INTERSTATE COMMERCE COMMISSION

WASHINGTON

INVESTIGATION NO. 2593

THE SEABOARD AIR LINE RAILWAY COMPANY

REPORT IN RE ACCIDENT

AT MONCURE, N. C., ON

JUNE 8, 1942

SUMMARY

Railroad:	Seaboard Air Line	
Date:	June 8, 1942	
Location:	Moncure, N. C.	
Kind of accident:	Rear-end collision	
Trains involved:	Freight	: Freight
Train numbers:	Extra 363 North	: Third 72
Engine numbers:	363	: 2509
Consist:	46 cars, caboose	: 66 cars, caboose
Speed:	Standing	: 20-35 m. p. h.
Operation:	Timetable, train orders and automatic block-signal system	
Track:	Single; tangent; level	
Weather:	Clear	
Time:	9:50 a. m.	
Casualties:	3 injured	
Cause:	Accident caused by failure to provide adequate flag protection for preceding train and by failure properly to control speed of following train in accordance with signal indications	

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 2593

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

THE SEABOARD AIR LINE RAILWAY COMPANY

July 31, 1942.

Accident at Moncure, N. C., on June 8, 1942, caused by failure to provide adequate flag protection for preceding train and by failure properly to control speed of following train in accordance with signal indications.

REPORT OF THE COMMISSION[1]

PATTERSON, Commissioner:

On June 8, 1942, there was a rear-end collision between two freight trains on the Seaboard Air Line Railway at Moncure, N. C., which resulted in the injury of three employees.

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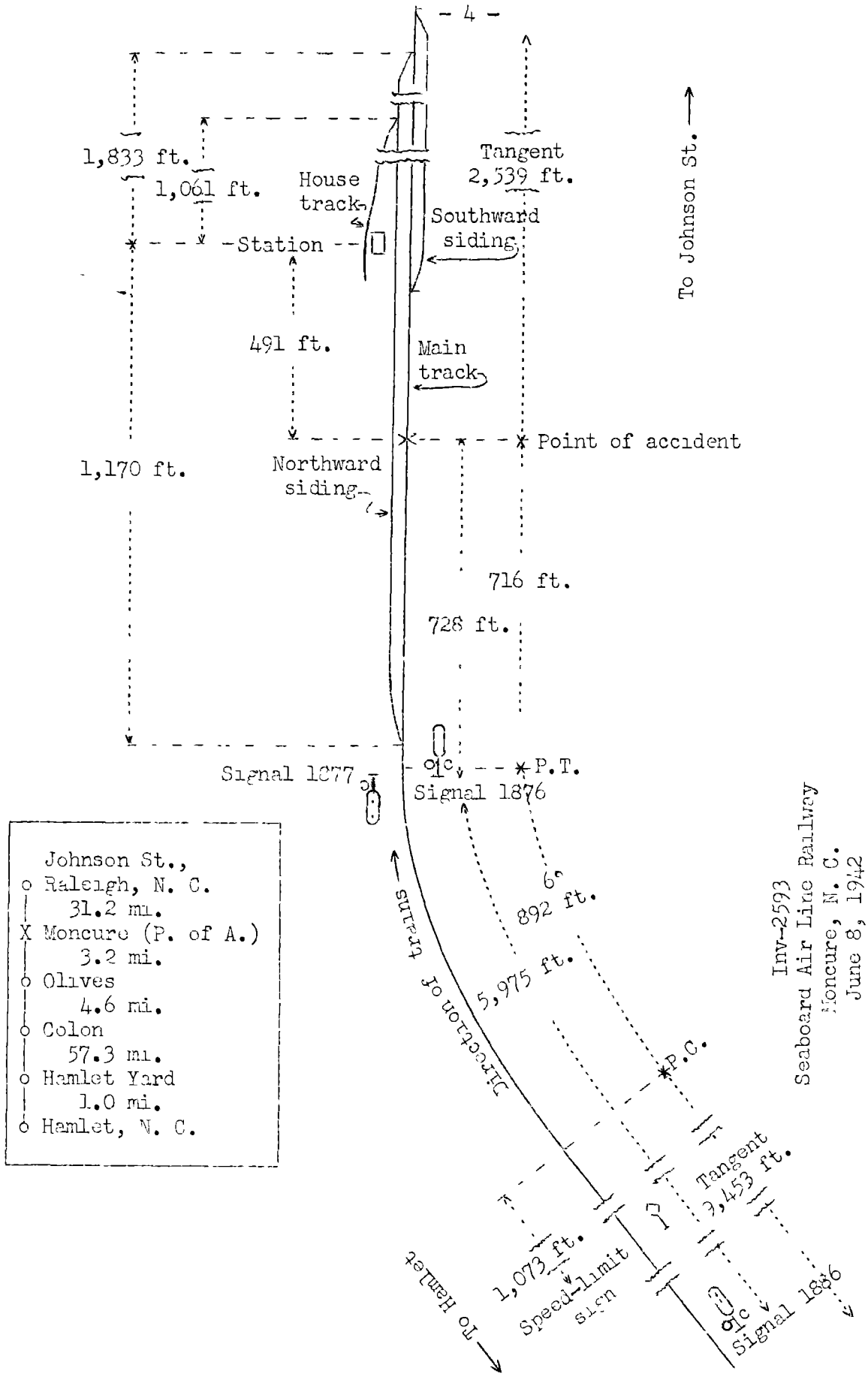
[1]Under authority of section 17 (2) of the Interstate Commerce Act the above-entitled proceeding was referred by the Commission to Commissioner Patterson for consideration and disposition.



Inv-2593
Seaboard Air Line Railway
Moncure, N. C.
June 8, 1942

Location of Accident and Method of Operation

This accident occurred on that part of the North Carolina Division designated as the Raleigh Sub-Division, which extends between Hamlet and Johnson St., Raleigh, N. C., a distance of 97.3 miles. In the vicinity of the point of accident this is a single-track line over which trains are operated by timetable, train orders and an automatic block-signal system. At Moncure a siding, designated as the northward siding, parallels the main track on the west. The north and south switches of this siding are, respectively, 1,833 feet north and 1,170 feet south of the station. A house track connects with the northward siding at a point 1,061 feet north of the station. The accident occurred on the main track at a point 491 feet south of the station at Moncure. As the point of accident is approached from the south there are, in succession, a tangent 1.79 miles in length, a 6° curve to the right 892 feet, and a tangent 715 feet to the point of accident and 2,539 feet beyond. The grade for north-bound trains is 0.30 percent descending a distance of 2,959 feet and then is level 3,048 feet to the point of accident.

The automatic-block system is of the absolute-permissive principle and has double-location signals near the ends of sidings. Signals 1886 and 1876, which govern north-bound movements, are located, respectively, 6,703 and 728 feet south of the point of accident. These signals are of the 3-indication, color-light type, and are continuously lighted. The aspects and corresponding indications and names of these signals are as follows:

Aspect	Indication	Name
Green	Proceed	Proceed Signal
Yellow	Approach next signal prepared to stop	Approach Signal
Red over lunar white, staggered	Stop, then proceed	Stop and Proceed Signal

Operating rules read in part as follows:

14. ENGINE AND MOTOR WHISTLE SIGNALS.

* * *

(c) — — — — Flagman may return from south or west, as prescribed by Rule 99.

35. The following signals will be used by flagmen:

Day Signals--A red flag.
Torpedoes and Fusees.

* * *

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, (not less than one-half mile), placing one torpedo on the rail, on the engineman's side; he must then continue to go back to a point not less than three-quarters of a mile (or further on descending grades or where the view is obscured) from the rear of his train, placing two torpedoes on the rail (100 feet apart), when he may return to the point where the first torpedo was placed, where he must remain until the approaching train has been stopped, or he is recalled by the whistle of his engine.

* * *

When signal 14 (d) * * * has been given to the flagman, and the safety of the train will permit, he may return, taking up the one torpedo, but when the conditions require he will leave a lighted fuse.

* * *

509. * * *

F. A train passing an Approach Signal must proceed at reduced speed prepared to stop before passing the next signal.

* * *

The maximum authorized speed for freight trains is 40 miles per hour and on the curve immediately south of the point of accident it is 25 miles per hour.

Description of Accident

Extra 363 North, a north-bound freight train, consisted of engine 363, 35 loaded and 12 empty cars and a caboose. After a terminal air-brake test was made this train departed from Hamlet Yard, 65.1 miles south of Moncure, at 6 a. m., according

to the dispatcher's record of movement of trains, passed Colon, 7.8 miles south of Moncure and the last open office, at 9:23 a. m., and stopped at Moncure at 9:35 a. m. to set off a car that had an overheated journal. Soon afterward the train moved backward and stopped with the rear end standing 728 feet north of signal 1876. About 15 minutes later, after the car was set off, the rear end of this train was struck by Third 72.

Third 72, a north-bound second-class freight train, consisted of engine 2509, 66 loaded cars and a caboose. At Hamlet Yard a terminal air-brake test was made and the brakes functioned properly at all points where used en route. This train departed from Hamlet Yard at 6:20 a. m., according to the dispatcher's record of movement of trains, 6 hours 19 minutes late, passed Colon at 9:41 a. m., 7 hours 38 minutes late, passed signal 1886, which displayed approach, passed signal 1876, which displayed stop-and-proceed, and while moving at an estimated speed of 20 to 35 miles per hour it collided with the rear end of Extra 363 North.

Because of the track curvature and of trees on the inside of the curve, the view from the right side of a north-bound engine of a caboose standing at the point of accident is restricted to a distance of 1,237 feet.

The caboose of Extra 363 and the rear four cars were derailed and demolished. The rear truck of the fifth car ahead of the caboose was derailed, and the body of this car was damaged. Engine 2509 was derailed to the east and stopped 223 feet north of the point of accident, at an angle of 45 degrees to the track and with its front end at the foot of a 12-foot fill. The smokebox, the No. 1 engine frame, the articulating castings, the No. 1 exhaust steam pipes, the No. 2 admission steam pipe, the deck castings, three of the valve chambers and one cylinder were badly damaged. The tender was considerably damaged but remained upright on the roadbed. The first two cars of Third 72 were derailed to the east and stopped, badly damaged, down the embankment. The third car was derailed but remained upright on the roadbed and was slightly damaged. The fourth and sixth cars were damaged and the fifth car was destroyed. The wreckage was contained within a distance of 240 feet.

The weather was clear at the time of the accident, which occurred about 9:50 a. m.

The employees injured were the conductor of Extra 363 North, and the engineer and the fireman of Third 72.

Discussion

The rules governing operation on the line involved provide that 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. Under the rules governing operation in automatic block-signal territory an approach indication requires the speed of a train to be reduced and to be so controlled that the train can stop short of the next signal. All employees involved understood these requirements.

Extra 363 North was approaching Moncure at a speed of about 25 miles per hour when the conductor observed on the eighth car an overheated journal and opened the conductor's emergency valve. The train stopped at 9:35 a. m. with the rear end standing about 1,200 feet north of signal 1876. Immediately afterward, in order to place the eighth car on the house track, the train moved backward and stopped with the caboose standing 728 feet north of signal 1876. About 9:50 a. m. the rear end of this train was struck by Third 72.

As Third 72 was approaching signal 1886, located 6,703 feet south of the point where the accident occurred, the speed was 40 or 45 miles per hour and the enginemen and the front brakeman were maintaining a lookout ahead. The brake-pipe and the main-reservoir pressures were, respectively, 75 pounds and 110 pounds. There was no condition of the engine that obscured their vision. According to the statement of the engineer, signal 1886 displayed approach and all members of the crew on the engine called the indication. The engineer made a brake-pipe reduction of 10 pounds. When the engine reached a point 1,400 feet south of signal 1876, the speed was 25 miles per hour, and he released the brakes. Because of the track curvature to the right and trees on the inside of the curve, the view ahead was considerably restricted. When the engine was about 850 feet south of signal 1876, the engineer started to make a service brake-pipe reduction, but, observing simultaneously that signal 1876 displayed a red aspect, the rear end of Extra 363 which was standing 728 feet north of the signal, and that the flagman and the conductor were giving stop signals, he immediately moved the brake valve to emergency position and opened the sander valve, but the distance was insufficient for stopping short of the rear end of Extra 363. The engineer said that the speed was about 20 miles per hour when he jumped off just before the collision occurred. He was not certain that normal brake-pipe pressure had been restored before he moved the brake valve to emergency position or that the full benefit of the emergency application was obtained. According to the statement of the front brakeman of Third 72, the emergency application was made at a point about 800 feet south of signal 1876. The flagman of Third 72 said that his train moved about 450 feet

from the time the brakes were applied in emergency to the time the collision occurred.

All members of the crew of Third 72 understood that an approach indication requires the speed of a train to be so controlled that the train can be stopped short of the next signal. The engineer said that he observed smoke above the tops of the trees but he did not expect a preceding train to be standing at Moncure. In instances when the north siding-switch at Moncure is open to admit a south-bound train to the siding, he has observed that both signal 1886 and signal 1876 display approach. In this instance, he thought Second 85, a section of a second-class south-bound schedule and moving in the inferior direction, was entering the siding at Moncure to clear for his train. If Third 72 had been operated in accordance with the restrictive indication of signal 1886, it would have been stopped short of signal 1876, and this accident would have been prevented.

Under the rules, Extra 363 North was required to provide flag protection when it stopped at Moncure. The flagman of Extra 363 said that when his train stopped the conductor instructed him to observe signal 1877, located opposite signal 1876 and governing south-bound movements. If this signal changed to display a red aspect, which would indicate the approach of a following train, the flagman was to proceed toward the rear to provide flag protection. The flagman said he would have complied with the provisions of the flagging rule if the conductor had not instructed him to be governed by the signal indication. The conductor said that in order to avoid excessive delay to his train he had instructed the flagman to observe signal 1877 and not to go back unless the signal indicated the approach of a following train. Both the conductor and the flagman understood that automatic-signal indications cannot be used as a substitute for adequate flag protection; however, the engineer of Extra 363 said that flagmen depend upon automatic signals as a substitute for flag protection and that more adequate flag protection is provided in non-automatic-signal territory. When engine 363 was returning to the train after placing the car on the house track, the engineer sounded the engine-whistle signal for his flagman to return from the south, and the flagman gave a proceed signal; however, since the train had not been recoupled there was some delay. The engineer said that to avoid excessive delay it is customary to recall the flagman before a train is recoupled and in some instances 4 or 5 minutes elapse after the flagman is recalled before a train proceeds. He has never been criticized by supervisory officials for following this practice. The flagman said that the first he was aware of the approach of Third 72 was when he heard the engine whistle sounded south of the curve. He immediately started back to flag Third 72 with a lighted red fusee, but had reached a point only about 550 feet to the rear

of his train when Third 72 passed him at a speed of about 35 miles per hour. The speed was not materially reduced at the time of the collision. The conductor said that, when Third 72 was first observed, the flagman and he were at the rear of the caboose and both ran toward Third 72 in an attempt to flag that train. From the time that Extra 363 stopped at Moncure until the time the collision occurred the flagman had about 15 minutes in which to provide flag protection. During this period he could have proceeded the distance required by the rules, and undoubtedly he would have been able to provide adequate flag protection. The engineer of Third 72 said that if proper flag protection had been provided he could have stopped his train short of Extra 363.

The investigation disclosed that in the past the employees involved had observed the rules in a manner similar to that in the instant case. Although it is not directly involved in this accident, Extra 363 moved backward at Moncure a distance of about 500 feet without flag protection. The failure to obey one or more operating rules for a considerable period, as was disclosed here, is a result of the lack of proper supervision.

Cause

It is found that this accident was caused by failure to provide adequate flag protection for the preceding train and by failure properly to control the speed of the following train in accordance with signal indications.

Dated at Washington, D. C., this thirty-first day of July, 1942.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,
Secretary.