

INTERSTATE COMMERCE COMMISSION  
WASHINGTON

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INVESTIGATION NO. 3197  
FORT WORTH AND DENVER CITY RAILWAY COMPANY  
REPORT IN RE ACCIDENT  
NEAR RAYMOND, TEX., ON  
AUGUST 13, 1948

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SUMMARY

Railroad: Fort Worth and Denver City

Date: August 13, 1948

Location: Raymond, Tex.

Kind of accident: Head-end collision

Trains involved: Freight : Freight

Train numbers: Extra 453 North : Extra 460 South

Engine numbers: 453 ; 460

Consists: 44 cars, caboose : 34 cars, caboose

Estimated speeds: 18 m. p. h. : 5 m. p. h.

Operation: Timetable and train orders

Track: Single; 1°04' curve; 1.32 percent ascending grade northward

Weather: Clear

Time: Between 4:25 a. m. and 4:26 a. m.

Casualties: 1 killed; 1 injured

Cause: Inferior train occupying main track on time of opposing superior train

INTERSTATE COMMERCE COMMISSION

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INVESTIGATION NO. 3197

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

FORT WORTH AND DENVER CITY RAILWAY COMPANY

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November 5, 1948

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Accident near Raymond, Tex., on August 13, 1948, caused  
by an inferior train occupying the main track on  
the time of an opposing superior train.

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

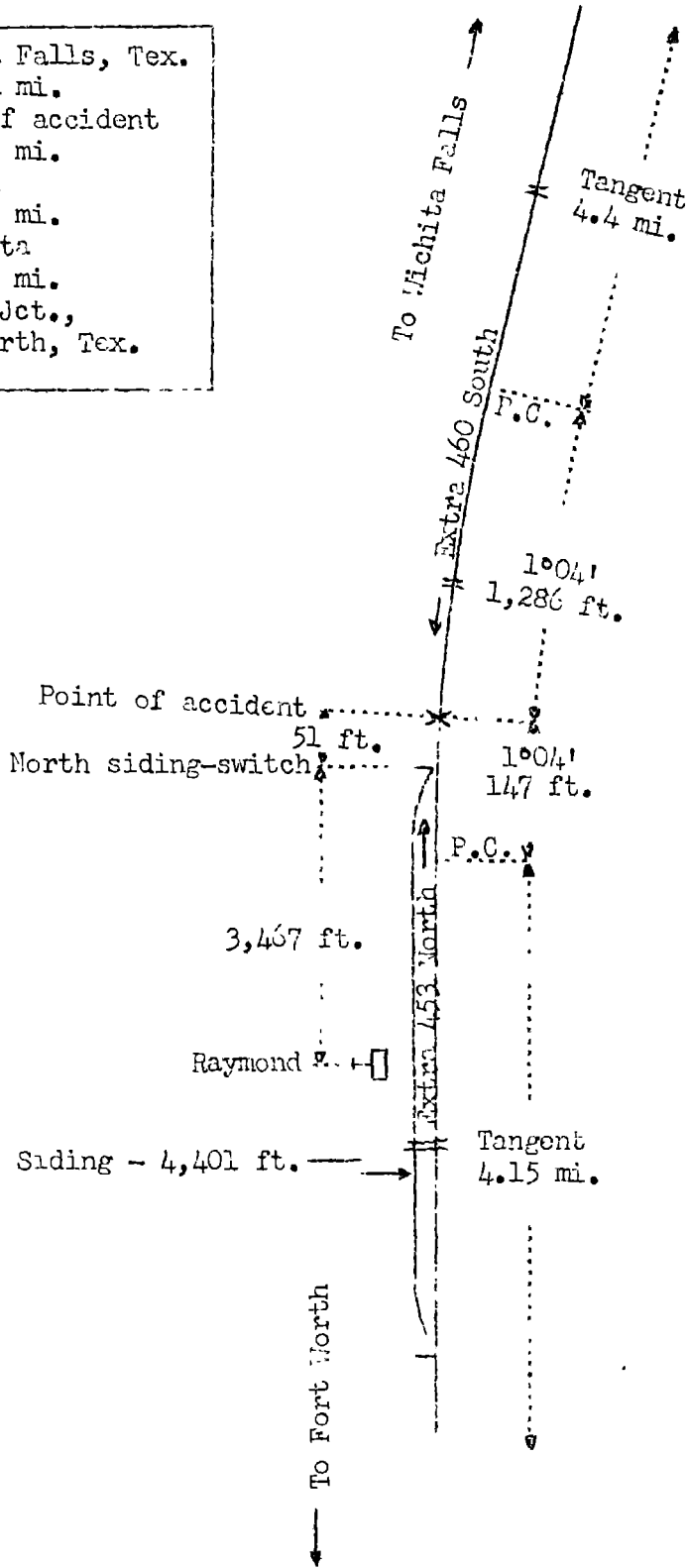
PATTERSON, Commissioner:

On August 13, 1948, there was a head-end collision between two freight trains on the Fort Worth and Denver City Railway near Raymond, Tex., which resulted in the death of one train-service employee, and the injury of one train-service employee.

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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.

- |   |                                   |           |
|---|-----------------------------------|-----------|
| o | Wichita Falls, Tex.               | 4.84 mi.  |
| X | Point of accident                 | 0.66 mi.  |
| o | Raymond                           | 12.80 mi. |
| o | Henrietta                         | 95.70 mi. |
| o | T. & P. Jct.,<br>Fort Worth, Tex. |           |



Inv. No. 3197  
 Fort Worth and Denver City Railway  
 Raymond, Tex.  
 August 13, 1948

Location of Accident and Method of Operation

This accident occurred on that part of the Wichita Falls Division extending between T.& P. Jct., Fort Worth, and Wichita Falls, Tex., 114 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. At Raymond, 108.5 miles north of T.& P. Jct., a siding 4,401 feet in length parallels the main track on the west. The north switch of this siding is 3,467 feet north of the station sign. The accident occurred on the main track at a point 51 feet north of the north siding-switch. From the south there are, in succession, a tangent 4.15 miles in length and a 1°04' curve to the right 147 feet to the point of accident and 1,286 feet northward. From the north there are, in succession, a tangent 4.4 miles in length and the curve on which the accident occurred. At the point of accident the grade is 1.32 percent ascending northward.

This carrier's operating rules read in part as follows:

5. \* \* \*

The time applies to the switch where an inferior train enters the siding; \* \* \*

\* \* \*

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

Right is conferred by train order; class and direction by time-table.

Right is superior to class or direction.

\* \* \*

S-87. An inferior train must keep out of the way of opposing superior trains and failing to clear the main track by the time required by rule must be protected as prescribed by Rule 99.

Extra trains \* \* \* will be governed by train orders with respect to opposing extra trains.

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 fuses.

\* \* \*

The front of the train must be protected in the same way when necessary by the brakeman, or in his absence by the fireman.

\* \* \*

211. \* \* \*

\* \* \*

Enginemen must show train orders to firemen and when practicable to forward trainmen. Conductors must show train orders when practicable to trainmen.

#### FORMS OF TRAIN ORDERS

\* \* \*

#### S-C

##### Giving Right Over an Opposing Train

\* \* \*

(3) Extra 1701 east has right over westward extra trains F to Z.

Opposing extra trains, over which the extra has been given right, must not go beyond the point last named until the extra train has arrived, unless directed by train order to do so. \* \* \*

Examples \* \* \* may be used in conjunction with the foregoing form.

\* \* \*

\* \* \* wait at H until 2 30 p m for extra .....west.

\* \* \*

\* \* \* Extra 1701 must not leave H before the specified time unless the Extra West has arrived, \* \* \*

\* \* \* Extra trains must clear the prescribed leaving time at the designated stations, or at any intermediate stations.

\* \* \*

In this territory the maximum authorized speed for freight trains is 45 miles per hour.

#### Description of Accident

At Henrietta, 12.8 miles south of Raymond, the crew of Extra 453 North, a north-bound freight train, received copies of train order No. 23 reading in part as follows:

\* \* \*

Extra 453 North has right over Extra 460 South  
Henrietta to Wichita Falls wait at  
\* \* \*

Raymond until 4 25 AM for Extra 460 South

Extra 453 North, consisting of engine 453, 44 cars and a caboose, departed from Henrietta, the last open office, at 3:57 a. m., passed the north siding-switch at Raymond, where it was required to wait until 4:25 a. m., unless Extra 460 South was into clear on the siding, and, between 4:25 a. m. and 4:26 a. m., while moving at an estimated speed of 18 miles per hour, it collided with Extra 460 South at a point 51 feet north of the north siding-switch at Raymond.

At Wichita Falls, 5.5 miles north of Raymond, the crew of Extra 460 South, a south-bound freight train, received copies of train order No. 23. This train, consisting of engine 460, 34 cars and a caboose, departed from Wichita Falls, the last open office, about 4:15 a. m. and while moving at an estimated speed of 5 miles per hour it collided with Extra 453 North.

The engines of both trains, the first four cars of Extra 453 North and five cars variously located in the train of Extra 460 South were derailed and badly damaged. Three of these cars were demolished.

The engineer of Extra 460 South was killed. The fireman of Extra 453 North was injured.

The weather was clear at the time of the accident, which occurred between 4:25 a. m. and 4:26 a. m.

During the 30-day period preceding the day of the accident, the average daily movement in the vicinity of the point of accident was 10.6 trains.

#### Discussion

The crew of each train held copies of train order No. 23, which gave Extra 453 North right over Extra 460 South between Henrietta and Wichita Falls, and required Extra 453 North to wait at Raymond until 4:25 a. m. for Extra 460 South. Under the rules, the time specified at Raymond applied at the north switch of the siding at that station. Extra 460 South was required to be into clear at Raymond not later than 4:25 a. m., if it proceeded to that station to meet Extra 453 North, or to provide flag protection. Extra 453 North and Extra 460 South collided between 4:25 a. m. and 4:26 a. m. at a point 51 feet north of the north siding-switch at Raymond.

As Extra 453 North was approaching Raymond the speed was about 40 miles per hour, and the headlight was lighted brightly. The enginemen, and the front brakeman, who was on the engine, were maintaining a lookout ahead. The conductor and the flagman were in the caboose. The members of the crew had compared time, and there was a variation of only a few seconds in their watches. They understood that, under the provisions of train order No. 23, their train was required to remain clear of the north siding-switch at Raymond until 4:25 a. m., unless Extra 460 South was into clear on the siding. The conductor and the flagman consulted their watches when the caboose was about 1 mile south of the south siding-switch and observed the time as 4:24 a. m. The employees on the engine consulted their watches when the engine was in the immediate vicinity of the south siding-switch and observed the time as 4:25 a. m. When the engine was about 800 feet south of the north siding-switch the speed was about 25 miles per hour, and the employees on the engine observed that Extra 460 South was not occupying



the siding. Because of an embankment adjacent to the track on the curve immediately north of the north siding-switch the view of the track ahead was considerably restricted. When the engine was about 300 feet south of the switch the enginemen saw the reflection of the headlight of the opposing train, and the engineer immediately moved the brake valve to emergency position. The speed of Extra 453 North was about 18 miles per hour when the collision occurred. The brakes of this train had been tested and had functioned properly en route. Immediately after the collision occurred the conductor consulted his watch and observed the time as 4:27 a. m.

The crew of Extra 460 South received copies of train order No. 23 at Wichita Falls about 40 minutes prior to the time the accident occurred. They said that they had compared time, and there was a variation of only a few seconds in their watches. The surviving members of the crew, except the flagman, had read train order No. 23, and each understood that his train was required to be into clear at Raymond not later than 4:25 a. m., if it proceeded to that station to meet Extra 453 North, and that flag protection was required against Extra 453 North if Extra 460 South was not clear of the main track by the time specified. There is no siding between Wichita Falls and Raymond. The conductor, who was on the engine, said that about 4:10 a. m. he conferred with the engineer in regard to the requirements of train order No. 23, and he questioned whether sufficient time remained for Extra 460 South to proceed from the yard at Wichita Falls and be into clear at Raymond by the time specified, but the engineer informed the conductor that, in his opinion, sufficient time remained to be into clear at Raymond not later than 4:25 a. m. Extra 460 South entered the main track at the south end of the yard and departed from Wichita Falls about 4:15 a. m. The conductor, the enginemen and the front brakeman were on the engine, and the flagman was in the caboose. The flagman did not receive a copy of train order No. 23, and he was not informed by any other member of the crew of the provisions of the order. The conductor said that the engine was worked extremely hard en route from Wichita Falls to Raymond and that the steam pressure dropped 20 pounds below working pressure. As a result the expected speed was not maintained. When the engine was about 3/4 mile north of the north siding-switch the conductor consulted his watch and observed the time as 4:23 a. m. The conductor said he thought that Extra 453 North might be a few minutes later than the time specified in the order, and consequently no action was taken by any member of the crew on the engine to

stop their train until they saw the reflection of the headlight of Extra 453 North in the vicinity of the north siding-switch. Then the engineer made a service brake-pipe reduction and immediately afterward the conductor opened the emergency valve, located at the rear of the engine cab. The speed of Extra 460 South was about 5 miles per hour when the collision occurred. The brakes of this train had been tested and had functioned properly en route. The conductor looked at his watch immediately after the collision occurred and observed the time as 4:26 a. m.

On the line where this accident occurred, trains are operated by timetable and train orders only. If an adequate block system had been in use, these opposing trains would not have been permitted to occupy the same block simultaneously.

Cause

It is found that this accident was caused by an inferior train occupying the main track on the time of an opposing superior train.

Dated at Washington, D. C., this fifth day of November, 1948.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,  
Secretary.