. m., according to the dispatcher's record of movement of trains, 2 hours 32 minutes late, passed Dunn, 22 miles north of Milan and the last open office, at 4:06 a. m., 2 hours 33 minutes late, and stopped at the coaling station at Milan about 4:26 a. m. About 17 minutes later, while this train was entering the southward siding at an estimated speed of 2 to 5 miles per hour, the rear end was struck by No. 7.

No. 7, a south-bound first-class passenger train, consisted of Diesel-electric units 501, 751 and 504, one passenger-baggage car, two coaches, five Pullman sleeping cars, one dining car, seven Pullman sleeping cars, one coach and one dining-car, in the order named. The seventeenth car was of steel-underframe construction, and the remainder were of all-steel construction. After an air-brake test was made this train departed from South Rocky Mount at 3:19 a. m., according to the dispatcher's record of movement of trains, 2 hours 44 minutes late, passed Dunn at 4:19 a. m., 2 hours 36

minutes late, passed signal 2069, which displayed approach, stopped at signal 2079, which displayed stop-and-proceed, then about 4 minutes later proceeded, and while moving at a speed of 24 miles per hour, as indicated by the tape of the speed recorder with which Diesel-electric unit 501 was equipped, it collided with the rear end of No. 1.

Diesel-electric unit 501 was badly damaged, and Diesel-electric units 751 and 504 were slightly damaged. The rear car of No. 1 was telescoped a distance of about 37 feet and was practically demolished. The car next ahead of it was slightly damaged.

There was a light fog at the time of the accident, which occurred about 4:43 a. m.

The flagman of No. 1 and the engineer and the fireman of No. 7 were injured.

#### Discussion

The rules governing operation on this line provide that when a train stops under circumstances in which it may be overtaken by another train the flagman must go back immediately a sufficient distance to insure full protection, place two torpedoes and, when necessary, in addition, display lighted fusees. When a train is moving under circumstances in which it may be overtaken by another train the flagman must take such action as may be necessary to insure full protection. During the night, lighted fusees must be thrown off at proper intervals. Under the rules governing operation in automatic block-signal territory, a stop-and-proceed indication requires a train to stop at the signal, then it may proceed prepared to stop short of a train or an obstruction.

No. 1 stopped at the coaling station at Milan about 4:26 a. m. About 17 minutes later, after the engines had been supplied with coal and the train had moved southward about 1,600 feet and was entering the siding, the rear end was struck by No. 7. No. 7 was moving under a stop-and-proceed indication, which required that train to be operated prepared to stop short of a train or an obstruction.

Soon after No. 1 stopped at the coaling station, the engineer was instructed orally on the telephone by the train dispatcher that No. 1 was to enter the siding at Milan to let No. 7 pass. The conductor and the flagman of No. 1 and the crew of No. 7 had no knowledge of these instructions. The rear car of No. 1 was standing on the bridge north of the



coaling station. There was an open space between the southward and the northward tracks on this bridge, and a person could not step from one track to the other. The only walkways provided across the bridge were constructed of two narrow planks placed midway between the rails of each track. The rear car was of the non-vestibule type and was provided with a door at the rear end. Because of these conditions, the flagman could not proceed to the rear to furnish flag protection. He displayed a lighted fusee from the rear door of the rear car until his train was ready to depart, and then threw the fusee in the river, as it was unsafe to drop it on the bridge structure. As No. 1 started to move southward from the coaling station, the flagman went forward to the front end of the car next to the rear car to be in position to observe the indication of train-order signals. Then he became aware that his train was stopping to enter the siding, and he immediately dropped a lighted fusee from the vestibule door, but this action was not taken soon enough to prevent the accident. Officials of this carrier stated that they were considering the matter of providing adequate facilities at the bridge in question so that proper flag protection could be furnished for trains stopping on the bridge.

No. 7 stopped at signal 2079 in compliance with a stop-and-proceed indication displayed by that signal. From this location, the lighted fusee displayed by the flagman from the rear car and the red marker lamps on the rear were visible to the engineer of No. 7, who was maintaining a lookout ahead from the control compartment of the engine. No. 7 proceeded about 4 minutes after it stopped at signal 2079. The engineer said that vapor rising from dampened cinders on the track in the vicinity of the coaling station, electric lights burning at several locations on the structures of the coaling station, and fog obscured his view of the track ahead, and the markers of No. 1 appeared to be about one-half mile distant. Soon afterward he became aware that the preceding train was only a short distance ahead, and he immediately moved the brake valve to emergency position. He estimated the speed of his train as 15 miles per hour when the collision occurred, but the tape of the speed recorder indicated the speed as 24 miles per hour. The engineer of No. 7 said that if a lighted fusee had been dropped from the rear of No. 1 as that train was proceeding southward from the coaling station he would have stopped his train at the location of the fusee, and the accident would have been prevented. The fireman of No. 7 said that, in compliance with instructions issued by the road foreman of engines, when his train stopped at signal 2079 he went to the engine compartment to close the shutters to prevent the engines cooling

too rapidly. The fireman was engaged in performing this duty when the accident occurred. The engineer of No. 7 said visual conditions in the vicinity of the coaling station were such that a person on the left side of the control compartment would have had a considerably better view ahead than the engineer. The engineer of No. 7 and several other engineers stated that additional safety would be provided for trains being hauled by Diesel-electric engines if firemen were required to remain in the control compartment to assist in observing signals and conditions ahead.

Cause

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

Dated at Washington, D. C., this twenty-seventh day of August, 1943.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. EASTEL,

Secretary.