

INTERSTATE COMMERCE COMMISSION
WASHINGTON

INVESTIGATION NO. 2560
THE MICHIGAN CENTRAL RAILROAD COMPANY
REPORT IN RE ACCIDENT -
- NEAR MULLET LAKE, MICH., ON
JANUARY 13, 1942

SUMMARY

Railroad: Michigan Central
Date: January 13, 1942
Location: Mullet Lake, Mich.
Kind of accident: Derailment
Train involved: Passenger
Train number: 207
Engine number: 2001
Consist: 7 cars
Estimated speed: 35 m. p. h.
Operation: Timetable and train orders
Track: Single; tangent; 0.65 percent
ascending grade northward
Weather: Clear
Time: About 7:32 a. m.
Casualties: 1 killed
Cause: Accident caused by broken rail

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 2560

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

THE MICHIGAN CENTRAL RAILROAD COMPANY

March 10, 1942.

Accident near Mullet Lake, Mich., on January 13, 1942,
caused by broken rail.

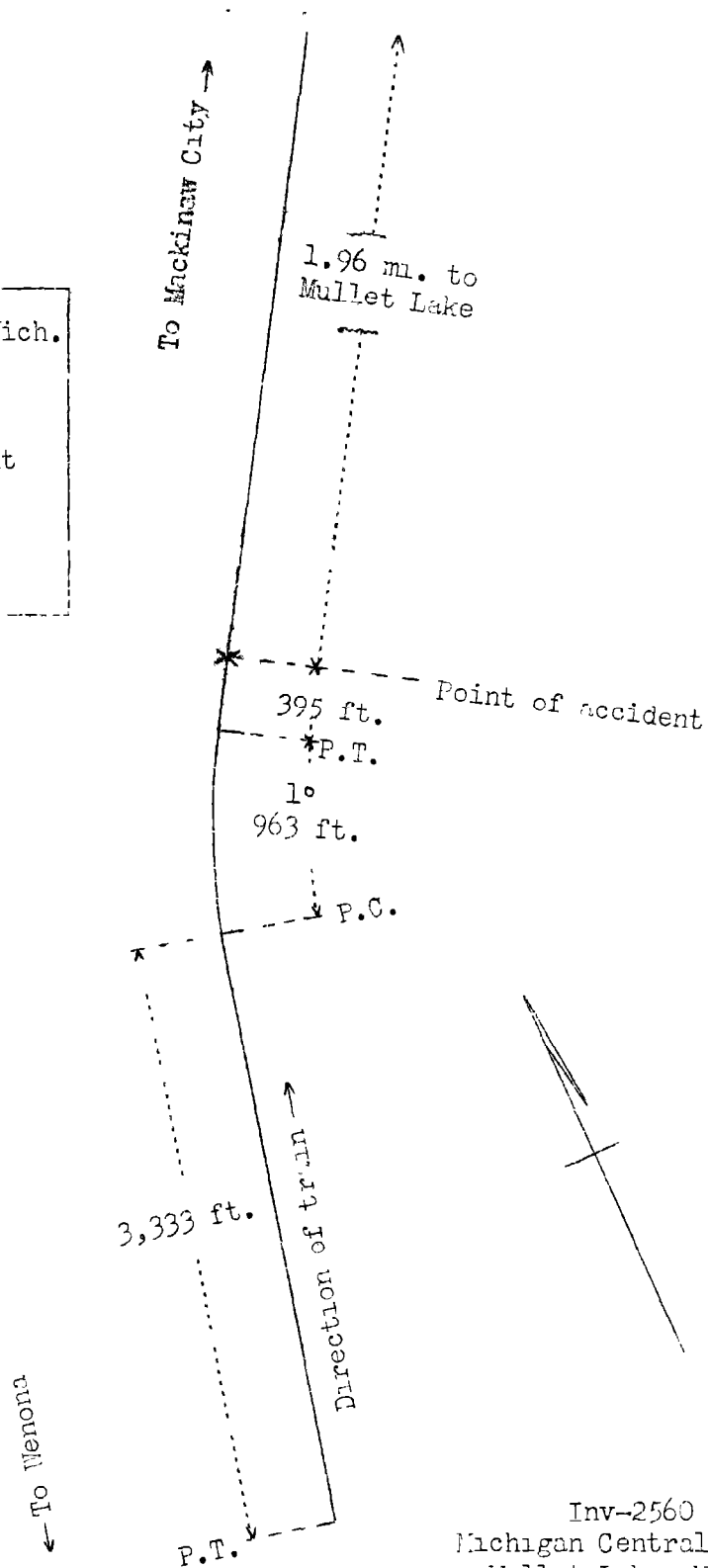
REPORT OF THE COMMISSION¹

PATTERSON, Commissioner:

On January 13, 1942, there was a derailment of a passenger train on the Michigan Central Railroad near Mullet Lake, Mich., which resulted in the death of one employee.

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.

○	Mackinaw City, Mich.	21.90 mi.
○	Mullet Lake	1.96 mi.
X	Point of accident	20.18 mi.
○	Wolverine	135.59 mi.
○	Wenona, Mich.	



Inv-2560
 Michigan Central Railroad
 Mullet Lake, Mich.
 January 13, 1942

Location of Accident and Method of Operation

This accident occurred on that part of the Michigan Division which extends between Wenona and Mackinaw City, Mich., a distance of 179.63 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 1.96 miles south of the station at Mullet Lake. As the point of accident is approached from the south there are, in succession, a tangent 3,333 feet in length, a 1° curve to the right 963 feet, and a tangent 395 feet to the point of accident and some distance beyond. The grade for north-bound trains varies between 0.045 and 0.79 percent descending a distance of 3,850 feet, then there is a vertical curve 300 feet, which is followed, successively, by a 0.865 percent ascending grade a distance of 600 feet and 0.65 percent ascending grade 114 feet to the point of accident and 86 feet beyond.

In the vicinity of the point of accident the track is laid on a fill about 6 feet in height. The track structure consists of 90-pound rerolled rail, 33 feet in length, laid in 1925, on an average of 20 treated hardwood ties to the rail length; it is single-spiked and without tieplates, and is equipped with 25-inch 4-hole angle bars. The track is ballasted with gravel and cinders to a depth of 15 inches below the tops of the ties.

In the vicinity of the point of accident the maximum authorized speed for passenger trains is 40 miles per hour.

Description of Accident

No. 207, a north-bound first-class passenger train, consisted of engine 2001, of the 2-8-2 type, two baggage cars, one railway postal car, one baggage car, one passenger-baggage car, one coach and one Pullman sleeping car, in the order named. All cars were of steel construction. After a terminal air-brake test was made this train departed from Wenona, 157.73 miles south of Mullet Lake, at 3:07 a. m., according to the dispatcher's record of movement of trains, 13 minutes late. Soon afterward a running test was made, and the air brakes functioned properly at all points where used en route. This train left Wolverine, 22.14 miles south of Mullet Lake and the last open office, at 6:49 a.m., 9 minutes late, and while moving at an estimated speed of 30 to 35 miles per hour it was derailed at a point 1.96 miles south of Mullet Lake.

Engine 2001 was derailed to the right, continued forward a distance of 237 feet and stopped upright, with its front and rear ends, respectively, 41.5 feet and 24 feet east of the east

rail. The left side of the cab was crushed inward. The tender, remaining coupled to the engine, stopped across the track at right angles to the engine. Both trucks were detached. The first car was derailed to the left and stopped, badly damaged, parallel to the track. The second car was derailed to the left and stopped, slightly damaged, to the rear of the first car and at an angle of 45 degrees to the track. The third car was derailed and stopped, badly damaged, upright and across the track at an angle of 70 degrees to it. The front truck was detached. The fourth car was derailed to the right and stopped upright, with its front end against the third car and its rear end on the roadbed. The front truck was detached. Both trucks of the fifth car were derailed and this car stopped upright and in line with the track and remained coupled to the sixth car. The front truck of the sixth car was derailed and this car remained coupled to the seventh car. The seventh car stopped with its rear end standing 180 feet south of the point of derailment. The track was destroyed throughout a distance of about 250 feet immediately north of the point of derailment.

The engine was in good mechanical condition, and after the accident there was no indication of dragging equipment or of any obstruction having been on the track.

The weather was clear at the time of the accident, which occurred about 7:32 a. m.

The employee killed was the fireman.

Data

During the 30-day period preceding the day of the accident, the average daily movement over the track involved was 4.7 trains.

The rail involved was rolled as 100-pound rail by the Illinois Steel Company in 1916 and rerolled to 90 pounds in 1925.

Discussion

No. 207 was moving at a speed of about 35 miles per hour when it became derailed in territory where the maximum authorized speed was 40 miles per hour. Prior to the time of the accident, the engine and cars had been riding smoothly, and there was no indication of defective track or equipment, or of any obstruction on the track. The engineer was not aware of anything being wrong until the right engine-truck wheel dropped suddenly. He immediately moved the brake valve to emergency position and the general derailment occurred.

After the accident occurred, several broken rails on each side of the track were found. Of the first broken rail on the east side of the track, a piece of the receiving end 13 feet long remained in normal position. There were flange marks outside this piece of rail but apparently these marks were made by wheels to the rear of the engine being forced over the rail after the engine was derailed. Apparently the derailment occurred a few feet north of the north end of the 13-foot section, as marks outside the normal location of the rail and immediately north of this section indicated that the engine became derailed at this point. The remaining portion of this rail was broken into many pieces, some of which were not recovered. Among the pieces recovered was a piece of web and base 18 inches long. The surface of the broken web was considerably discolored by oxidation, which condition indicated that the fracture had existed some time prior to the derailment. The edge of the web had been somewhat battered. The other fractures appeared to have resulted during the derailment. Apparently the failure occurred at the point where the old fracture existed. Probably the head and the upper part of the web of the 18-inch section were broken from the rail by the last train prior to the one involved. This condition would account for the right engine-truck wheel of engine 2001 dropping suddenly. There was a mark 1 inch long, 3/8-inch wide and 1/16-inch deep midway between the tread and the top of the flange of the right engine-truck wheel. This mark indicated that the wheel had been in contact with an irregular surface such as a broken web in vertical position. Another mark 5-5/8 inches long, which began on the face of the flange 8-3/8 inches from the first mark and extended diagonally to the back of the flange, indicated that after the flange had been in contact with the broken web the wheel dropped to the outside of the broken web.

A detector car was last operated over the track involved in September, 1934. The section foreman last inspected the track from a passenger train about 24 hours before the accident occurred and he did not observe any abnormal condition of the track in the vicinity of the point of accident.

Cause

It is found that this accident was caused by a broken rail.

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

By the Commission, Commissioner Patterson.

W. P. BARTEL,

(SEAL)

Secretary.