INTERSTATE COMMERCE COMMISSION

WASHINGTON

INVESTIGATION NO. 2930

THE PENNSYLVANIA RAILROAD COMPANY

REPORT IN RE ACCIDENT

AT TIRO, OHIO, ON

SEPTEMBER 12, 1945

SUMMARY

Railroad:	Pennsylvania	
Date:	September 12, 1945	
Location:	Tiro, Ohio	
Kind of accident:	Collision	
Equipment involved:	Passenger train	: Automobile
Train number:	81	:
Engine number:	3682	:
Consist:	10 cars	:
Estimated speed:	70 m. p. h.	: Standing
Operation:	Timetable, train orders and automatic block-signal system	
Track:	Single; tangent; 0.66 percent descending grade northward	
Highway:	Tangent; crosses track at angle of 50°; level	
Weather:	Cloudy	
Time:	6:35 a. m.	
Casualties:	21 injured	
Cause:	Automobile becoming stalled on highway grade crossing	

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 2930

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

THE PENNSYLVANIA RAILROAD COMPANY

October 23, 1945.

Accident at Tiro, Ohio, on September 12, 1945, caused by an automobile becoming stalled on a highway grade crossing.

REPORT OF THE COMMISSION[1]

PATTERSON, Commissioner:

On September 12, 1945, there was a collision between a passenger train on the Pennsylvania Railroad and an automobile at a highway grade crossing at Tiro, Ohio, which resulted in the injury of 13 passengers, 1 railway-mail clerk, 5 dining-car employees and 2 train-service employees. This accident was investigated in conjunction with representatives of the Public Utilities Commission of Ohio.

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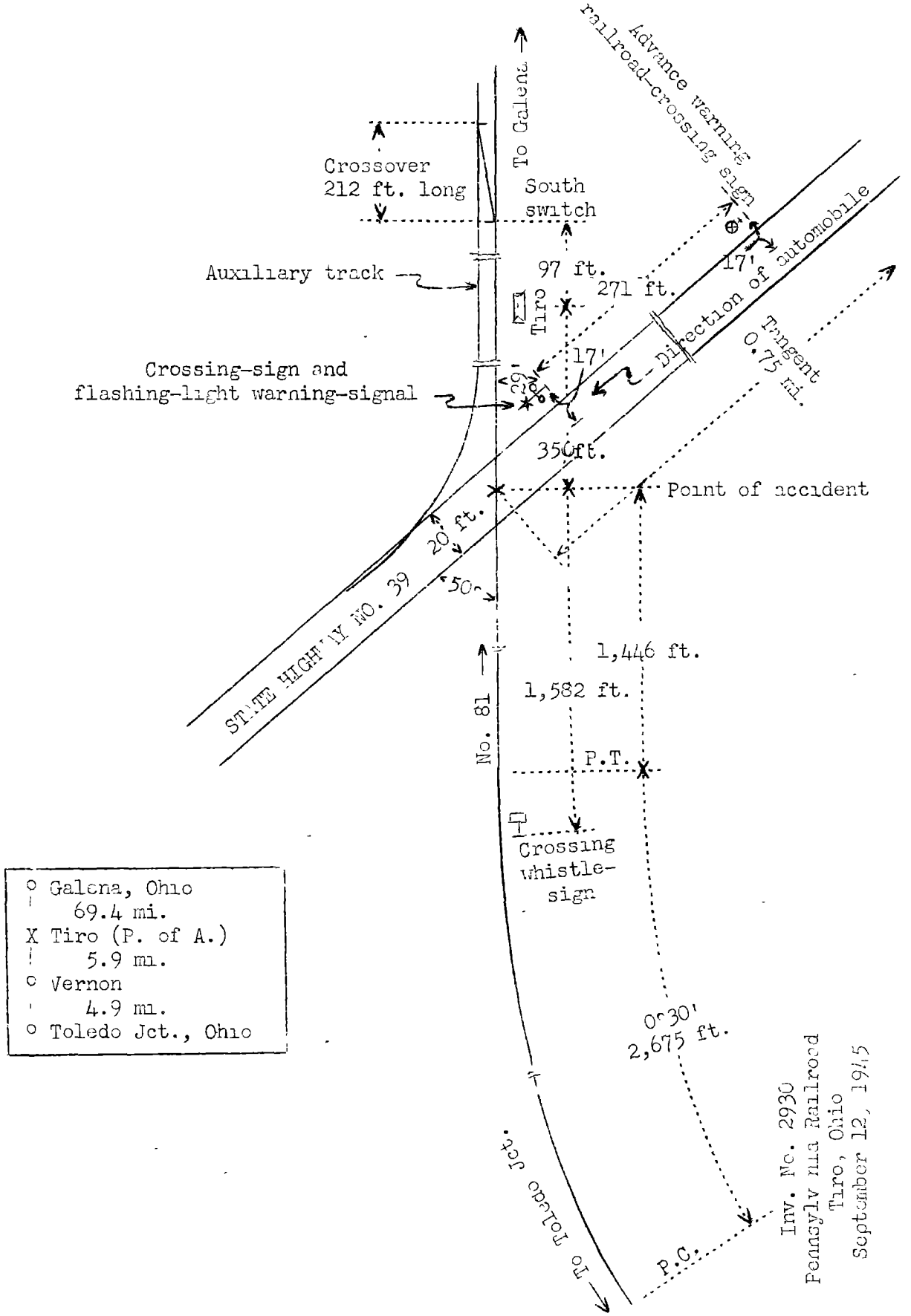
[1] Under authority of section 17 (2) of the Interstate Commerce Act the above-entitled proceeding was referred by the Commission to Commissioner Patterson for consideration and disposition.


To Galena
Advance warning railroad-crossing sign
Crossover 212 ft. long
South switch
Auxiliary track
97 ft.
271 ft.
17'
Direction of automobile
Tiro
Crossing-sign and flashing-light warning-signal
29'
20°
17'
Tangent 0.75 mi.
350ft.
Point of accident
20 ft.
50'
STATE HIGHWAY NO. 39
No. 81
1,446 ft.
1,582 ft.
P.T.
Crossing whistle-sign
o Galena, Ohio
69.4 mi.
X Tiro (P. of A.)
5.9 mi.
o Vernon
4.9 mi.
o Toledo Jct., Ohio
0°30'
2,675 ft.
To Toledo Jct.
P.C.
Inv. No. 2930
Pennsylvania Railroad
Tiro, Ohio
September 12, 1945

Location of Accident and Method of Operation

This accident occurred on that part of the Toledo Division extending between Toledo Jct. and Galena, Ohio, 80.2 miles, a single-track line in the vicinity of the point of accident, over which trains are operated by timetable, train orders and an automatic block-signal system. The accident occurred 10.8 miles north of Toledo Junction, at a point 350 feet south of the station at Tiro, where the railroad is crossed at grade by State Highway No. 39. The south switch of a facing-point crossover 212 feet long, which connects the main track and an auxiliary track located on the west side of the main track, is 97 feet north of the station. From the south on the railroad there is a 0°30' curve to the right 2,675 feet in length, which is followed by a tangent 1,446 feet to the point of accident and a considerable distance northward. The grade is 0.66 percent descending northward.

State Highway No. 39 intersects the railroad at an angle of 50°. The highway is tangent throughout a distance of 0.75 mile east of the crossing and a considerable distance westward. The grade is level. The crossing is about 20 feet wide and is surfaced with asphaltum. The level of the crossing between the rails is about 1 inch below the tops of the rails.

An advance warning railroad-crossing sign is located 300 feet east of the crossing and 17 feet north of the highway. This sign is a disc 28 inches in diameter, mounted on a mast and about 4 feet above the level of the highway. It bears two diagonal lines intersecting at right angles at its center, and bears the letters "R.R." in black and in colorless reflector buttons on a yellow background. A standard cross-buck railroad-crossing sign is located to the right of the direction of westbound traffic, 29 feet east of the track and 17 feet north of the highway. This sign is mounted on a mast 11 feet 4 inches above the level of the crossing, and bears the words "RAILROAD CROSSING" in black letters on a white background. A horizontal bar is mounted on the mast below the cross-buck sign, and a hooded lamp is attached to each end of this bar. The center of the lens of each lamp is 7 feet 10 inches above the level of the highway. When a north-bound train is occupying any portion of the main track within a distance of 3,042 feet immediately south of the crossing, the lamps flash red lights alternately. A crossing-whistle sign for north-bound trains is located 1,582 feet south of the crossing.

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, * * *

* * *

The maximum authorized speed for the train involved was 70 miles per hour.

Description of Accident

The automobile involved was a 1941 Plymouth two-door sedan, which bore Ohio license No. WY-403. The driver, who was the sole occupant, held operator's license No. A-302041. This automobile, moving westward on the highway, was passing over the crossing when the motor stalled. The vehicle stopped with the rear wheels between the rails of the track. About 2 minutes later the automobile was struck by No. 81, and was demolished.

No. 81, a north-bound first-class passenger train, consisted of engine 3682, one mail car, one passenger-baggage car, two coaches, one dining car, four Pullman sleeping cars and one Pullman lounge car, in the order named. All cars were of steel construction. This train passed Vernon, 5.9 miles south of Tiro and the last open office, at 6:31 a. m., 1 hour 17 minutes late, and while moving at an estimated speed of 70 miles per hour it struck the stalled automobile. Part of the wreckage lodged under the engine-truck wheels, which were derailed on the crossing. These wheels continued in line with the track 447 feet to the south crossover-switch, where the general derailment occurred.

The engine stopped on its right side, across the auxiliary track and at an angle of about 15 degrees to it, with the front end 417 feet north of the south crossover-switch. The first three cars stopped, practically upright, across the track and at right angles to it. The fourth to the seventh cars, inclusive, stopped practically upright, east of the track and in line with it. The front truck of the eighth car was derailed. The engine and the first car were badly damaged, and the second, third and fourth cars were considerably damaged.

It was cloudy at the time of the accident, which occurred about 6:35 a. m.

The engineer and the fireman were injured.

During the 30-day period preceding the day of the accident, the average daily movement over the crossing was 17.2 trains. During the 24-hour period beginning at 12:01 a. m., September 19, 1945, 590 automobiles, 91 trucks, 9 buses, 8 tractors and 19 trains passed over the crossing.

Discussion

The investigation disclosed that the automobile had stopped on the crossing about 2 minutes prior to the approach of No. 81. The driver said that a stop was made before the automobile entered upon the crossing, then, as no approaching train was seen or heard and the flashing-light warning-signal was not illuminated, he placed the gear-shift lever in position for first speed, and the automobile was driven upon the crossing. However, when the automobile was moving over the track, the motor stalled. The driver made several unsuccessful attempts to start the motor. Then he saw the reflection of the headlight of the approaching train, and had just alighted from the automobile when the collision occurred. Considering the speed of the train and the length of the controlling circuit of the flashing-light signal, the automobile was occupying the crossing at least 1-1/2 minutes before this signal began to be actuated. The driver of the automobile was an experienced driver and was familiar with the route. The motor had functioned properly prior to its failure immediately before the accident occurred.

No. 81 was approaching the crossing at a speed of about 70 miles per hour in territory where the maximum authorized speed was 70 miles per hour. The brakes had been tested and had functioned properly at all points where used en route. The headlight was lighted brightly and the enginemen were maintaining a lookout ahead. The whistle signal for the crossing was sounded in compliance with the rules. The first the enginemen were aware of anything being wrong was when the engine was about 200 feet south of the crossing, at which point the engineer saw a person running eastward from the crossing, but the enginemen did not see the stalled automobile prior to the collision. Then the engineer moved the brake valve to emergency position, but the general derailment occurred before the train could be stopped.

Cause

It is found that this accident was caused by an automobile becoming stalled on a highway grade crossing.

Dated at Washington, D. C., this twenty-third day of October, 1945.

By the Commission, Commissioner Patterson.

W. P. BARTEL,

(SEAL)

Secretary.