

INTERSTATE COMMERCE COMMISSION  
WASHINGTON

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INVESTIGATION NO. 2736  
THE ST. LOUIS SOUTHWESTERN RAILWAY COMPANY  
REPORT IN RE ACCIDENT  
NEAR MCCORMICK, ARK., ON  
OCTOBER 28, 1943

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SUMMARY

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Railroad: St. Louis Southwestern  
Date: October 28, 1943  
Location: McCormick, Ark.  
Kind of accident: Derailment  
Train involved: Freight  
Train number: Extra 309 North  
Engine number: 309  
Consist: 2 cars, caboose  
Speed: About 25 m. p. h.  
Operation: Train orders  
Track: Single; tangent; level  
Weather: Clear  
Time: 1:35 p. m.  
Casualties: 1 killed; 1 injured  
Cause: Excessive speed on track  
having irregular surface

INTERSTATE COMMERCE COMMISSION

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INVESTIGATION NO. 2736

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

THE ST. LOUIS SOUTHWESTERN RAILWAY COMPANY

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December 4, 1943.

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Accident near McCormick, Ark., on October 28, 1943, caused  
by excessive speed on track having irregular surface.

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

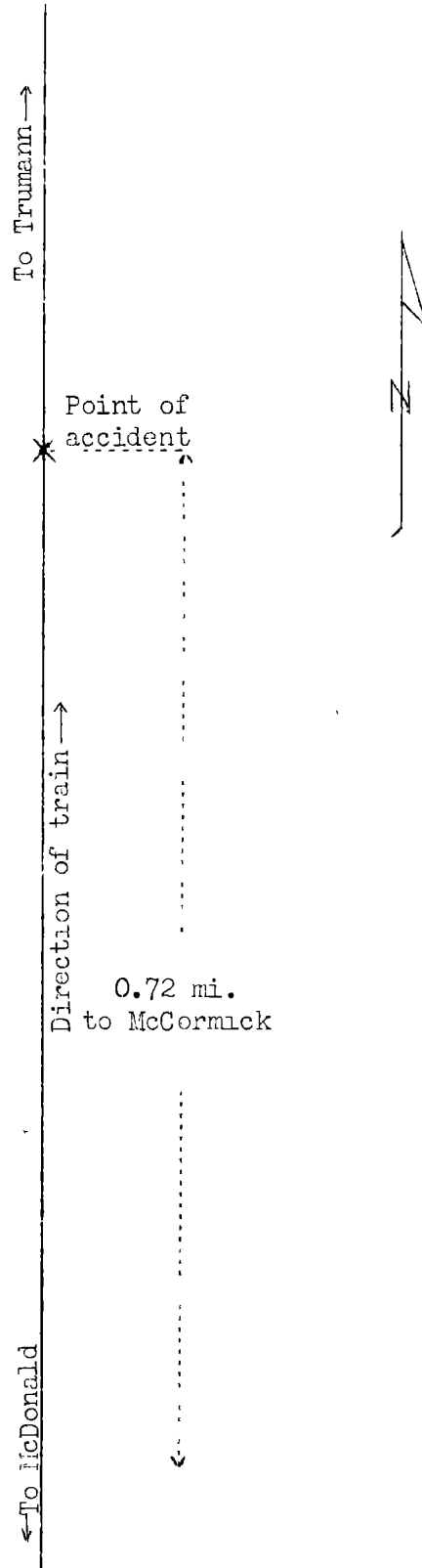
PATTERSON, Commissioner:

On October 28, 1943, there was a derailment of a freight train on the St. Louis Southwestern Railway near McCormick, Ark., which resulted in the death of one employee and the injury of one employee.

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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 Commissioner Patterson for consideration and disposition.

o	Trumann, Ark.
	7.22 mi.
X	Point of accident
	0.72 mi.
o	McCormick
	23.43 mi.
o	McDonald, Ark.



Inv. No. 2736  
 St. Louis Southwestern Railway  
 McCormick, Ark.  
 October 28, 1933

### Location of Accident and Method of Operation

This accident occurred on that part of the Northern Division extending between McDonald and Trumann, Ark., 31.37 miles. This was a single-track line over which trains were operated by train orders only. There was no block system in use. The accident occurred 0.72 mile north of McCormick. From the south the track was tangent throughout a distance of about 1.5 miles to this point and a considerable distance northward. The grade was practically level.

The track was laid on a fill, the maximum height of which was about 4 feet. The track structure consisted of 60-pound rail, 33 feet in length, laid in 1910 on 19 treated ties to the rail length. It was single-spiked and was ballasted with a mixture of gravel and clay to a depth of about 6 inches. Tie plates were not used.

The maximum authorized speed for freight trains hauled by engine moving backward was 15 miles per hour.

### Description of Accident

Extra 309 North consisted of engine 309, of the 2-6-0 type, headed southward, two cars and a caboose, in the order named. This train was moving on tangent track at a speed estimated by the crew as 10 to 12 miles per hour in territory where the maximum authorized speed was 15 miles per hour when it was derailed.

The tender, remaining coupled to the engine, stopped bottom side up, east of the track, at right angles to it, and about 135 feet north of the point of derailment. The engine stopped, badly damaged, on its left side, across the track and at an angle of about 15 degrees to it. The cars and the front truck of the caboose were derailed.

It was clear at the time of the accident, which occurred at 1:35 p. m.

The engineer was killed and the fireman was injured.

The total weight of engine 309 in working order was 159,000 pounds, distributed as follows: Engine truck, 21,000 pounds; driving wheels, 138,000 pounds. The tender was rectangular in shape and was equipped with two 4-wheel trucks. Its capacity was 5,500 gallons of water and 26,000 pounds of coal. The weight of the tender loaded was 131,800 pounds. Because of damage to the engine, the position of the throttle, the reverse lever and the brake valves at the time of the accident could not be determined. There was no indication of defective condition of the engine prior to the accident.

After the accident, measurements of the track between points 306.7 feet and 9.7 feet south of the point of accident were as follows:

Distance south of point of accident <u>Feet</u>		<u>Surface</u>			<u>Gage</u>	
					<u>Feet</u>	<u>Inches</u>
306.7		Level			4	8-3/8
290.2	West rail	1/4 inch	low		4	8-3/8
273.7	East rail	1/2 inch	low		4	8-3/4
257.2		Level			4	8-1/2
240.7	East rail	1/4 inch	low		4	8-1/2
224.2	East rail	1/4 inch	low		4	8-3/8
207.7	East rail	1/4 inch	low		4	8-1/2
191.2	East rail	1/2 inch	low		4	8-1/2
174.7	East rail	1- inch	low		4	8-3/8
158.2	West rail	1/4 inch	low		4	8-1/2
141.7	West rail	1/4 inch	low		4	8-1/2
125.2		Level			4	8-1/2
108.7	East rail	1- inch	low		4	8-5/8
92.2		Level			4	8-1/2
75.7	West rail	3/4 inch	low		4	8-1/2
59.2	West rail	1-1/4 inches	low		4	8-3/8
42.7	West rail	1-3/4 inches	low		4	8-1/2
26.2	West rail	1-1/4 inches	low		4	8-3/8
9.7	West rail	1/2 inch	low		4	8-1/2

### Discussion

Extra 309 North was moving with the engine in backward motion on tangent track in territory where the maximum authorized speed was 15 miles per hour, when the engine, its two cars and the front truck of the caboose were derailed.

As the train was approaching the point where the accident occurred, the enginemen were maintaining a lookout ahead. The air brakes had functioned properly en route and the engine had been riding smoothly. The fireman said his first knowledge of anything being wrong was when he saw the tender sway and lurch to the left, and immediately afterward the tender was derailed to the right. It could not be determined when the engineer first became aware of anything being wrong, as he was killed in the accident. The conductor and the brakemen were in the caboose and their first knowledge of anything being wrong was when the derailment occurred. There was no defective condition of the engine prior to the accident, and there was no indication of dragging equipment, nor of any obstruction having been on the track.

Beginning at a point 9.7 feet south of the point of derailment and continuing to the point of derailment, a flange mark appeared on the top of the head of the east rail. It extended diagonally from the inner corner to the outer corner of the head. Extending northward from the north end of this mark 29.5 feet, the ties bore wheel marks outside the east rail and inside the west rail. Immediately north of this point the track was torn up a distance of 165 feet. After the accident, measurements of approximately 300 feet of track immediately south of the point of accident disclosed that the surface varied from 1 inch low on the east rail to 1-3/4 inches low on the west rail. The gage varied between 4 feet 3-5/8 inches and 4 feet 8-5/8 inches.

No member of the crew estimated the speed at the time of the derailment as more than 12 miles per hour; however, officials of the carrier were of the opinion that the speed was 25 or 30 miles per hour. Considering the manner in which the engine and tender turned over and the distance they moved after they turned over, it appears that the speed was considerably higher than 12 miles per hour. The irregular surface of the track caused the tender to roll sufficiently for the flange of a wheel on the east side of the tender to mount the east rail.

The track foreman last inspected the track in this vicinity about 5 hours prior to the occurrence of the accident, and no unusual condition was observed. The territory under his supervision consisted of approximately 32 miles of main track, which he was required to maintain with a force of six men. No work had been performed on the track in the vicinity of the point of derailment for several months. He considered the track safe for the authorized speed.

#### Cause

It is found that this accident was caused by excessive speed on track having irregular surface.

Dated at Washington, D. C., this fourth day of December, 1943.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,

Secretary.