

INTERSTATE COMMERCE COMMISSION

WASHINGTON

INVESTIGATION NO. 7021

THE COLORADO AND SOUTHERN RAILWAY COMPANY

REPORT IN RE ACCIDENT

NEAR VALSENBURG, COLO., ON

SEPTEMBER 5, 1946

SUMMARY

Railroad: Colorado and Southern
Date: September 5, 1946
Location: Walsenburg, Colo.
Kind of accident: Rear-end collision
Trains involved: D. & R.G.W. : D. & R.G.W.
freight : freight
Train numbers: Extra 1512 North : Extra 3600 North
Engine numbers: 1512 : 3600
Consists: 82 cars, caboose : 34 cars, caboose
Estimated speeds: Standing : 15 m. p. h.
Operation: Timetable and train orders
Track: Double; tangent; 1.00 percent
descending grade northward
Weather: Clear
Time: 2:45 p. m.
Casualties: 1 killed; 3 injured
Cause: Failure to provide adequate
protection for preceding train
Recommendation: That the Colorado and Southern
Railway Company install an ade-
quate block system

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 3021

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

THE COLORADO AND SOUTHERN RAILWAY COMPANY

October 21, 1946

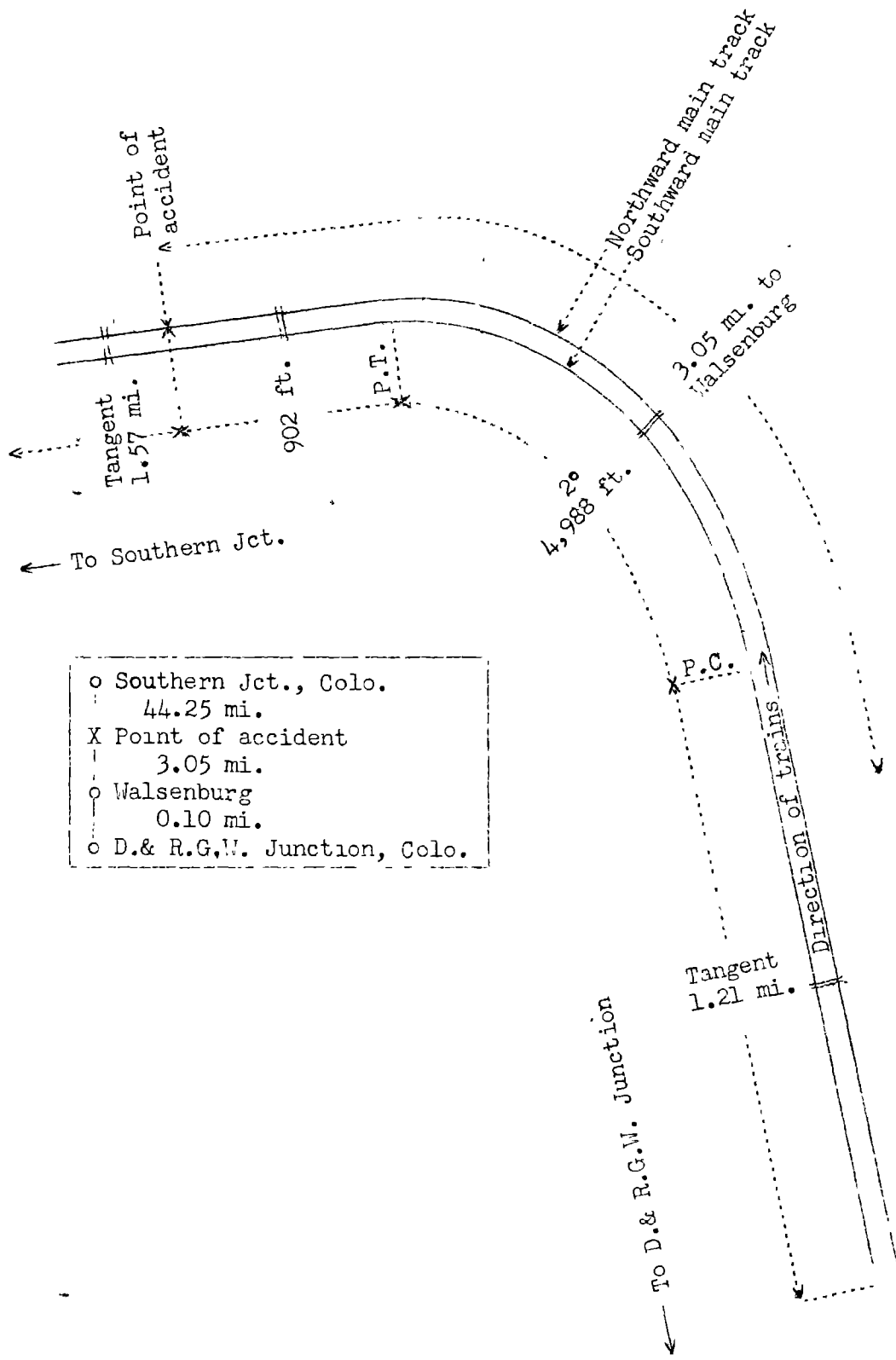
Accident near Walsenburg, Colo., on September 5, 1946,
caused by failure to provide adequate protection
for the preceding train.

REPORT OF THE COMMISSION¹

PATTERSON, Commissioner:

On September 5, 1946, there was a rear-end collision between two Denver and Rio Grande Western Railroad freight trains on the line of the Colorado and Southern Railway near Walsenburg, Colo., which resulted in the death of one employee, and the injury of three employees.

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.



- | | | |
|---|-----------------------------|-----------|
| o | Southern Jct., Colo. | 44.25 mi. |
| X | Point of accident | 3.05 mi. |
| o | Walsenburg | 0.10 mi. |
| o | D. & R.G.W. Junction, Colo. | |

Inv. No. 3021
 Colorado and Southern Railway
 Walsenburg, Colo.
 September 5, 1946

Location of Accident and Method of Operation

This accident occurred on that part of the Southern Division extending between D. & R.G.W. Junction and Southern Jct., Colo., 47.4 miles, a double-track line used jointly by the Colorado and Southern Railway and the Denver and Rio Grande Western Railroad, and operated under the rules of the Colorado and Southern Railway. Trains are operated in this territory by timetable and train orders. There is no block system in use. The accident occurred on the northward main track 3.15 miles north of D. & R.G.W. Junction and 3.05 miles north of Walsenburg. From the south there are, in succession, a tangent 1.21 miles in length, a 2° curve to the left 4,988 feet and a tangent 902 feet to the point of accident and 1.57 miles northward. The grade for north-bound trains varies between 0.15 percent and 1.00 percent descending throughout a distance of 3.09 miles to the point of accident, where it is 1.00 percent.

Operating rules read in part as follows:

DEFINITIONS

* * *

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

* * *

11. A train finding a fusee burning on or near its track must stop and extinguish the fusee, and then proceed at restricted speed.

15. The explosion of two torpedoes is a signal to reduce speed and look out for a train ahead or obstruction. * * *

* * *

35. The following signals will be used by flagmen:

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

* * *

91. Unless some form of block signal is used, trains in the same direction must keep at least 10 minutes apart, except in closing up at stations. * * *

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.

* * *

On this line the maximum authorized speeds are 65 miles per hour for passenger trains and 45 miles per hour for freight trains.

Description of Accident

Extra 1512 North, a north-bound D. & R.G.W. freight train, consisting of engine 1512, 82 cars and a caboose, departed from Walsenburg, the last open office, at 1:55 p. m., and was moving on the northward main track at an estimated speed of 30 miles per hour when the brakes became applied in emergency and a separation occurred between the twenty-first and twenty-second cars. The train stopped about 2:15 p. m., with the rear end standing at a point 3.05 miles north of Walsenburg, and about 30 minutes later the rear end was struck by Extra 3600 North.

Extra 3600 North, a north-bound D. & R.G.W. freight train, consisting of engine 3600, 34 cars and a caboose, departed from Walsenburg at 2:40 p. m., and while moving at an estimated speed of 15 miles per hour it struck Extra 1512 North.

The caboose and the rear five cars of Extra 1512 North, and the engine and the first three cars of Extra 3600 North were derailed, and were damaged. Engine 3600 stopped on its right side about 12 feet east of the east rail of the northward main track, with the front end 233 feet north of the point of collision.

The weather was clear at the time of the accident, which occurred about 2:45 p. m.

The fireman of Extra 3600 was killed. The engineer, the conductor and the front brakeman of Extra 3600 were 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 16.4 trains.

Discussion

Extra 1512 North was moving at a speed of about 30 miles per hour when the engineer made a service brake-pipe reduction to control the speed of the train on the descending grade. Immediately afterward, an undesired emergency application of the brakes occurred and the train parted between the twenty-first and twenty-second cars. The train stopped about 2:15 p. m., and about 30 minutes later the rear end was struck by Extra 3600 North at a point 3.05 miles north of Walsenburg.

When Extra 1512 North stopped, the conductor instructed the flagman to inspect the train. The conductor proceeded southward to provide flag protection. He said that when he reached a point he thought was about 3,300 feet south of the rear of his train he placed two torpedoes on the east rail of the northward main track. Then he returned northward and had reached a point about 1,800 feet south of the rear of his train when he heard the following train approaching. He immediately lighted a red fusee, ran toward the approaching train and gave stop signals with the fusee and a red flag. He said his signals were not acknowledged by the engineer of Extra 3600 North, and he estimated the speed of that train as about 35 miles per hour when the engine passed him.

As Extra 3600 North was approaching the point where the accident occurred the speed was about 35 miles per hour. The brakes of this train had been tested and had functioned properly en route. Brake-pipe pressure of 90 pounds was being maintained. The front brakeman was in the brakeman's booth on the tender. He heard two torpedoes explode when the engine was a short distance south of the point where the collision occurred, and, soon afterward, he observed that the brakes were applied in emergency. He did not look out to ascertain the location of his engine, and could give no accurate estimate of the interval of time between the explosion of the torpedoes and the emergency application of the brakes. He said when the torpedoes were exploded he observed that water was being sprayed over the coal space of the tender, which indicated that one of the enginemen was in the gangway at that time dampening the coal. The fireman was killed in the accident, and the engineer was so seriously injured that he could not be questioned during the investigation. The conductor was seated on the left side of the cupola of the caboose and the flagman was on the right side. The conductor said that when his train was moving on the north end of the curve immediately south of the tangent on which the collision occurred he saw stop signals being given with a lighted fusee from a point about 1,300 feet south of the rear end of the preceding train. Then the conductor opened the emergency valve in the caboose.

The employees on the caboose thought that the brakes were applied in emergency from the engine about the time the conductor opened the emergency valve in the caboose. The speed of Extra 3600 North was about 15 miles per hour when the collision occurred. Examination after the accident disclosed that the throttle lever of engine 3600 was in closed position and the automatic brake valve was in emergency position. There was no condition found that would prevent the proper application of the train brakes.

Because of embankments adjacent to the track on the curve immediately south of the point where the accident occurred, the view of the point of accident from the left side of a north-bound engine is restricted to a distance of about 3,055 feet and from the right side, to 1,024 feet.

In this territory trains are operated by timetable and train orders only. The only provision for spacing following trains is by the time-interval method enforced by operators at open stations, and by flagmen's signals. The rules require that a following train must be spaced at least 10 minutes behind a preceding train. In this case the preceding train departed from Walsenburg, 3.05 miles south of the point of accident, 45 minutes before the following train departed from that station. However, the time-spacing method in use does not provide means for spacing trains except at open offices, and the collision occurred before the trains reached Southern Jct., the next open office, 44.25 miles north of the point of accident. The book of operating rules of this carrier contains manual-block rules which, among other things, provide for blocking of trains, but these rules are not in effect in this territory. If an adequate block system had been in use in this territory, the crew of the following train would have received definite information that the preceding train was occupying the northward main track in the same block.

Cause

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

Recommendation

It is recommended that the Colorado and Southern Railway Company install an adequate block system.

Dated at Washington, D. C., this twenty-first day of October, 1946.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,
Secretary.