INTERSTATE COMMERCE COMMISSION

WASHINGTON

REPORT NO. 3385

NORTHERN PACIFIC RAILWAY COMPANY

IN RE ACCIDENT

NEAR HARMON, N. DAK., ON

JANUARY 15, 1951

SUMMARY

Date:	January 15, 1951	
Railroad:	Northern Pacific	
Location:	Harmon, N. Dak.	
Kind of accident:	Head-end collision	
Trains involved:	Freight	: Freight
Train numbers:	Extra 1756 East	: Extra 1837 West
Engine numbers:	1756	: 1837
Consists:	Auxiliary tender, 51 cars, caboose	: Auxiliary tender, 63 cars, caboose
Estimated speeds:	25 m. p. h.	: Standing
Operation:	Timetable and train orders	
Track:	Single; 2° curve; level	
Weather:	Clear	
Time:	3:10 p. m.	
Casualties:	1 killed; 1 injured	
Cause:	Failure to obey meet order	

INTERSTATE COMMERCE COMMISSION

REPORT NO. 3385

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

NORTHERN PACIFIC RAILWAY COMPANY

March 30, 1951

Accident near Harmon, N. Dak., on January 15, 1951, caused by failure to obey a meet order.

REPORT OF THE COMMISSION[1]

PATTERSON, Commissioner:

On January 15, 1951, there was a head-end collision between two freight trains on the Northern Pacific Railway near Harmon, N. Dak., which resulted in the death of one employee, and the injury of one employee.

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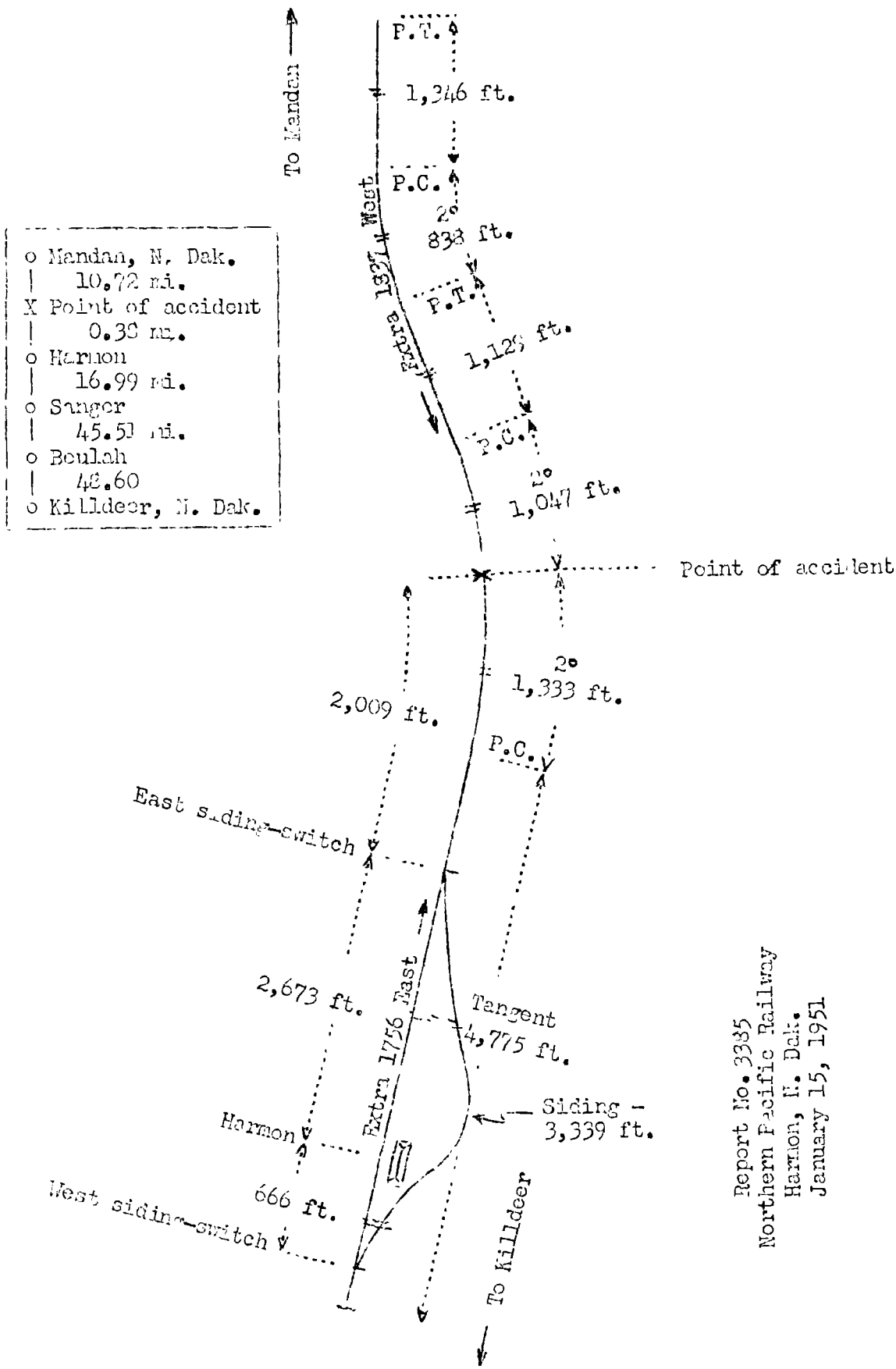
[1] Under authority of section 17 (2) of the Interstate Commerce Act the above-entitled proceeding was referred by the Commission to Commissioner Patterson for consideration and disposition.



Report No. 3335
Northern Pacific Railway
Harmon, N. Dak.
January 15, 1951

Location of Accident and Method of Operation

This accident occurred on that part of the Fargo Division extending between Killdeer and Mandan, N. Dak., 122.2 miles. This is a single-track line, over which trains are operated by timetable and train orders. There is no block system in use. At Harmon, 111.1 miles east of Killdeer, a siding 3,339 feet in length is located south of the main track. The east switch of this siding is 2,673 feet east of the station. The accident occurred on the main track at a point 2,009 feet east of the east siding-switch. From the west there are, in succession, a tangent 4,775 feet in length, and a 2° curve to the left 1,333 feet to the point of accident and 1,047 feet eastward. From the east there are, in succession, a tangent 1,346 feet in length, a 2° curve to the left 838 feet, a tangent 1,129 feet and the curve on which the accident occurred. The grade is level.

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

14. ENGINE WHISTLE SIGNALS.

* * *

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-90.

* * *

S-87. * * *

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

S-88. At meeting points between extra trains, the train in the inferior time-table direction must take the siding * * *

S-89 (A). * * *

At train order meeting points, the train holding the main track must stop clear of the switch used by the train to be met in going on siding unless the train to be met is clear of the main track and switch is properly lined.

S-90. On trains equipped with communicating signal system the conductor must give signal * * * to the engineer immediately after passing the last station but not less than one mile preceding a schedule meeting point with a train of the same or superior class or a point where by train order it is to meet, or has to wait for, an opposing train. The engineer will immediately reply with signal 14 (n). If the engineer fails to answer by signal 14 (n), the conductor must take immediate action to stop the train.

On other trains, the engineer will give signal 14 (n) at least one mile before reaching a meeting or waiting point.

204. * * *

* * *

Engineers 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-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.

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

The maximum authorized speed for the trains involved was 35 miles per hour.

Description of Accident

Extra 1756 East, an east-bound freight train, consisted of engine 1756, an auxiliary tender, 51 cars and a caboose. At Sanger, the last open office, 16.99 miles west of Harmon, the crew received copies of train order No. 423 reading in part as follows:

> Eng 1837 run Extra Mandan to Beulah and return to Mandan Meet Extra 1756 East at Harmon * * *

Beulah is located 73.6 miles west of Mandan. This train departed from Sanger at 2:30 p. m., passed the east siding-switch at Harmon, where it was required to wait unless Extra 1837 West was into clear on the siding, and while moving at an estimated speed of 25 miles per hour it collided with Extra 1837 West at a point 2,009 feet east of the east siding-switch.

Extra 1837 West, a west-bound freight train, consisted of engine 1837, an auxiliary tender, 63 cars and a caboose. At Mandan, the last open office, the crew received copies of train order No. 423. This train departed from Mandan at 2:30 p. m. and stopped on the main track at a point 2,009 feet east of the east siding-switch at Harmon. A few seconds later it was struck by Extra 1756 East.

The engine of Extra 1756 East was derailed and stopped upright and in line with the track. The tender was derailed and stopped upright, with the rear end north of the track and at an angle of about 30 degrees to the engine. The auxiliary tender was derailed to the south and overturned. The first nine cars were derailed and stopped in various positions on or near the track. The front truck of the tenth car was derailed. The engine and the tender were considerably damaged. The auxiliary tender and the first to the eighth cars, inclusive, were badly damaged. The engine of Extra 1837 West was moved eastward approximately 75 feet by the impact. The engine was derailed and stopped upright and in line with the track. The tender was derailed to the south and stopped upright and at an angle of about 40 degrees to the engine. The auxiliary tender was overturned to the south. The first two cars and the front truck of the third car were derailed. The first car stopped

upright and south of the track. The second and the third cars stopped upright and in line with the track. The engine and the tender were considerably damaged. The auxiliary tender and the first car were badly damaged.

The fireman of Extra 1756 East was killed. The engineer of Extra 1756 East was injured.

The weather was clear at the time of the accident, which occurred about 8:10 p. 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 7.36 trains.

Discussion

The rules of this carrier provide that extra trains will be governed by train orders with respect to opposing extra trains. At train-order meeting points the train holding the main track must stop clear of the switch used by the train to be met in going on siding unless the train to be met is clear of the main track and switch is properly lined. The engineer will give signal 14 (n) at least 1 mile before reaching a meeting or waiting point. Engineers must show train orders to firemen and when practicable to forward trainmen. Conductors must show train orders when practicable to trainmen.

As Extra 1756 East was approaching Harmon the speed was about 25 miles per hour. The brakes of this train had been tested and had functioned properly when used en route. The enginemen were in the cab of the engine. The front brakeman was in the brakeman's booth on the tender. The conductor, the flagman and the swing brakeman were in the caboose. All members of the crew, except the front brakeman, had read and understood the train order which established Harmon as the meeting point with Extra 1837 West. The engineer said that during most of the trip the fireman had difficulty in maintaining adequate steam pressure and it had been necessary for him to assist the fireman on several occasions. It was the fireman's first trip over this territory. When the train reached a point about 1.5 miles west of Harmon the steam pressure was about 50 pounds below normal. The fireman was attempting to correct fire conditions, and the engineer again went to his assistance. The engineer said that it did not occur to him that his train was closely approaching the meeting point with Extra 1837 West, and he did not sound the engine-whistle signal for the meeting point. He said that after shaking the grates and raking and leveling the fire he

leaned across his seat box with his head out of the window to recover from his exertions. He first became aware of something being wrong when he saw a person a short distance in front of the engine giving stop signals. He immediately moved the brake valve to emergency position. The collision occurred a few seconds later. The front brakeman said that when the accident occurred he was looking back along the train and he was not aware that the brakes had been applied. As the train was approaching Harmon the conductor was seated on the left side of the caboose and the flagman and the swing brakeman were seated on the right side. The caboose was of the bay-window type. These employees had discussed the provisions of train order No. 423, and the conductor said that he thought the speed of the train was properly controlled approaching the meeting point. When the caboose was in the immediate vicinity of the west siding-switch the swing brakeman saw stop signals being given by maintenance-of-way employees, who had observed the approach of Extra 1837 West. He called a warning and took immediate action to stop the train by the use of the conductor's valve. The conductor and the swing brakemen said they thought that the speed of their train was reduced to about 12 miles per hour before the accident occurred.

As Extra 1837 West was approaching the point where the accident occurred the speed was about 10 miles per hour. The enginemen were in their respective positions in the cab of the engine. The front brakeman was in the brakeman's booth on the tender. The conductor, the flagman and the swing brakeman were in the caboose. The brakes of this train had been tested. The enginemen observed smoke from the engine of Extra 1756 East as that train approached Harmon. When Extra 1756 East was in the immediate vicinity of Harmon they became concerned because it appeared that Extra 1756 East would not stop short of the east siding-switch. The engineer made a brake application and, as the train stopped, the employees on the engine saw that Extra 1756 East had passed the switch. The engineer sounded a warning on the engine whistle, and the fireman alighted from the engine and ran toward the approaching train giving stop signals. The fireman said that he had reached a point about 150 feet west of his engine when the engineer of Extra 1756 East saw his signals and took action to stop the train. The enginemen and the front brakeman of Extra 1837 West thought that the speed of Extra 1756 East was about 25 miles per hour at the time of the collision.

Cause

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

Dated at Washington, D. C., this thirtieth day of March, 1951.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,

Secretary.