

INTERSTATE COMMERCE COMMISSION
WASHINGTON

INVESTIGATION NO. 2936
CHICAGO, SAINT PAUL, MINNEAPOLIS AND OMAHA
RAILWAY COMPANY
REPORT IN RE ACCIDENT
AT WORTHINGTON, MINN., ON
SEPTEMBER 27, 1945

SUMMARY

Railroad: Chicago, Saint Paul, Minneapolis
and Omaha

Date: September 27, 1945

Location: Worthington, Minn.

Kind of accident: Head-end collision

Trains involved: Passenger : Passenger

Train numbers: 209 : 202

Engine numbers: 204-503 : 364-600

Consist: 13 cars : 13 cars

Estimated speed: Standing ; 5 m. p. h.

Operation: Timetable and train orders

Track: Single; tangent; level

Weather: Dense fog

Time: 5:50 a. m.

Casualties: 15 injured

Cause: Failure to obey meet order

Recommendation: That the Chicago, Saint Paul,
Minneapolis and Omaha Railway
Company install an adequate
block system on the line on
which this accident occurred

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 2936

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

CHICAGO, SAINT PAUL, MINNEAPOLIS AND OMAHA
RAILWAY COMPANY

November 13, 1945.

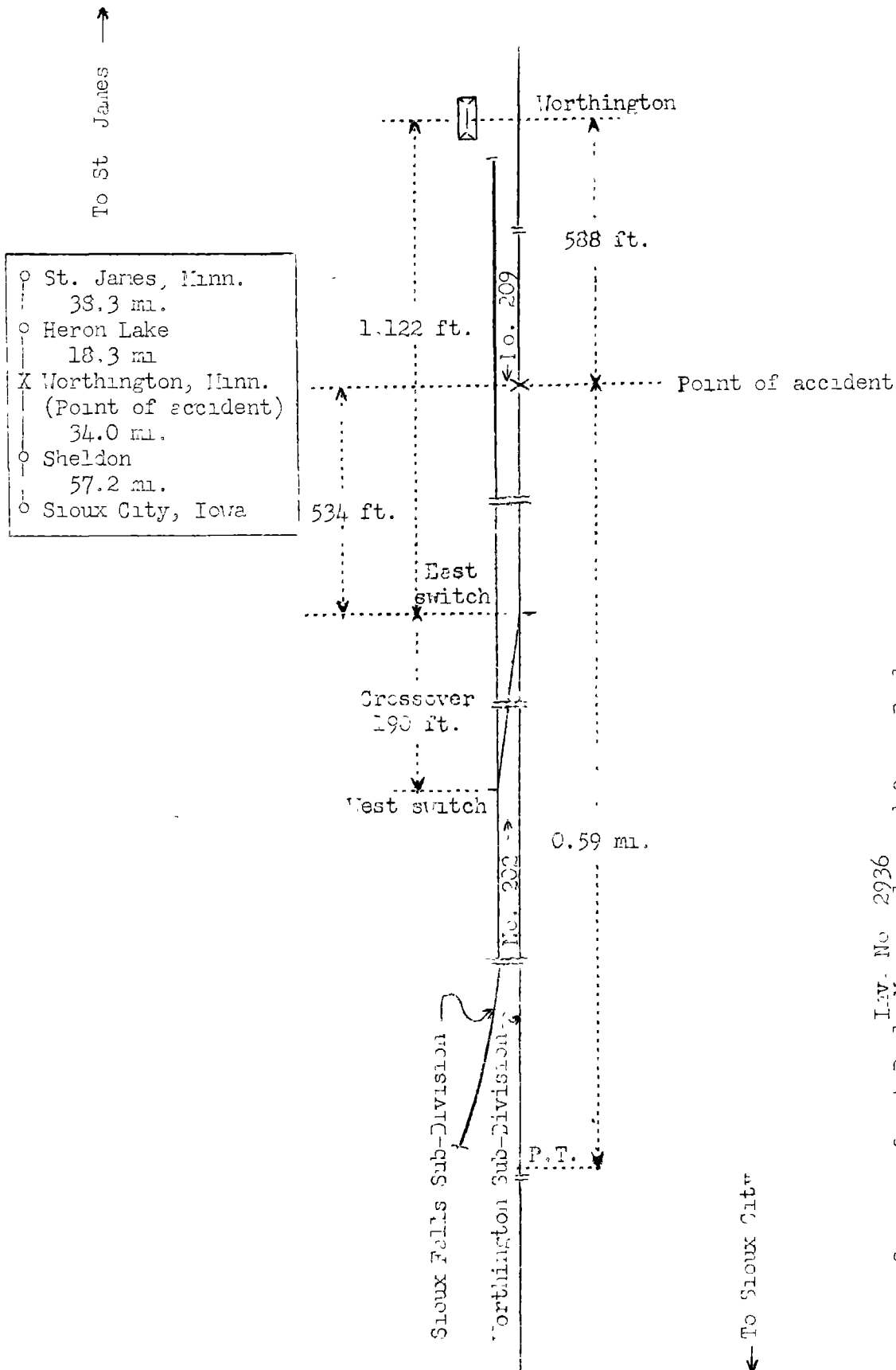
Accident at Worthington, Minn., on September 27, 1945,
caused by failure to obey a meet order.

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REPORT OF THE COMMISSION

PATTERSON, Commissioner:

On September 27, 1945, there was a head-end collision between two passenger trains on the Chicago, Saint Paul, Minneapolis and Omaha Railway at Worthington, Minn., which resulted in the injury of seven passengers, three railway-mail clerks, four dining-car employees and one train-service employee.

¹Under 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.



Irv. No. 2936
 Chicago Great Northern Railway
 Minneapolis and Omaha Railway
 Worthington, Minn.
 September 27, 1945

Location of Accident and Method of Operation

This accident occurred on the Worthington Sub-Division, which extends between Sioux City, Iowa, and St. James, Minn., 147.8 miles, a single-track line in the vicinity of the point of accident, over which trains are operated by timetable and train orders. There is no block system in use. Throughout a distance of about 3.5 miles immediately west of the station at Worthington, 91.2 miles east of Sioux City, a single-track line designated as the Sioux Falls Sub-Division parallels the line of the Worthington Sub-Division on the north. The east switch of a crossover 190 feet long, which connects the line of the Worthington Sub-Division and the line of the Sioux Falls Sub-Division, is 1,122 feet west of the station, and is facing-point for west-bound movements on the line of the Worthington Sub-Division. The accident occurred on the Worthington Sub-Division main track, 588 feet west of the station and 534 feet east of the east crossover-switch. The main track is tangent throughout a distance of 0.59 mile west of this point and a considerable distance eastward. The grade is level at the point of accident.

Operating rules read in part as follows:

13. Engine Whistle Signals.

NOTE.--The signals prescribed are illustrated by "o" for short sounds; "___" for longer sounds.
* * *

SOUND INDICATION

* * *

(n) ___ ___ o Approaching meeting or waiting points. See Rule S-9C.

* * *

16. The headlight will be displayed to the front of every train by night. It must be concealed or extinguished when a train turns out to meet another and has stopped clear of main track,
* * *

16a. * * * headlight will be dimmed: * * *
(b) when standing at stations * * *, except when opposing trains are approaching; * * *

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

* * *

Direction is superior as between trains of the same class.

S-72. * * *

Trains in the direction specified by the timetable are superior to trains of the same class in the opposite direction.

S-38. At meeting point between trains of the same class, the inferior train must clear the main track * * *

* * *

S-90. * * *

Train must stop clear of the switch used by the train to be met in going on the siding.

The engineman of each train will give signal 13(n) at least one mile before reaching a meeting or waiting point. Should the engineman fail to give signal 13(n), the conductor must take immediate action to stop the train.

FORMS OF TRAIN ORDERS.

* * *

S-A.

Fixing Meeting Points for Opposing Trains.

(1) No. 1 meet No. 2 at B.

* * *

Trains receiving these orders will run with respect to each other to the designated points and there meet in the manner prescribed by the rules.

* * *

Time-table special instructions provide that east-bound trains are superior to trains of the same class in the opposite direction.

The maximum authorized speed for passenger trains is 70 miles per hour.

Description of Accident

At Heron Lake, 18.3 miles east of Worthington, the crew of No. 209, a west-bound first-class passenger train, received copies of train order No. 23 reading in part as follows:

No 202 meet No 209 at Worthington * * *
No 209 do work on main line then head
in on Sioux Falls line

No. 209 consisted of engines 204 and 503, one mail car, two baggage cars, three coaches, two baggage cars, two tourist sleeping cars, two Pullman sleeping cars and one express-refrigerator car, in the order named. The thirteenth car was of steel-underframe construction, and the remainder were of all-steel construction. This train departed from Heron Lake at 4:47 a. m., 26 minutes late, and stopped on the main track in the vicinity of the station at Worthington at 5:40 a. m. Soon afterward the first engine was detached and moved westward through the crossover to the main track of the Sioux Falls Sub-Division, and stopped about 600 feet west of the west crossover-switch. About 5:50 a. m. No. 209 was struck by No. 202.

At Sheldon, 34 miles west of Worthington, the crew of No. 202, an east-bound first-class passenger train, received copies of train order No. 23. No. 202 consisted of engines 364 and 600, one baggage car, five coaches, one Pullman sleeping car, one tourist sleeping car, one troop sleeping car, one dining car and three Pullman sleeping cars, in the order named. All cars were of steel construction. This train departed from Sheldon at 5:07 a. m., 1 hour 42 minutes late, passed the clearance point of the east crossover-switch, where it was required to wait unless No. 209 was into clear on the line of the Sioux Falls Sub-Division, ran through the east crossover-switch, which was lined for No. 209 to enter the crossover, and while moving at an estimated speed of 5 miles per hour it collided with No. 209 at a point 534 feet east of the east crossover-switch.

The force of the impact moved No. 209 eastward about 12 feet. None of the equipment of either train was derailed. The front end of the first engine of No. 202 and the front end of the engine of No. 209 were considerably damaged.

There was a dense fog at the time of the accident, which occurred about 5:50 a. m.

The baggageman of No. 209 was 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 21.23 trains.

Discussion

The crew of each train held copies of train order No. 23, which established Worthington as the meeting point between No. 202, an east-bound first-class train, and No. 209, a west-bound first-class train. No. 209 was inferior by direction. The order contained the provision that No. 209 would occupy the main track at Worthington to perform station work and then enter the main track of the Sioux Falls Sub-Division at the east crossover-switch, located 1,122 feet west of the station, to clear for No. 202. Under the rules, No. 202 was required to stop clear of the east crossover-switch unless No. 209 was into clear on the main track of the Sioux Falls Sub-Division.

No. 209 stopped in the vicinity of the station at Worthington about 5:40 a. m. and soon afterward the first engine was detached, because it was not to be used on No. 209 west of Worthington. This engine entered the crossover at the east switch and stopped on the main track of the Sioux Falls Sub-Division about 600 feet west of the west crossover-switch. The switches of the crossover were in position for No. 209 to enter the main track of the Sioux Falls Sub-Division. The switch lamps of the crossover switches were lighted and displayed red to the east and west. Station work had not been completed and No. 209 was standing on the main track of the Worthington Sub-Division, with the front end of the engine 534 feet east of the east crossover-switch, when the engine was struck by No. 202. From the time No. 209 stopped and until the accident occurred, the headlight of the engine at the front of the train and the headlight of the engine on the adjacent track were lighted brightly.

As No. 202 was approaching Worthington the speed was about 60 miles per hour. The headlight of the first engine was lighted brightly, and the enginemen of each engine were maintaining a lookout ahead. The brakes of this train, which were in the charge of the engineer of the first engine, had been tested and had functioned properly en route. The members of the train crew were in various locations throughout the cars of the train. The engineer of the first engine said that, because of dense fog, he was unable to see the usual landmarks in this vicinity. When his engine entered a cut about 1-1/2 miles west of the station he sounded the meeting-point whistle signal, made a service brake-pipe reduction and placed the brake valve in lap position. He thought the speed was being controlled properly and he intended to stop the train short of the clearance point of the east crossover-switch. When the engine passed over a viaduct about 600 feet west of the crossover, the speed was about 15 miles per hour and the engineer made an additional brake-pipe reduction, after which he thought he moved the brake valve back to lap position. He was not aware that his engine had passed the east crossover-switch until he

saw the reflection of a headlight a short distance ahead. Then he moved the brake valve to emergency position and closed the throttle, but the collision occurred before the train could be stopped. The engineer stated that during the time he was operating the brake valve it was necessary for him to have his head outside the cab window in an attempt to ascertain the location of his engine and that he probably had unintentionally moved the brake valve, which moved with little resistance, to holding position instead of to lap position after the second service brake-pipe reduction was made. With the brake valve in holding position, the train-brake system would be recharged and the brakes would be released. He had experienced no difficulty in stopping his train at other points en route, and could not otherwise explain the difficulty encountered in stopping the train short of the east crossover-switch at Worthington. After the accident, there was no condition found that would prevent the proper application of the train brakes. The fireman of the first engine and the fireman of the second engine said that when they saw the reflection of the headlight of the engine on the main track of the Sioux Falls Sub-Division they thought No. 209 was into clear on that track. These employees and the engineer of the second engine said they were not aware that No. 209 was occupying the main track of the Worthington Sub-Division, or that the switches of the crossover were lined for entry to the crossover until they saw the reflection of the headlight of the engine of No. 209 after their engines had passed the east crossover-switch, then the brakes were applied in emergency. The members of the train crew heard the meeting-point signal sounded as their train was approaching Worthington, but they took no action to ascertain if the train to be met was into clear on the main track of the Sioux Falls Sub-Division.

At the time of the accident trains were being operated in this territory by timetable and train orders only. This carrier's book of operating rules contains manual-block rules for the blocking of both opposing and following trains, but these rules were not in effect on the territory in question. If an adequate block system had been in use, the crew of No. 202 would have received definite information that their train was required to stop short of the clearance point, and this accident could have been prevented.

Cause

It is found that this accident was caused by failure to obey a meet order.

Recommendation

It is recommended that the Chicago, Saint Paul, Minneapolis and Omaha Railway Company install an adequate block system on the line on which this accident occurred.

Dated at Washington, D. C., this thirteenth day of November, 1945.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,
Secretary.