

INTERSTATE COMMERCE COMMISSION  
WASHINGTON

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INVESTIGATION NO. 2563  
THE KANSAS CITY SOUTHERN RAILWAY COMPANY  
REPORT IN RE ACCIDENT  
AT JOPLIN, MO., ON  
JANUARY 19, 1942

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## SUMMARY

Railroad: Kansas City Southern

Date: January 19, 1942

Location: Joplin, Mo.

Kind of accident: Rear-end collision

Trains involved: K. C. S. freight : M. & A. freight

Train numbers: Extra 762 North : 212

Engine numbers: 762 : 50

Consist: 97 cars, cabooses : 15 cars, cabooses

Speed: Standing : 12-20 m. p. h.

Operation: Timetable and train orders

Track: Single; 1° right curve; 1.162  
percent descending grade northward

Weather: Clear

Time: About 9:15 p. m.

Casualties: 1 killed; 3 injured

Cause: Accident caused by failure to provide  
flag protection for preceding train

Recommendation: It is recommended that the Kansas City  
Southern Railway Company establish  
an adequate block system on the line  
involved in this accident

INTERSTATE COMMERCE COMMISSION

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INVESTIGATION NO. 2563

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

THE KANSAS CITY SOUTHERN RAILWAY COMPANY

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March 7, 1942.

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Accident at Joplin, Mo., on January 19, 1942, caused by  
failure to provide flag protection for preceding  
train.

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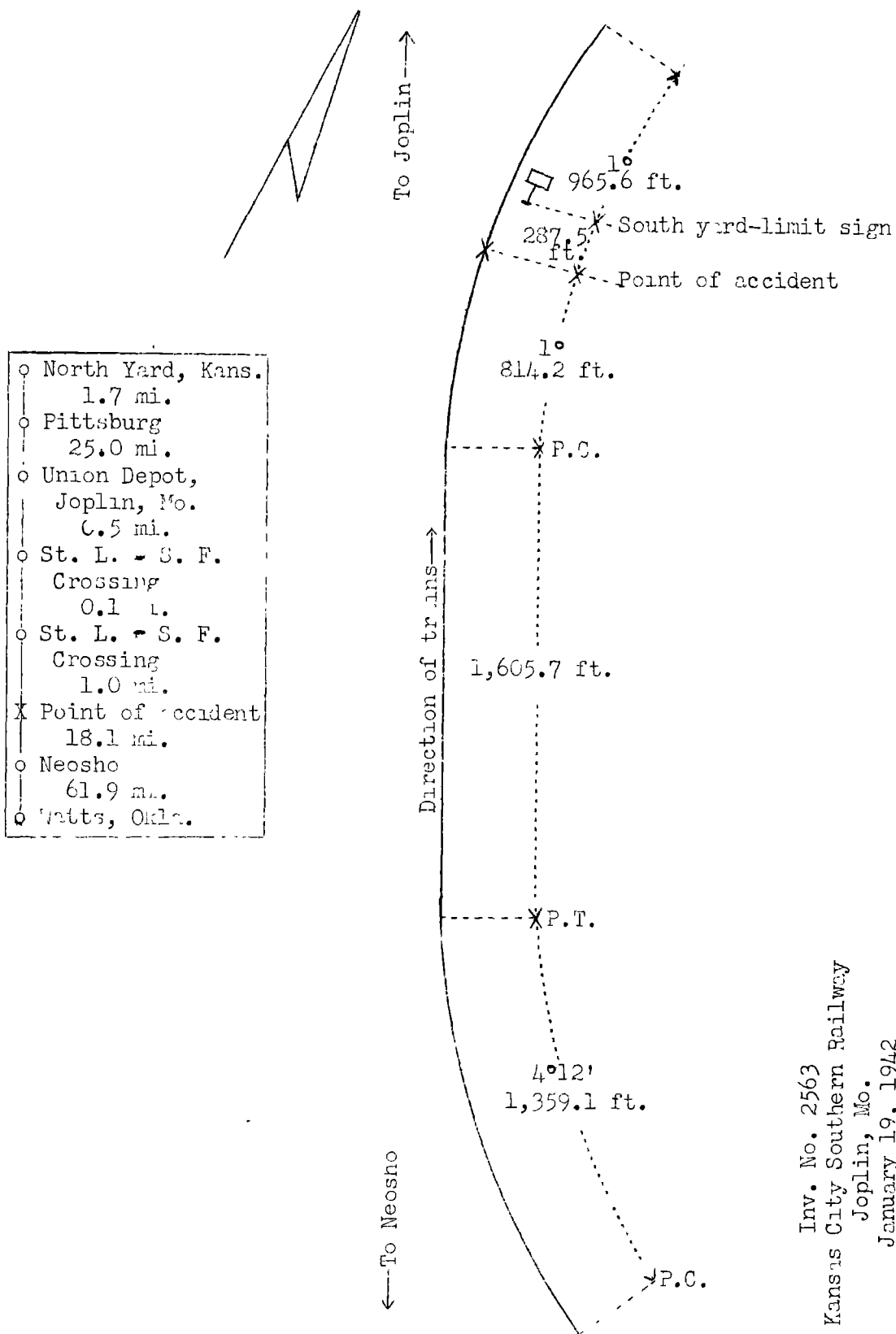
REPORT OF THE COMMISSION<sup>1</sup>

PATTERSON, Commissioner:

On January 19, 1942, there was a rear-end collision between a Kansas City Southern Railway freight train and a Missouri & Arkansas Railway freight train on the line of the Kansas City Southern Railway at Joplin, Mo., which resulted in the death of one employee and the injury of three 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.



- North Yard, Kans. 1.7 mi.
- Pittsburg 25.0 mi.
- Union Depot, Joplin, Mo. 6.5 mi.
- St. L. - S. F. Crossing 0.1 mi.
- St. L. - S. F. Crossing 1.0 mi.
- X Point of accident 18.1 mi.
- Neosho 61.9 mi.
- Watts, Okla.

Inv. No. 2563  
 Kansas City Southern Railway  
 Joplin, Mo.  
 January 19, 1942

Location of Accident and Method of Operation

Trains of the Missouri & Arkansas Railway, hereinafter referred to as the M. & A., are operated over the Kansas City Southern Railway, hereinafter referred to as the K. C. S., between Neosho and Joplin, Mo., a distance of 19.7 miles. This accident occurred on that part of the Northern Division designated as the Second District, which extends between Watts, Okla., and North Yard, Pittsburg, Kans., a distance of 108.3 miles. In the vicinity of the point of accident this is a single-track line over which trains are operated by timetable and train orders. There is no block system in use. The accident occurred at a point 1.6 miles south of the station at Joplin. As the point of accident is approached from the south there are, in succession, a tangent 5,004 feet in length, a 4°12' curve to the right 1,359.1 feet, a tangent 1,605.7 feet, a 1° curve to the right 811.2 feet to the point of accident and 965.6 feet beyond. The grade for north-bound trains varies between 0.414 percent and 1.162 percent descending a distance of 2,250 feet to the point of accident, and is 1.162 percent at the point of accident.

Operating rules read in part as follows:

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 a sufficient distance to insure full protection.

\* \* \*

Should the speed of a train be reduced or its rear endangered, making it necessary to check a following train before a flagman can get back, lighted fusees shall be thrown to the track at intervals.

\* \* \*

In the vicinity of the point of accident the maximum authorized speed for all trains is 15 miles per hour.

The south yard-limit sign is 287.5 feet north of the point of accident.

### Description of Accident

Extra 762 North, a north-bound K. C. S. freight train, consisted of engine 762, 33 loaded and 64 empty cars and a caboose. This train departed from Neosho, Mo., 19.7 miles south of Joplin and the last open office, at 8:15 p. m., according to the dispatcher's record of movement of trains, and stopped at the St. L.-S. F. crossing, located 0.6 mile south of the station at Joplin, at 9:12 p. m. The caboose stood 287.5 feet south of the south yard-limit sign. About 3 minutes later the caboose was struck by M. & A. No. 212.

No. 212, a north-bound third-class M. & A. freight train, consisted of engine 50, 15 loaded cars and a caboose. A terminal air-brake test was made at Harrison, Ark., 126.33 miles south of Joplin. The brakes were used to control the speed of the train at various points en route and they functioned properly. This train entered the K. C. S. track at Neosho and departed from that point at 8:45 p. m., according to the dispatcher's record of movement of trains, 4 hours 15 minutes late, and while moving at an estimated speed of 12 to 20 miles per hour it collided with the rear end of Extra 762 North.

The caboose of Extra 762 was demolished. The first and second cars ahead of the caboose were derailed and badly damaged. Engine 50, of No. 212, was derailed to the right and stopped upright, at an angle of 45 degrees to the track, with its front end 93 feet beyond the point of collision. The smokebox was demolished. The front truck of the tender was derailed to the left but the tender remained upright.

The weather was clear at the time of the accident, which occurred about 9:15 p. m.

The employee killed was the conductor of the K. C. S. train. The employees injured were the engineer, the fireman and the conductor of the M. & A. train.

### Data

During the 30-day period preceding the day of the accident, the average daily movement over the territory involved was 17.4 trains.

### Discussion

The rules governing operation on the line involved provide that when the speed of a train is reduced and it is necessary to protect against a following train, lighted fuseses must be thrown off at intervals. 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. The surviving members of both crews involved understood these requirements.

According to the statement of the engineer of Extra 762 North, the speed of his train was reduced to about 8 miles per hour throughout a distance of about 4,400 feet between the south yard-limit sign and the point where his engine stopped south of the St. Louis-San Francisco Railway crossing at Joplin. After the train stopped, the caboose stood 287.5 feet south of the south yard-limit sign. About 3 minutes afterward the rear end of this train was struck by No. 212. Because of switching service to be performed at Joplin, the flagman was at the head end to assist in this work. During the time that he was absent from the rear end the conductor, who was alone, was required to assume the flagman's duties. During the time that Extra 762 was proceeding at reduced speed, the conductor was required to drop fuseses at intervals. After the train stopped, he was required to proceed to the rear and to provide flag protection. At the time of the accident the conductor was in the caboose. Since he was killed in the accident, it could not be determined why flag protection was not provided. Had flag protection been provided, undoubtedly this accident would have been averted.

According to the statement of the engineer of No. 212, as his train was approaching the point where the accident occurred the speed was about 25 miles per hour, the headlight was lighted brightly, the throttle was in drifting position, and the fireman and he were maintaining a lookout ahead. At a point about 1,800 feet south of the point where the accident occurred the engineer made a 6-pound brake-pipe reduction. The brakes remained applied and the speed was gradually reduced. His train was moving on a 1 degree curve to the right. He did not observe either flagging signals or lighted fuseses. The first he was aware of anything being wrong was when he observed the caboose of Extra 762 about 400 feet distant. He immediately moved the brake valve to emergency position but the distance was not sufficient to stop short of the train ahead. He jumped off about 90 feet south of the point of accident and at that time the speed was reduced to about 12 miles per hour. Other members of the crew of No. 212 variously estimated the speed as 15 to 20 miles per hour at the time of the collision. The engineer said that had flag protection been provided the accident would not have occurred. The fireman said that prior to the

time the engineer applied the brakes in emergency he was unaware of the train ahead. After the brakes were applied in emergency he crossed over to the right side and observed that the markers of the caboose of Extra 762 were lighted, and the collision occurred immediately afterward. Both of the engineers of No. 212 said that the speed of their train was being so controlled that the engine could have been stopped at the yard-limit sign.

On the line involved in this accident trains are operated by timetable and train orders only. Recently the Commission investigated two other accidents which occurred on the line of this carrier in territories on which trains were operated by timetable and train orders only. One of these, which resulted in the injury of 8 persons, was a rear-end collision between a freight train and a passenger train at Shoreline, La., on August 18, 1941. The other, which resulted in the injury of 11 persons, was a side collision between a freight train and a passenger train at Holly, La., on September 28, 1941. The reports of the Commission covering the investigation of these accidents stated that if an adequate block system had been in use on this line these accidents would not have occurred. At the time the report covering the investigation of the accident that occurred at Holly was released, a rule to show cause why the carrier involved should not establish an adequate block-signal system was served on the carrier. In the instant case, if an adequate block system had been in use on the line involved, the accident would not have occurred.

Cause

It is found that this accident was caused by failure to provide flag protection for the preceding train.

Recommendation

The Kansas City Southern Railway Company should establish an adequate block-signal system on the line involved in this accident. A rule to show cause, if any, why it should not do so will be served on said carrier.

Dated at Washington, D. C., this seventh day of March, 1942.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,

Secretary.