

INTERSTATE COMMERCE COMMISSION
WASHINGTON

REPORT NO. 3510
THE BALTIMORE AND OHIO RAILROAD COMPANY
IN RE ACCIDENT
AT GAITHERSBURG, MD., ON
FEBRUARY 11, 1953

SUMMARY

Date: February 11, 1953

Railroad: Baltimore and Ohio

Location: Gaitnersburg, Md.

Kind of accident: Collision

Equipment involved: Passenger train : Automobile

Train number: 23 :

Engine number: 5316 :

Consist: 8 cars

Estimated speeds: 67 m. p. h. . 10 m. p. h.

Operation: Signal indications

Track: Double; tangent, 0 94 percent
descending grade westward

Highway: Tangent, crosses track at angle of
85°, practically level north of the
crossing

Weather: Raining

Time: 10 51 p. m.

Casualties: 4 killed, 13 injured

Cause: Automobile occupying rail-highway
grade crossing immediately in front
of an approaching train

INTERSTATE COMMERCE COMMISSION

REPORT NO. 3510

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

THE BALTIMORE AND OHIO RAILROAD COMPANY

April 14, 1953

Accident at Gaithersburg, Md., on February 11, 1953, caused
by an automobile occupying a rail-highway grade crossing
immediately in front of an approaching train.

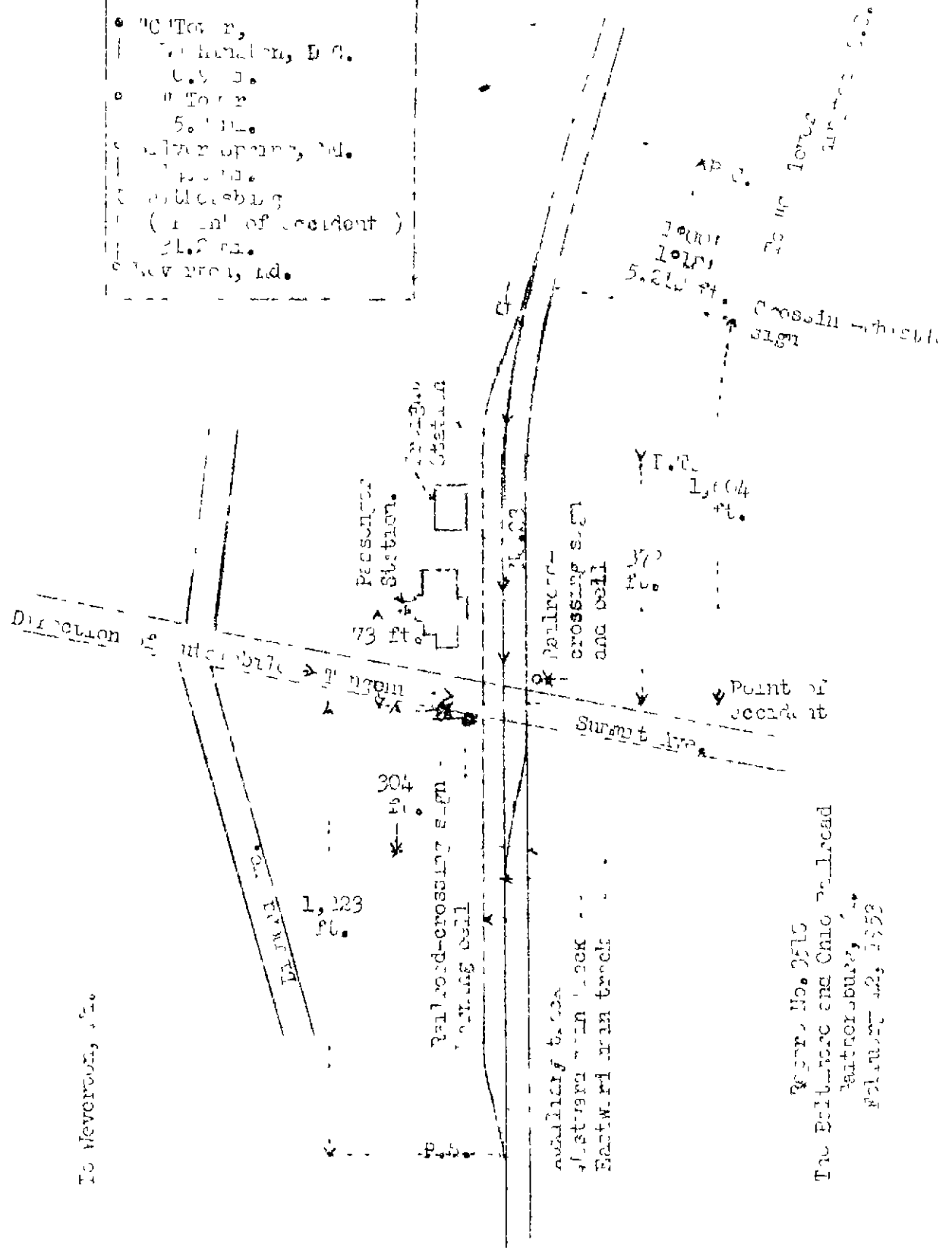
REPORT OF THE COMMISSION¹

PATTERSON, Commissioner:

On February 11, 1953, there was a collision between a passenger train on the Baltimore and Ohio Railroad and an automobile at a rail-highway grade crossing at Gaithersburg, Md., which resulted in the death of four occupants of the automobile, and the injury of four passengers, one Pullman Company employee, four railway-mail clerks, one train attendant and three train-service employees.

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.

• "C" Tower,
 Washington, D.C.
 0.5 mi.
 • "D" Tower
 5.0 mi.
 • "E" Tower
 1.0 mi.
 • "F" Tower
 1.0 mi.
 • "G" Tower
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 • "H" Tower
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 • "I" Tower
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 • "S" Tower
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 • "T" Tower
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 • "U" Tower
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 • "V" Tower
 1.0 mi.
 • "W" Tower
 1.0 mi.
 • "X" Tower
 1.0 mi.
 • "Y" Tower
 1.0 mi.
 • "Z" Tower
 1.0 mi.



Report No. 2570
 The Baltimore and Ohio Railroad
 Baltimore, Md.
 February 22, 1953

To Newport, Va.

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Location of Accident and Method of Operation

This accident occurred on that part of the Baltimore Division extending between "C" Tower, Washington, D. C., and Weverton, Md., 51.5 miles. In the vicinity of the point of accident this is a double-track line, over which trains moving with the current of traffic are operated by signal in sections supplemented by an intermittent inductive automatic train-stop system. The main tracks from north to south are designated as No. 1, westward, and No. 2, eastward. The accident occurred on track No. 1 at a point 20.31 miles west of "C" Tower and 78 feet west of the station at Gaitersburg, Md., where the railroad is crossed at grade by Summit Avenue. In the vicinity of the point of accident an auxiliary track parallels track No. 1 on the north. West of the crossing, a trailing-point crossover connects tracks Nos. 1 and 2. The frog of the west turnout of the crossover and the west switch of the auxiliary track are located, respectively, 304 feet and 1,235 feet west of the center-line of Summit Avenue. From the east on track No. 1 there are, in succession, a compound curve to the left, having a maximum curvature of 1°12', 5,210 feet in length, and a tangent 372 feet to the point of accident and a considerable distance westward. The grade for west-bound trains is, successively, 0.96 percent ascending a distance of 5,030 feet, 0.01 percent ascending 3,000 feet, and 0.24 percent descending 780 feet to the point of accident.

Summit Avenue intersects the railroad at an angle of 25°. This roadway is surfaced with bituminous material and is tangent throughout a considerable distance immediately north of the crossing. The crossing is 35 feet 9 inches wide. Plankin 12 inches in width is provided on the outside of each rail and 8 inches in width on the inside of each rail. Flangeways 3-1/8 inches wide are provided. The outside of each edge of the crossing is planked with 8-inch headers. The remaining area of the crossing is surfaced with bituminous concrete to the level of the tops of the rails. The grade is practically level throughout a distance of 200 feet immediately north of the crossing.

A standard cross-buck railroad-crossing sign is located to the right of the direction of south-bound traffic 27 feet 11 inches north of the center-line of track No. 1. This sign is mounted on a mast 10 feet 8 inches above the level of Summit Avenue, and bears the words "RAILROAD CROSSING" in black on a white background. Another sign mounted on this mast 9 feet 5 inches above the level of Summit Avenue bears the words

"NO WATCHMAN ON DUTY 10.00 P M TO 6.00 A M", in black on a white background. A shielded receptacle for an oil-burning lantern is attached to this mast 8 feet above the level of Summit Avenue. It is so arranged that a red light placed in it is directly visible only to south-bound traffic on Summit Avenue. A warning bell mounted on a metal mast 8 feet 10 inches above the level of Summit Avenue is located 23 feet 7 inches north of the center-line of track No. 1 and to the right of the direction of south-bound traffic on the highway. A similar metal mast to which a warning bell and a standard cross-buck railroad-crossing sign is attached is located in the southeast angle of the intersection. The control circuits are so arranged that the warning bells sound when a west-bound train is occupying any portion of track No. 1 throughout a distance of 2,982 feet immediately east of the crossing. A crossing-whistle sign for west-bound trains is located 1,604 feet east of the crossing.

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

14. Engine Whistle Signals

Note.--The signals prescribed are illustrated by "o" for short sounds, "—" for longer sounds. * * *

* * *

SOUND

INDICATION

* * *

(1) — — o —

Approaching public crossings at grade. To be prolonged or repeated until crossing is reached.

* * *

(2). The engine bell must be rung * * * while * * * approaching and passing public road crossings at grade.

The maximum authorized speed for passenger trains in the vicinity of the point of accident is 75 miles per hour.

Description of Accident

No. 23, a west-bound first-class passenger train, consisted of engine 5316, a 4-6-2 type, one baggage car, one mail car, two baggage cars, one passenger-baggage car, one coach and two sleeping cars, in the order named. All cars were of steel construction. This train passed "CN" Tower, 19.41 miles east of the point of accident and the last open office, at 10 27 p. m., 2 minutes late, stopped at Silver Spring, Md., 14.21 miles east of the point of accident, and departed about 10 33 p. m., 2 minutes late. While moving on track No. 1 at a speed of 67 miles per hour, as indicated by the tape of the speed-recording device, it struck an automobile at the rail-highway grade crossing 70 feet west of the station at Gaithersburg.

The automobile involved was a 1949 Plymouth sedan. It bore Maryland license No. 591-796. At the time of the accident the vehicle was occupied by the driver and three passengers. This vehicle was moving southward on Summit Avenue at a speed of about 10 miles per hour when it entered the crossing and was struck by No. 23.

The pilot of the engine of No. 23 was broken. The automobile became wedged under the front end of the engine and elevated the right side of the engine truck. One wheel on the left side of the engine truck dropped to the ties 39 feet west of the crossing and continued in line with and about 10 inches north of the gauge side of the south rail of track No. 1 to the frog of the crossover, a distance of 248 feet. At this point the second pair of wheels of the engine truck was derailed. They continued in line with the rails to the frog of the turnout at the west end of the auxiliary track, a distance of 844 feet. The general derailment occurred about 10 feet west of the switch of the auxiliary track. At this point the engine, the tender, and the first seven cars were derailed. The engine and tender stopped on their right sides and on the north side of track No. 1, with the front end of the engine 1,836 feet west of the crossing. A separation occurred between the tender and the first car. The other cars remained coupled and stopped practically upright. The first five cars stopped in diagonal positions on or near both main tracks. The other derailed cars stopped in line with track No. 1. Track No. 1 was destroyed throughout a distance of 532 feet from the point where the general derailment occurred, and track No. 2 was destroyed throughout a distance of 135 feet. The engine, the tender, and the first five cars were badly damaged, and the next two cars were somewhat damaged. The automobile was demolished.

The engineer, the fireman, and the baggageman were injured.

It was raining at the time of the accident, which occurred about 10:51 p. m.

During the 30-day period preceding the day of the accident, the average daily movement over the crossing was 39.8 trains. During the 24-hour period beginning at 12:01 a. m., February 19, 1952, 1,787 automobiles and 392 trucks passed over the crossing.

Discussion

As No. 23 was approaching the point where the accident occurred, the speed was 67 miles per hour. The engineer and the fireman were maintaining a lookout ahead from their respective positions in the cab of the engine. The baggageman was in the baggage compartment of the fifth car, and the conductor and the flagman were in the rear car. The headlight was lighted brightly. The locomotive bell was ringing. The engineer said he began to sound the grade-crossing whistle signal as the train was approaching the crossing-whistle sign and he prolonged the signal until the engine reached the crossing. When the engine was about 150 feet east of the crossing the engineer observed the automobile approaching from the north. He said the speed of the automobile was about 10 miles per hour and he thought the automobile would stop north of the crossing. When the engine was about 20 feet east of the crossing the engineer became aware that the automobile was continuing to move southward and had entered upon the crossing. He immediately made an emergency application of the brakes. The fireman did not see the automobile.

All of the occupants of the automobile were killed. With the exception of the engineer, there was no surviving witness to the accident. The watchman at this crossing went off duty at 10 p. m. Before he left the crossing, he placed a lighted red lantern in the receptacle provided for that purpose on the mast of each crossing sign. Both lanterns were found to be lighted after the accident occurred. The watchman said that the warning bells sounded properly when an east-bound train passed the crossing at 9 58 p. m. The signal system was tested by a member of the signal force about 3 hours after the accident occurred. The warning bells were found to function properly

As a vehicle approaches the crossing from the north, the driver's view of an approaching west-bound train is materially restricted by several buildings located north of the tracks and east of Summit Avenue. From points on Summit Avenue 80 feet, 50 feet, 30 feet, and 20 feet north of track No. 1 the driver of a vehicle can obtain a view of an approaching west-bound train at distances of 3,000 feet, 78 feet, 234 feet, and 3,800 feet, respectively, east of the crossing.

Cause

It is found that this accident was caused by an automobile occupying a rail-highway grade crossing immediately in front of an approaching train.

Dated at Washington, D. C., this fourteenth day of April, 1953.

By the Commission, Commissioner Patterson.

(SEAL)

GEORGE W. LAIRD,
Acting Secretary.