

INTERSTATE COMMERCE COMMISSION
WASHINGTON

REPORT NO. 3302
THE LONG ISLAND RAILROAD COMPANY
IN RE ACCIDENT
NEAR WOODSIDE, N. Y., ON
DECEMBER 22, 1949

SUMMARY

Date: December 22, 1949

Railroad: Long Island

Location: Woodside, N. Y.

Kind of accident: Rear-end collision

Trains involved: Passenger-equipment : **Passenger-equipment**

Train numbers: Extra 1458 West : Extra 1409 West

Consists: 12 multiple-unit cars : 11 multiple-unit cars

Estimated speeds: Standing : 45 m. p. h.

Operation: Interlocking

Tracks: Four; tangent; 0.8 percent ascending grade westward

Weather: Clear

Time: 5:40 p. m.

Casualties: 2 killed; 6 injured

Cause: Failure to operate following train in accordance with signal indications

INTERSTATE COMMERCE COMMISSION

REPORT NO. 3302

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

THE LONG ISLAND RAILROAD COMPANY

January 27, 1950

Accident near Woodside, N. Y., on December 22, 1949,
caused by failure to operate the following train
in accordance with signal indications.

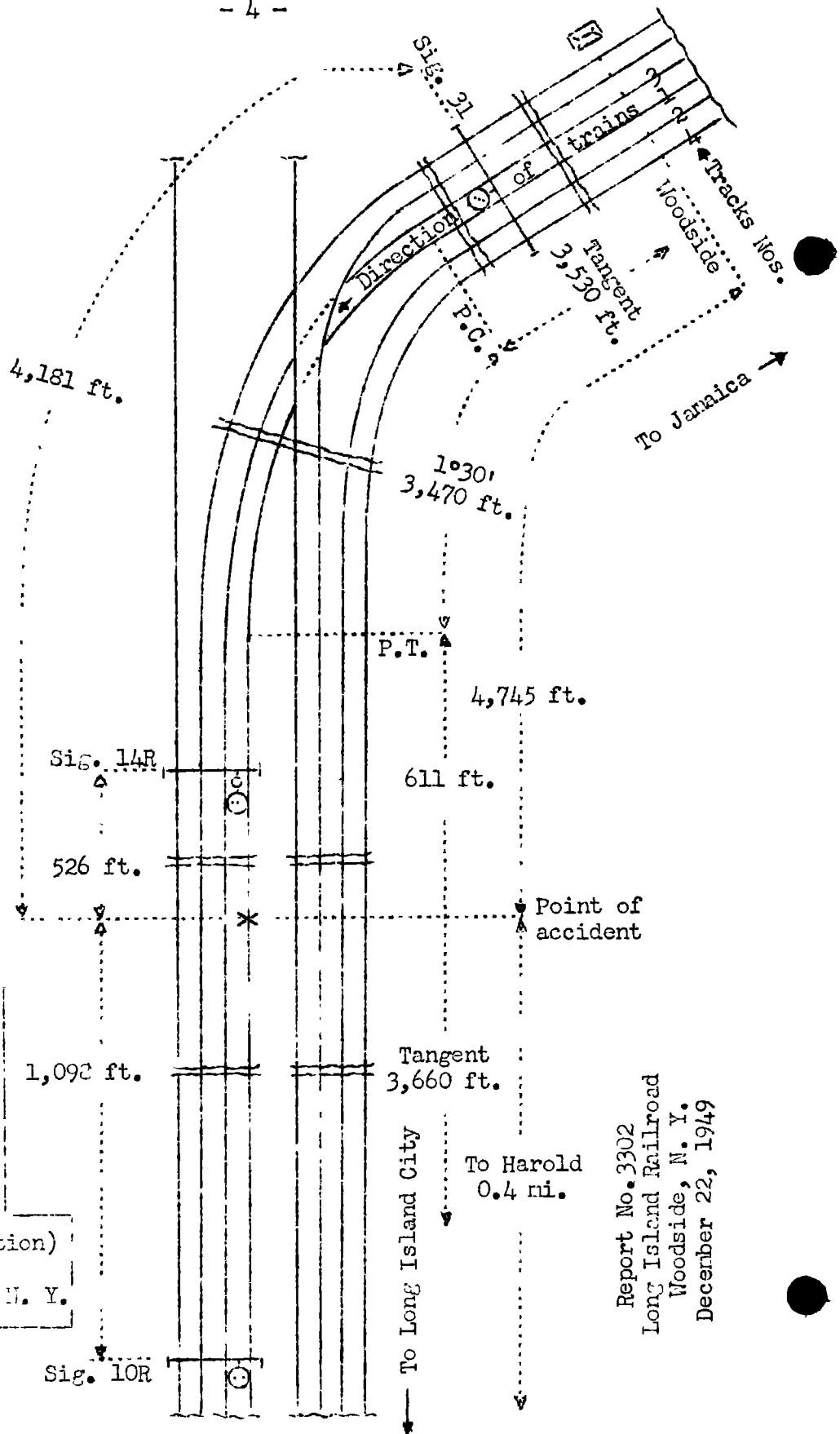
REPORT OF THE COMMISSION¹

PATTERSON, Commissioner:

On December 22, 1949, there was a rear-end collision between two passenger-equipment trains on the Long Island Railroad near Woodside, N. Y., which resulted in the death of two employees, and the injury of six employees. This accident was investigated in conjunction with representatives 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.

- o Jamaica, N. Y.
5.5 mi.
- o Win
0.7 mi.
- o Woodside
0.9 mi.
- X Point of accident
0.4 mi.
- o Harold
(interlocking station)
1.8 mi.
- o Long Island City, N. Y.



Report No. 3302
Long Island Railroad
Woodside, N. Y.
December 22, 1949

Location of Accident and Method of Operation

This accident occurred on that part of the railroad extending between Jamaica and Long Island City, N. Y., 9.5 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. The tracks are equipped with power rails for the electric propulsion of trains. The main tracks from south to north are designated as No. 4 and No. 2 eastward, and No. 1 and No. 3 westward. The accident occurred on track No. 1 within Harold interlocking limits at a point 7.1 miles west of Jamaica and 4,745 feet west of the station at Woodside. From the east on track No. 1 there are, in succession, a tangent 3,530 feet in length, a 1°30' curve to the left 3,470 feet, and a tangent 611 feet to the point of accident and 3,660 feet westward. The grade is 0.8 percent ascending westward at the point of accident.

Automatic signal 31 and semi-automatic signals 14R and 10R, governing west-bound movements on track No. 1, are located, respectively, 4,181 feet east, 526 feet east, and 1,098 feet west of the point of accident. These signals are of the position-light type and are continuously lighted. Signal 31 displays four aspects, and signal 14R displays five aspects. The controlling circuits are so arranged that when a west-bound train is occupying track No. 1 between signals 14R and 10R and the route is lined for a following west-bound movement from signal 14R to signal 10R, signal 31 indicates Approach and signal 14R indicates Stop-and-proceed. The involved aspects and the corresponding indications and names are as follows:

<u>Signal</u>	<u>Aspect</u>	<u>Indication</u>	<u>Name</u>
31	Three amber lights in diagonal position to the right.	Proceed prepared to stop at next signal. Train exceeding Medium speed must at once reduce to that speed.	Approach.

14R	Three amber lights in horizontal position over one amber marker light.	Stop; then proceed at Restricted speed.	Stop-and-proceed.
10R	Three amber lights in horizontal position.	Stop.	Stop-signal.

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

DEFINITIONS

Medium Speed--Not exceeding one-half the speed authorized for passenger trains but not exceeding 30 miles per hour.

Restricted Speed--Not exceeding 15 miles per hour prepared to stop short of train, obstruction or switch not properly lined and to look out for broken rail.

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 * * *.

* * *

305. Interlocking signals govern the use of the routes of an interlocking, and as to movements within home signal limits that are protected by home signals and distant signals, their indications supersede the superiority of trains, and engine and train crews are relieved from observing Rule 99 * * *.

The maximum authorized speed for the trains involved was 65 miles per hour, but it was restricted to 50 miles per hour within interlocking limits at Harold.

Description of Accident

Extra 1458 West, a west-bound passenger-equipment train, consisted of 12 multiple-unit passenger-train cars.. All cars were of steel construction. This train was being operated from the front control compartment of MU coach 1458, the first

unit of the train. It passed Win, the last open office, 0.7 mile east of Woodside, at 5:35 p. m., passed signal 31, which indicated Approach, stopped at signal 14R, which indicated Stop-and-proceed, then proceeded westward on track No. 1 and stopped at signal 10R, which indicated Stop. The rear end of the rear car stopped 526 feet west of signal 14R. About 2 minutes later the rear end was struck by Extra 1409 West.

Extra 1409 West, a west-bound passenger-equipment train, consisted of 11 multiple-unit passenger-train cars. The first six cars were of steel construction, and the five rear cars were of aluminum alloy construction. This train was being operated from the front control compartment of MU coach 1409, the first unit of the train. It passed Win at 5:38 p. m., passed signal 31, which indicated Approach, passed signal 14R, which indicated Stop-and-proceed, and while moving at an estimated speed of 45 miles per hour it struck the rear end of Extra 1458 West.

Extra 1458 West was moved westward approximately 25 feet by the force of the impact. The center sill of the first car of Extra 1409 West passed through the end of the rear car of Extra 1458 West and extended into the car about two-thirds its length. The front wheels of the rear truck of the rear car of Extra 1458 West were derailed. This car was badly damaged. The seventh to eleventh cars, inclusive, of Extra 1458 West were somewhat damaged. The superstructure above the center sill of the first car of Extra 1409 West was crushed and compressed into about one-third its original length. This car remained upright and in line with the tracks. The second car was badly damaged, and the third, fourth, sixth, seventh, and ninth cars were somewhat damaged.

The motorman and the front brakeman of Extra 1409 West were killed. The conductor, the motorman, and the flagman of Extra 1458 West, and the flagman and two ticket collectors of Extra 1409 West were injured.

The weather was clear and it was dark at the time of the accident, which occurred about 5:40 p. m.

The multiple-unit cars involved are equipped with electro-pneumatic and automatic air brakes. A safety-control feature actuated by a contact plunger on the controller handle is provided. If pressure on this plunger is released, the train brakes will become applied in emergency unless a brake application of a predetermined brake-cylinder pressure has been made. The electro-pneumatic and the automatic features of the train brake system are operated by one brake valve.

Discussion

When Extra 1458 West stopped at signal 10R, the motorman was in the control compartment at the front of the first car, the front brakeman was in the vestibule at the front of the first car, and the conductor and the flagman were in the rear car. The marker lamps were of the oil-burning type and displayed red to the rear. They were in their proper positions at the rear of the train and were lighted when the train departed from Jamaica, but they were not observed by members of the crew after the train departed from that station. The train was within interlocking limits when it stopped short of signal 10R. The operating rules of this carrier provide that flag protection to the rear is not required within interlocking limits. No member of the crew was aware of the approach of Extra 1409 West until the collision occurred.

As Extra 1409 West was approaching the point where the accident occurred the motorman was in the control compartment at the front of the first car, the front brakeman was in the first car, and the other members of the train crew were in various locations throughout the cars of the train. The brakes of this train had been tested at Freeport, 19.6 miles east of Woodside, and had functioned properly when used to control the speed of the train at various points en route. Surviving members of the crew said they thought the speed of the train immediately prior to the time of the collision was about 45 miles per hour, which was the usual speed for their train in that vicinity. They said that the brakes were not applied as the train approached the point where the accident occurred, and that they were unaware of anything being wrong until the collision occurred.

No surviving member of the crew of Extra 1409 West saw the aspects displayed by signals 31 and 14R, but after the accident they were observed to be functioning properly. They displayed proper aspects for the preceding train, and in tests after the accident they functioned properly. On this basis the aspect displayed by signal 31 required that the speed of Extra 1409 West be reduced at once to medium speed and be so controlled that the train could be stopped short of signal 14R. The aspect displayed by signal 14R required that Extra 1409 West stop before it passed the signal, and then proceed at restricted speed. The motorman of Extra

1409 West was killed in the accident, and it could not be determined why the train was not operated in accordance with the signal indications. Surviving members of the crew said that they had noticed nothing unusual in the handling of the train prior to the time the accident occurred, and that the speed had been controlled properly at all points between Freeport and Woodside.

The brake equipment of the first two cars of Extra 1409 West was damaged in the collision to the extent that it could not be tested. The air brakes of the other nine cars were tested after the accident occurred and functioned properly.

Cause

It is found that this accident was caused by failure to operate the following train in accordance with signal indications.

Dated at Washington, D. C., this twenty-seventh day of January, 1950.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,
Secretary.