

INTERSTATE COMMERCE COMMISSION

WASHINGTON

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INVESTIGATION NO. 2748

THE NORFOLK SOUTHERN RAILWAY COMPANY

REPORT IN RE ACCIDENT

NEAR DENNY'S, VA., ON

NOVEMBER 28, 1943

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SUMMARY

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Railroad: Norfolk Southern  
Date: November 28, 1943  
Location: Dennys, Va.  
Kind of accident: Collision with motor-truck  
Equipment involved: Passenger train : Motor-truck  
Train number: Extra 104 North :  
Engine number: Rail-bus 104 :  
Consist: Rail-bus :  
Speed: 35-40 m. p. h. ; 35-40 m. p. h.  
Operation: Timetable and train orders  
Track: Double; tangent; 0.075 percent  
descending grade northward  
Highway: Tangent; crosses track at  
angle of 87°29'; level  
Weather: Clear  
Time: About 6:10 p. m.  
Casualties: 1 killed; 4 injured  
Cause: Motor-truck being driven upon  
highway grade crossing imme-  
diately in front of approaching  
train

INTERSTATE COMMERCE COMMISSION

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INVESTIGATION NO. 2748

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

THE NORFOLK SOUTHERN RAILWAY COMPANY

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January 22, 1944.

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Accident near Dennys, Va., on November 28, 1943, caused  
by motor-truck being driven upon highway grade  
crossing immediately in front of approaching train.

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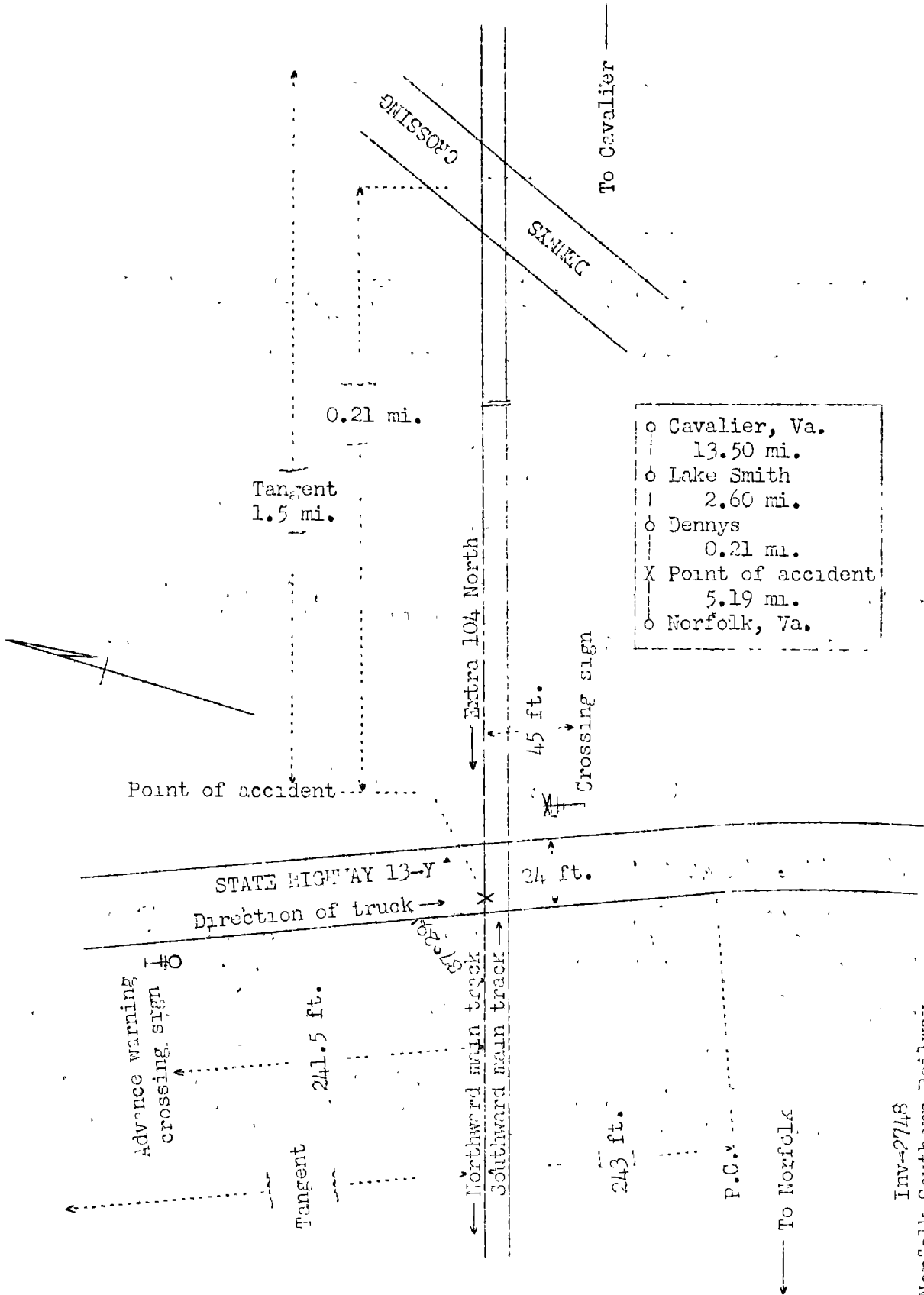
REPORT OF THE COMMISSION<sup>1</sup>

PATTERSON, Chairman:

On November 28, 1943, there was a collision between a motor-truck and a passenger train on the Norfolk Southern Railway at a highway grade crossing near Dennys, Va. The accident resulted in the death of one employee, and the injury of the driver of the motor-truck and three passengers.

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<sup>1</sup>Under authority of section 17 (2) of the Interstate Commerce Act the above-entitled proceeding was referred by the Commission to Chairman Patterson for consideration and disposition.



- o Cavalier, Va. 13.50 mi.
- o Lake Smith 2.60 mi.
- o Jennys 0.21 mi.
- X Point of accident 5.19 mi.
- o Norfolk, Va. 5.19 mi.

Inv-2748  
 Norfolk Southern Railway  
 Dennys, Va.  
 November 22, 1943

Location of Accident and Method of Operation

This accident occurred on that part of the Beach Division designated as the North Route and extending from Cavalier to Norfolk, Va., 21.5 miles. In the immediate vicinity of the point of accident this was a double-track line over which trains were operated by timetable and train orders. There was no block system in use. The accident occurred on the northward track at a point 0.21 mile west of Dennys where the railroad was crossed at grade by state highway 13-Y. The tracks at this point extended east and west, but a train moving westward was north-bound according to time-table directions. From the east on the railroad the track was tangent 1.5 miles to the point of accident and a considerable distance beyond. At this point the grade was 0.075 percent descending westward.

In the vicinity of the crossing, state highway 13-Y extended north and south and crossed the tracks at an angle of 87°29'. From the north the highway was tangent and level throughout a considerable distance to the crossing and 243 feet beyond. The crossing was 24 feet wide, surfaced with asphalt, and provided with 2-inch flangeways.

The crossing was protected by an advance warning highway-crossing sign located 241.5 feet north of the crossing and 3.5 feet west of the highway. This sign consisted of a 24-inch disc mounted on a post 8 feet 1 inch in height, and bore the letters "RR" in black on a white background. Immediately below the disc a rectangular sign, 1 foot 3 inches by 2 feet 4 inches, bore the words "200 FT. AHEAD - SLOW DOWN - 5 MILES - VIRGINIA LAW" in black on a white background. A standard cross-buck highway-crossing sign was mounted on a mast 10.5 feet in height located to the left of the direction of south-bound traffic, in the southeast angle of the crossing, 45 feet south of the center-line of the northward track and 5 feet east of the highway. This sign bore the words "LOOK LISTEN - RAILROAD CROSSING" in black on a white background, and below it there was a rectangular sign which bore the words "SLOW DOWN 5 MILES - VA. LAW." Immediately below this, a smaller sign bore the words "2 TRACKS."

Operating rules read in part as follows:

14. ENGINE AND MOTOR WHISTLE SIGNALS.

Note--The signals prescribed are illustrated by "o" for short sounds and "\_\_\_" for longer sounds. \* \* \*

SOUND.	INDICATION.
* * *	
(1) ___ __ o o	Approaching public crossings at grade.
* * *	

Chapter 265 of the 1934 Acts of Assembly of Virginia read in part as follows:

Section 84. Vehicles must slow down at certain steam railway grade crossings. -- (a) Except in cities and towns it shall be the duty of every person driving any vehicle on a highway, on approaching a place where a railway crosses such highway at grade, at which crossing no railway gates are maintained or no flagman is stationed and on duty at the time, to bring his vehicle to a speed not exceeding five miles per hour before passing over such crossing, at a distance of not less than fifty feet, from the nearest rail of such railway tracks; \* \* \*

\* \* \*

The maximum authorized speed for passenger trains was 50 miles per hour.

#### Description of Accident

Extra 104 North, a north-bound passenger train, consisting of rail-bus 104, departed from Lake Smith, 2.6 miles south of Dennys, at 6:03 p. m., and while moving at an estimated speed of 35 to 40 miles per hour it struck a motor-truck and was derailed.

The motor-truck involved was a tractor and semi-trailer owned by the White Motor Lines, Inc., Norfolk, Va., which was being operated under the authority of I.C.C. certificate MC-93224. The driver held Virginia license D-61920, which expires October 20, 1944. The tractor was a 1940, 12-cylinder, Model 30 Autocar, and bore Virginia license TX1-576. Its weight was 8,640 pounds and its wheelbase was 12 feet long. It was equipped with hydraulic brakes, a vacuum booster and dual tires on the rear wheels, and was provided with an enclosed steel cab. It was hauling a van type semi-trailer 18 feet in length, which had dual tires on its wheels. The weight of the trailer when empty was 8,120 pounds. The tractor and the semi-trailer had an overall length of 36 feet. At the time of the accident the semi-trailer was loaded with a cargo weighing 24,900 pounds. This vehicle, moving southward on highway 13-Y, proceeded upon the crossing at an estimated speed of 35 to 40 miles per hour, and the tractor was struck by Extra 104.

Throughout a distance of 472 feet on the highway immediately north of the tracks the driver of a south-bound vehicle can have an unobstructed view of a train approaching from the east a distance of 1,300 feet.

The tractor was overturned and stopped on its right side, practically demolished, about 50 feet west of the crossing and 10 feet south of the southward main track. The semi-trailer stopped on its right side, 50 feet west of the crossing, across both main tracks and at right angles to them. Rail-bus 104 was derailed to the south and stopped upright, across both main tracks, with its front end about 60 feet west of the center-line

of the crossing. The first marks of derailment were flange marks about 8 inches inside the north rail and 2 inches outside the south rail. These marks then veered sharply to the left into the southward main track, which was torn out a distance of about 60 feet. The front end of the rail-bus was demolished a distance of about 12 feet, and the right side was crushed inward throughout a distance of about 22 feet.

It was clear at the time of the accident, which occurred about 6:10 p. m.

The motorman of Extra 104 was killed.

During the 30-day period preceding the day of the accident, the average daily movement of trains over the crossing was 34.2. During the 24-hour period beginning at 12:30 p. m., December 2, 1943, 1,237 automobiles, 465 trucks, 54 busses, and 24 trains passed over the crossing.

According to data furnished by the railroad, rail-bus 104 was of lightweight construction, designed for single-unit operation, and was built in 1935. The front end-sill was semi-circular in shape to provide a streamline effect. Extending from the middle of the end-sill to the front body-bolster, 11 feet 1 inch, were two channel-shape members spaced 12 inches apart, which were 5 inches by 1-3/4 inches by 3/16 inch. There were two cross-bearers 5 inches by 1-3/4 inches by 3/16 inch between the front end and the front body-bolster. Two diagonal members extended from each end of the front body-bolster to the point where snort center-sills were attached to the end-sill. The side-sills were of steel-angle construction. The front end-posts and the side-posts were of U-shape pressed-steel construction. The side-sheets were of aluminum alloy. The car was 56 feet 7 inches in length, weighed about 41,000 pounds, and was divided into a baggage compartment and a passenger compartment. It had seating capacity for 53 persons. The flooring consisted of yellow pine 1-1/16 inches thick. The rail-bus was powered by a 176-horsepower gasoline motor mounted beneath the floor to the rear of the front body-bolster, and was supported by two special cross-beams. The front end was curved and was provided with six windows, so that the motorman had an unobstructed view ahead and to each side of the car. The control station was on the right side. The rail-bus was provided with schedule SME brake equipment having a safety-control feature.

#### Discussion

Extra 104 North was approaching the crossing at an estimated speed of 35 to 40 miles per hour in territory where the maximum authorized speed was 50 miles per hour. The horn was being sounded for the crossing in compliance with the rules. It is not known when the motorman first saw the approaching motor-truck, as he was killed in the accident. The front end of the rail-bus was so arranged that the motorman had an unobstructed view ahead and to each side. Several passengers seated immediately to the rear of the motorman saw the truck before it reached the crossing. The conductor thought the brakes were applied in emergency about 75 feet east of the crossing; however,

the passengers who saw the accident occur said there was no application of the brakes prior to the collision. The driver of a north-bound automobile which was about 250 feet south of the crossing at the time of the accident said that as the train approached the crossing the headlight was lighted and the horn was sounded almost continuously throughout a distance of about 800 feet east of the crossing. The brakes of the rail-bus had functioned properly en route. As a result of the impact between the lightweight rail-bus and the heavily loaded motor-truck, the rail-bus became derailed and the front end was demolished.

The driver of the motor-truck was an experienced driver and frequently had passed over the crossing. Throughout a distance of 472 feet immediately north of the tracks a driver of a south-bound vehicle had an unobstructed view to the east a distance of 1,300 feet. He said that as the motor-truck was approaching the crossing, the headlights were lighted, the windows were open, and he had an unobstructed view ahead and to either side. He reduced speed to 5 miles per hour and looked eastward. He did not see or hear the approaching train until his truck was about to proceed upon the northward track, then, observing the approaching train, he depressed the accelerator in an attempt to clear the crossing. He did not apply the brakes as he was fearful the cab of the tractor would stop immediately in front of the rail-bus. A number of passengers on the rail-bus and the occupant of the automobile near the crossing said that the speed of the motor-truck was 35 or 40 miles per hour as it approached the crossing and that it was not reduced prior to the collision. The laws of the Commonwealth of Virginia require that vehicles shall reduce speed to 5 miles per hour before they proceed upon a railroad track which is not protected by gates or a flagman. The crossing was protected by an advance warning sign and a standard cross-buck sign, both of which displayed the requirements as to the operation of a vehicle. If the motor-truck had been operated in compliance with the provisions of law, the driver would have had ample opportunity to see the approaching train in time to avert the accident.

#### Cause

It is found that this accident was caused by a motor-truck being driven upon a highway grade crossing immediately in front of an approaching train.

Dated at Washington, D. C., this twenty-second day of January, 1944.

By the Commission, Chairman Patterson.

(SEAL)

W. P. BARTEL,  
Secretary.