

INTERSTATE COMMERCE COMMISSION

WASHINGTON

INVESTIGATION NO. 2757

THE ATCHISON, TOPEKA & SANTA FE RAILWAY COMPANY

REPORT IN RE ACCIDENT

NEAR BERRY, ARIZ., ON

JANUARY 6, 1944

SUMMARY

Railroad: Atchison, Topeka & Santa Fe
Date: January 6, 1944
Location: Berry, Ariz.
Kind of accident: Collision with bus
Equipment involved: Freight train : Bus
Train number: Extra 119 West :
Engine number: Diesel-electric 119 :
Consist: 67 cars, cabooses :
Estimated speed: 45 m. p. h. : 2 m. p. h.
Operation: Automatic block-signal system
Track: Double; tangent; 0.48 percent ascending grade westward
Private crossing: Tangent; crosses track at angle of 83°17'15"; level
Weather: Clear
Time: 8:15 p. m.
Casualties: 28 killed; 8 injured
Cause: Bus being driven upon private-road grade crossing immediately in front of approaching train

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 2757

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

THE ATCHISON, TOPEKA & SANTA FE RAILWAY COMPANY

February 7, 1944.

Accident near Berry, Ariz., on January 6, 1944, caused by
a bus being driven upon a private-road grade crossing
immediately in front of an approaching train.

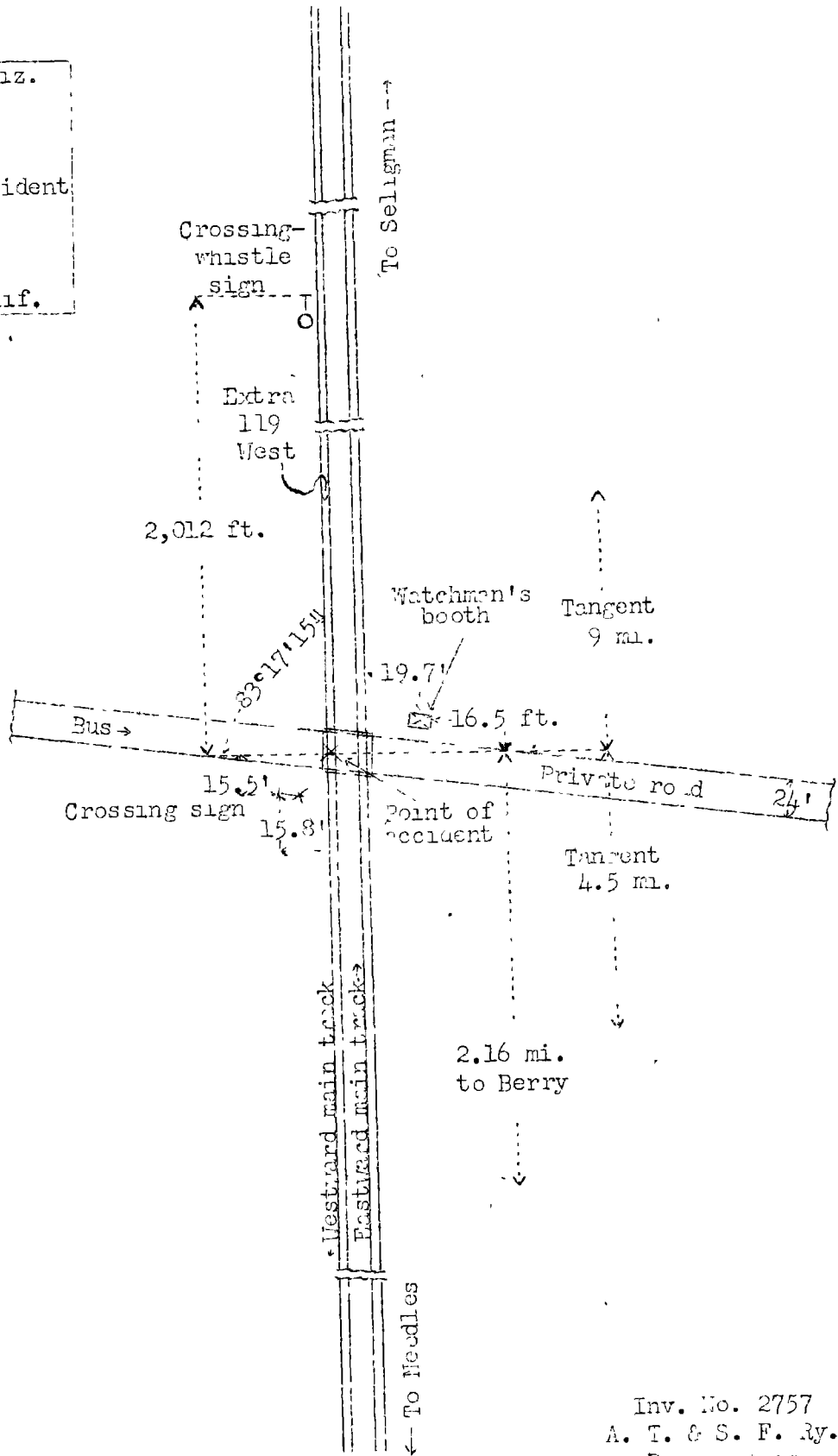
REPORT OF THE COMMISSION¹

PATTERSON, Chairman:

On January 6, 1944, there was a collision between a freight train of the Atchison, Topeka & Santa Fe Railway and a bus at a private-road grade crossing near Berry, Ariz., which resulted in the death of 27 bus passengers and the bus driver, and the injury of 8 bus passengers. This accident was investigated in conjunction with representatives of the Arizona Corporation Commission.

¹Under 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 Seligman, Ariz. 60.20 mi.
- o Hackberry 19.04 mi.
- X Point of accident 2.16 mi.
- o Berry, Ariz. 67.80 mi.
- o Needles, Calif.



Inv. No. 2757
 A. T. & S. F. Ry.
 Berry, Ariz.
 January 6, 1944

Location of Accident and Method of Operation

This accident occurred on that part of the Arizona Division designated as the First District and extending between Seligman, Ariz., and Needles, Calif., 149.2 miles. This was a double-track line over which trains moving with the current of traffic were operated by an automatic block-signal system, the indications of which superseded time-table superiority. The accident occurred on the westward main track 2.16 miles east of Berry where the railroad was crossed at grade by a private road. The tracks were tangent throughout a distance of about 9 miles east of this point and about 4.5 miles westward. The grade for west-bound trains varied between 0.27 percent and 0.48 percent ascending 3,800 feet to the crossing, and was 0.48 percent at that point.

The private road intersected the railroad at an angle of 83°17'15". The road was tangent throughout a distance of 1,500 feet north of the crossing and 1,500 feet southward. The grade for south-bound vehicles was, successively, level 1,400 feet, 2.85 percent ascending 100 feet to the crossing, level over the crossing, 0.97 percent descending 100 feet, and level 1,400 feet. The road and the crossing were 24 feet wide. The road was surfaced with asphalt, and the crossing was of plank construction.

A standard cross-buck railroad-crossing sign was located to the right of the direction of south-bound traffic, 15.8 feet north of the westward main track and 15.5 feet west of the road. This sign was mounted on a mast and bore the words "RAILROAD CROSSING - SANTA FE" in black letters on a white background. In addition, the crossing was protected continuously by a watchman. The watchman's booth was located in the southeast angle of the crossing, 19.7 feet south of the eastward main track and 16.5 feet east of the road. Approach indicators were not provided in the watchman's booth. A crossing-whistle sign for west-bound trains was located 2,012 feet east 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; and "_____" for extra long sounds. * * *

SOUND.

INDICATION.

* * *

(1) _____ o o

Approaching public crossings at grade, * * *; to be prolonged or repeated until passed.

* * *

Description of Accident

Extra 119 West, a west-bound freight train, consisting of Diesel-electric motor 119, of the 4-unit type, 67 cars and a caboose, passed Hackberry, 21.2 miles east of Berry and the last open office, at 7:34 p. m., and while moving at an estimated speed of 45 miles per hour it struck a bus at a private road crossing 2.16 miles east of Berry.

The bus involved was owned by the U. S. Army. It bore the letters "U. S. A.," and its number was 2096118. The driver held U. S. Army operator's permit No. 02-057-528. The bus was a 1-1/2-ton International K-5 model, equipped with dual tires on rear wheels, hydraulic brakes on all wheels, and a hand-operated brake on the drive shaft. It was 26 feet long, 7 feet 9 inches wide, and 9 feet 6 inches high, and had seating capacity for 29 passengers. The windshield and the side windows were so arranged that the driver had an unrestricted view ahead and to each side. This vehicle moved southward on the road at an estimated speed of 10 miles per hour, practically stopped a few feet north of the crossing, then proceeded upon the crossing at an estimated speed of 2 miles per hour and was struck by Extra 119 West.

A west-bound train approaching on the railroad could be seen by the driver of a south-bound vehicle throughout a distance of several miles.

The bus was demolished, and the wreckage stopped on the eastward main track 335 feet west of the crossing. Extra 119 was not derailed, and it stopped clear of the crossing with the front end of the engine about 3,800 feet west of the crossing. The front end of the first Diesel-electric unit was slightly damaged.

It was clear at the time of the accident, which occurred about 8:15 p. m.

During the 30-day period preceding the day of the accident, the average daily movement of trains over the crossing was 50.3. During the 24-hour period beginning at 8 p. m., January 5, 1944, 461 passenger cars and 402 trucks passed over the crossing.

Discussion

Extra 119 West was approaching the crossing at a speed of about 45 miles per hour. The headlight was lighted brightly, and both enginemen were maintaining a lookout ahead from the control compartment of the front Diesel-electric unit. The whistle signal for the crossing was sounded in compliance with the rules. The enginemen saw the approaching bus on the road 400 feet north of the crossing. When the front unit was about

200 feet east of the crossing the bus entered upon the crossing. The engineer immediately moved the brake valve to emergency position, but the collision occurred before the brakes became effective. The bus was demolished.

The crossing was protected by a cross-buck sign and a watchman. The watchman observed the train approaching about 2 miles distant, stationed himself just south of the eastward main track, and gave warning signals to vehicular traffic by swinging a lighted red lantern. The crossing was brightly lighted by the beam of light from the electric headlight of the approaching train. The bus practically stopped a few feet north of the westward main track, but just before the train reached the crossing the bus moved upon the crossing and was struck. The driver of the bus was an experienced driver, and prior to the accident he had made frequent trips over the crossing. He had taken charge of the bus at 6:30 p. m. The bus was found to be in good mechanical condition when it was placed in the motor pool about 1 hour before the driver involved took charge of it. A theory was advanced that the clutch assembly became defective a short time before the accident occurred, in such manner as to interfere with normal control of the bus. Although this assembly was found considerably bent after the accident, it could not be definitely established whether any part of the abnormal condition existed prior to the accident. All seats in the bus were occupied, and six persons were standing. As the bus approached the crossing, most of the occupants were singing. It could not be determined why the bus entered upon the crossing immediately in front of the approaching train, as the driver was killed in the accident, and the bus was destroyed.

Cause

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

Dated at Washington, D. C., this seventh day of February, 1944.

By the Commission, Chairman Patterson.

(SEAL)

W. P. BARTEL,
Secretary.