INTERSTATE COMMERCE COMMISSION

WASHINGTON

REPORT NO. 3376

THE NEW YORK CENTRAL RAILROAD COMPANY

IN RE ACCIDENT

AT ONEIDA, N. Y., ON

OCTOBER 19, 1950

SUMMARY

Date:	October 19, 1950
Railroad:	New York Central
Location:	Oneida, N. Y.
Kind of accident:	Derailment
Train involved:	Passenger
Train number:	21
Engine number:	5422
Consist:	11 cars
Speed:	60 m. p. h.
Operation:	Signal indications
Tracks:	Four; tangent; 0.31 percent descending grade westward
Weather:	Cloudy
Time:	1:58 a. m.
Casualties:	2 killed; 9 injured
Cause:	Obstruction on track

INTERSTATE COMMERCE COMMISSION

REPORT NO. 3376

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

THE NEW YORK CENTRAL RAILROAD COMPANY

January 12, 1951

Accident at Oneida, N. Y., on October 19, 1950, caused by an obstruction on the track.

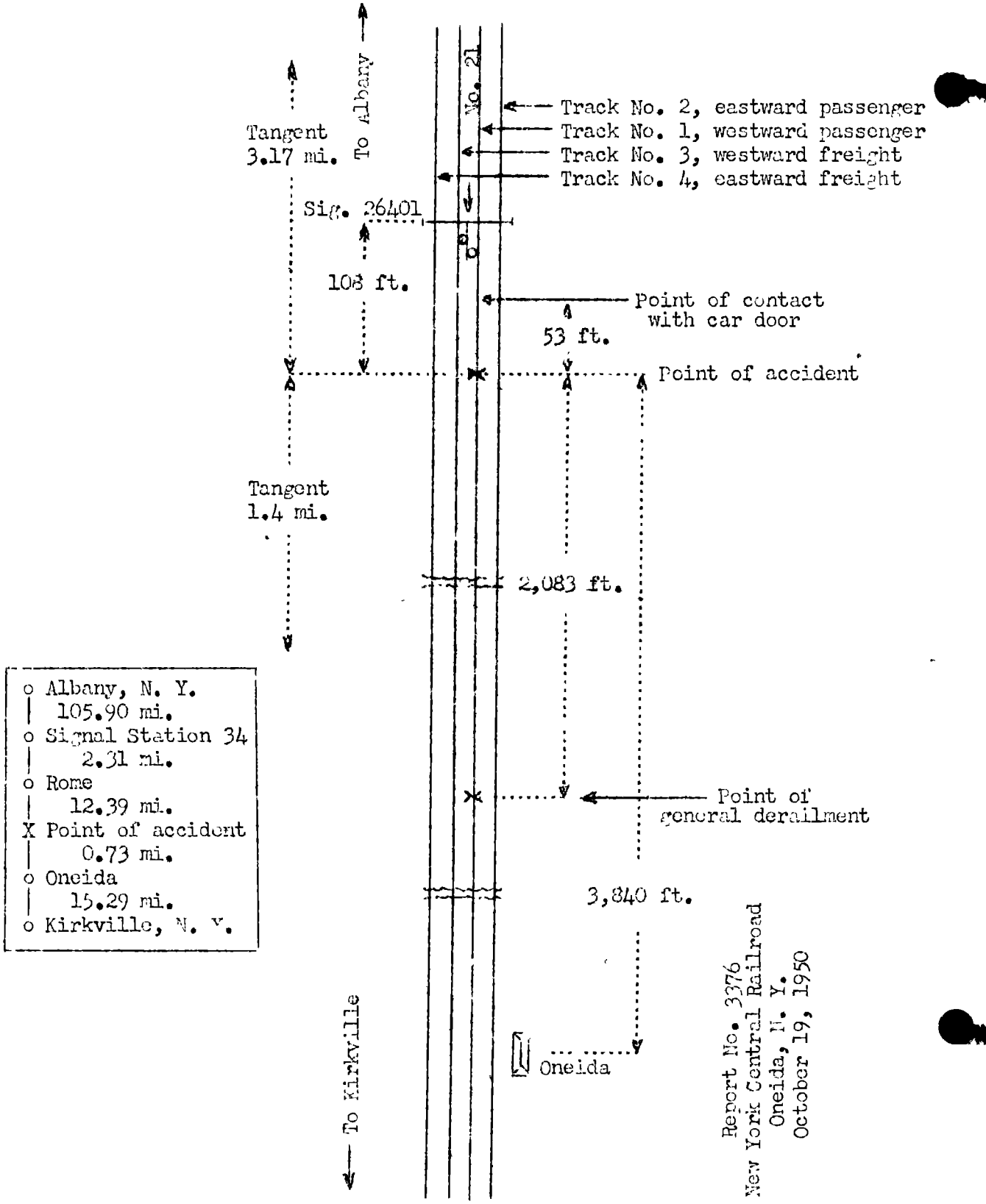
REPORT OF THE COMMISSION[1]

PATTERSON, Commissioner:

On October 19, 1950, there was a derailment of a passenger train on the New York Central Railroad at Oneida, N. Y., which resulted in the death of two train-service employees and the injury of eight passengers and one train-service employee. This accident was investigated in conjunction with a representative of the New York Public Service Commission.

---

[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. 3376
New York Central Railroad
Oneida, N. Y.
October 19, 1950

Location of Accident and Method of Operation

This accident occurred on that part of the Mohawk Division extending between Albany and Kirkville, N. Y., 136.62 miles. In the vicinity of the point of accident this is a four-track line, over which trains moving with the current of traffic are operated by signal indications supplemented by an automatic train-stop system. The main tracks from south to north are designated as No. 2, eastward passenger; No. 1, westward passenger; No. 3, westward freight; and No. 4, eastward freight. The accident occurred on track No. 1 at a point 120.6 miles west of Albany and 3,840 feet east of the station at Oneida. The main tracks are tangent throughout a distance of 3.17 miles immediately east of the point of accident and 1.41 miles westward. The grade varies between 0.31 percent and 0.43 percent descending westward throughout a distance of 1.4 miles immediately east of the point of accident and is 0.31 percent descending at that point.

The track structure consists of 127-pound rail, 39 feet in length, laid new in 1943 on an average of 24 treated ties to the rail length. It is fully tieplated with double-shoulder canted tieplates, spiked with two rail-holding and two anchor spikes per tieplate, and is provided with 6-hole 36-inch toeless joint bars and an average of 12 rail anchors per rail length. It is ballasted with crushed stone to a depth of 36 inches below the bottoms of the ties.

Semi-automatic signal 26401, governing west-bound movements on track No. 1, is located 108 feet east of the point of accident. This signal is of the 2-unit color-light type and displays four aspects. It is approach lighted.

The maximum authorized speed for passenger trains on track No. 1 is 80 miles per hour.

Description of Accident

No. 21, a west-bound first-class passenger train, consisted of engine 5422, one baggage car, one passenger-baggage car, one coach, two sleeping cars, one coach, and five sleeping cars, in the order named. The first, seventh, and eighth cars were of conventional all-steel construction, the second car was of lightweight aluminum construction, and the other cars were of lightweight steel construction. The second to the sixth cars, inclusive, and the ninth, tenth, and eleventh cars were equipped with tightlock couplers. This

train passed Signal Station 34, the last open office, 15.43 miles east of Oneida, at 1:44 a. m., 12 minutes late, and while moving on track No. 1 at a speed of 83 miles per hour it struck a corrugated-steel freight-car door which had fallen across both rails of track No. 1 at a point 3,893 feet east of the station at Oneida. One pair of engine-truck wheels was derailed 53 feet west of the point at which the engine struck the door, and the engine, the tender, and the first to the tenth cars, inclusive, were derailed at a point 2,083 feet west of the initial point of derailment.

The engine stopped on its left side, headed eastward, with its front end on track No. 4 and its rear end on track No. 1. The rear end was 3,140 feet west of the initial point of derailment. The tender remained coupled to the engine and stopped on its left side, on track No. 2 and parallel to that track. The engine and the tender were badly damaged. Separations occurred between the tender and the first car, between the second and the third cars, and between the third and the fourth cars. The coupler shanks were broken at the rear end of the second car and at the front end of the fourth car. The first car stopped between tracks Nos. 1 and 2, with its front end 171 feet east of the rear end of the tender. It leaned to the south at an angle of about 30 degrees. The second car stopped upright and in line with track No. 1. The third car stopped with its front end against the rear end of the second car and its rear end on track No. 4. It leaned to the north at an angle of about 20 degrees. The fourth car stopped upright, with its front end against the rear end of the third car and its rear end on track No. 1. The other derailed cars stopped upright and practically in line with track No. 1. The derailed cars were considerably damaged, and the eleventh car was slightly damaged.

The engineer and the fireman were killed, and the front brakeman was injured.

The weather was cloudy at the time of the accident, which occurred about 1:58 a. m.

Engine 5422 is of the 4-6-4 type. The total weight in working order is 360,000 pounds, distributed as follows: engine-truck wheels, 63,500 pounds; driving wheels, 201,500 pounds; front trailing-truck wheels, 41,200 pounds; rear trailing-truck wheels, 53,800 pounds. The specified diameters of the engine-truck wheels, the driving wheels, the front trailing-truck wheels, and the rear trailing-truck wheels are, respectively, 36 inches, 79 inches, 36 inches, and 51 inches. The driving wheelbase is 14 feet long, the total wheelbase is 40 feet 4 inches long, and the total length of the engine and tender, coupled, is 106 feet 1-5/16 inches.

Discussion

As No. 21 was approaching the point where the accident occurred, the speed was 83 miles per hour. The enginemen were in the cab of the engine, and the members of the train crew were in various locations throughout the cars of the train. The headlight was lighted brightly. The brakes of this train had been tested and had functioned properly when used en route. Members of the train crew said that the cars were riding smoothly and that there was no indication of defective track or equipment. According to the tape of the speed recording device, an emergency brake application was made at a point about 500 feet west of the initial point of derailment, and the speed had been reduced to 60 miles per hour when the general derailment occurred. The brakes were not applied until after the engine-truck wheels were derailed, therefore, it is apparent that, before the engine struck the door, the enginemen were not aware that the track was obstructed. Because there was no reduction in speed as No. 21 approached signal 26401, that signal evidently displayed an aspect to proceed.

Examination of the track structure after the accident occurred disclosed that the door which was struck by No. 21 had become detached from the south side of a car in a westbound freight train on track No. 3. It had dropped vertically to the ballast and then had fallen across both rails of track No. 1. This door was painted with maroon paint. The point at which it fell was marked by disturbance of the ballast between tracks Nos. 1 and 3 and by traces of maroon paint on pieces of the ballast. Intermittent streaks of paint of the same color appeared on the top of each rail of track No. 1 throughout a distance of 53 feet west of this point. Immediately west of the paint marks on the rails, the ties bore marks indicating that one pair of wheels had become derailed to the north. After these wheels were derailed, the door became lodged underneath the front of the engine and skidded on the tops of the rails until it was cut apart by the wheels of the engine. A section of the door approximately 55 inches in width and weighing 295 pounds was found between the rails of track No. 1 at a point 1,547 feet west of the initial point of derailment. The bottom section of the door was found on track No. 3 and the upper right-hand corner was found on track No. 2 at points, respectively, 386 feet and 861 feet farther westward. Marks on the ties indicated that a second pair of wheels had become derailed immediately east of the point at which the section of door was found between the rails, and a third pair of wheels had become derailed immediately west of that point. A fourth and a fifth pair of wheels were derailed

1,786 feet west of the initial point of derailment. Marks on the ties indicated that the engine-truck wheels then had veered toward the north, and the general derailment occurred 297 feet farther westward.

The investigation disclosed that the door which was struck by No. 21 had fallen from the south side of C.& W.C. 9103, an empty automobile car. This car was added to the train of Extra 3124 West, a west-bound freight train, at Rome, 13.12 miles east of Oneida, and was the fifty-sixth car of that train. Extra 3124 West, consisting of engine 3124, 126 cars and a caboose, departed from Rome at 12:35 a. m. and stopped on track No. 3 at Oneida at 1:15 a. m. The first six cars were set off at Oneida. When the engine was re-coupled to the train, the engineer found that it was necessary to close the slack on the front portion of the train before the train could be started in forward motion. After the slack was closed, an attempt to start the train was unsuccessful. The slack then was closed a second time, and the train was started at 1:35 a. m. During the time that the cars were being set off, the conductor and a brakeman inspected the rear portion of the train, and the flagman remained in the vicinity of the caboose. When the conductor and the brakeman reached a point about 40 car lengths ahead of the caboose, they observed that the train was about to proceed. They then returned to the rear of the train and entered the caboose soon after the train started. The flagman entered the caboose about the same time. The members of the crew said that there were no unusually severe impacts either when the train was stopped or when it was started, and they were unaware that the door had fallen from C.& W.C. 9103. The engineer of an east-bound passenger train which passed Oneida on track No. 2 at 1:18 a. m., after Extra 3124 West had stopped, said that there was no obstruction on track No. 1 at that time. It is probable that the door fell as Extra 3124 West was being started.

C.& W.C. 9103, a double-door steel automobile car, 40 feet 6 inches in length, was built in 1919 and rebuilt in November, 1940. The door tracks, 3-inch channels weighing 4.1 pounds per foot, had depressions for the door rollers at the closed and open positions. The door tracks were securely attached to the side sills. The door hoods were 2-1/16-inch by 2-inch by 1-3/4-inch by 3/16-inch "Z" irons and were securely attached to the side plates. The door hood on the right side was bent upward to a maximum of 9/16 inch near the center of the door opening. The back stops were in place and securely attached. There was no indication that the door had been forced beyond either stop. The door that came off was the auxiliary door on the south side. It was a corrugated steel door 7 feet 5-3/4 inches wide and 10 feet 5/16 inch high. The weight with

locking bar was 624 pounds. Although the door was cut into three pieces in the accident, the rollers, roller housings, door starter, and top angle were found to be in good condition. Because of the damage to this door as a result of the accident, the extent to which the top angle projected up under the hood prior to the time the door fell could not be determined. However, on the adjacent door it was found that the top angle projected upward under the hood from 3/8 inch to 1/2 inch. Apparently when the slack was being closed in connection with the starting of Extra 3124 West there was enough shock as a result of the slack action to cause sufficient deflection of the side sill and the side plate to permit the top angle of the auxiliary door to work out from under the hood, and this action permitted the door to fall. It could not be determined if the door in question was closed and latched prior to the time the door fell, however, the hasp, staple, and seal pin were found to be in good condition after the accident occurred.

Cause

It is found that this accident was caused by an obstruction on the track.

Dated at Washington, D. C., this twelfth day of January, 1951.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,

Secretary.