

INTERSTATE COMMERCE COMMISSION

WASHINGTON

REPORT NO. 3709

THE BALTIMORE AND OHIO RAILROAD COMPANY

IN RE ACCIDENT

NEAR HANCOCK, W. VA., ON

OCTOBER 1, 1956

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SUMMARY

Date: October 1, 1956

Railroad: Baltimore and Ohio

Location: Hancock, W. Va.

Kind of accident: Derailment

Train involved: Freight

Train number: Extra 833 East

Locomotive number: Diesel-electric units 833, 825X, and 825

Consist: 90 cars, cabooses

Speed: 47 m. p. h.

Operation: Signal indications

Tracks: Three; 0°30' curve; 0.22 percent descending grade eastward

Weather: Clear

Time: 7:36 p. m.

Casualties: 1 killed

Cause: Irregularities in surface and alignment of track

INTERSTATE COMMERCE COMMISSION

REPORT NO. 3709

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

THE BALTIMORE AND OHIO RAILROAD COMPANY

November 16, 1956

Accident near Hancock, W. Va., on October 1, 1956, caused
by irregularities in the surface and alinement of
the track.

REPORT OF THE COMMISSION¹

CLARKE, Commissioner:

On October 1, 1956, there was a derailment of a freight
train on the Baltimore and Ohio Railroad near Hancock, W. Va.,
which resulted in the death of one trespasser.

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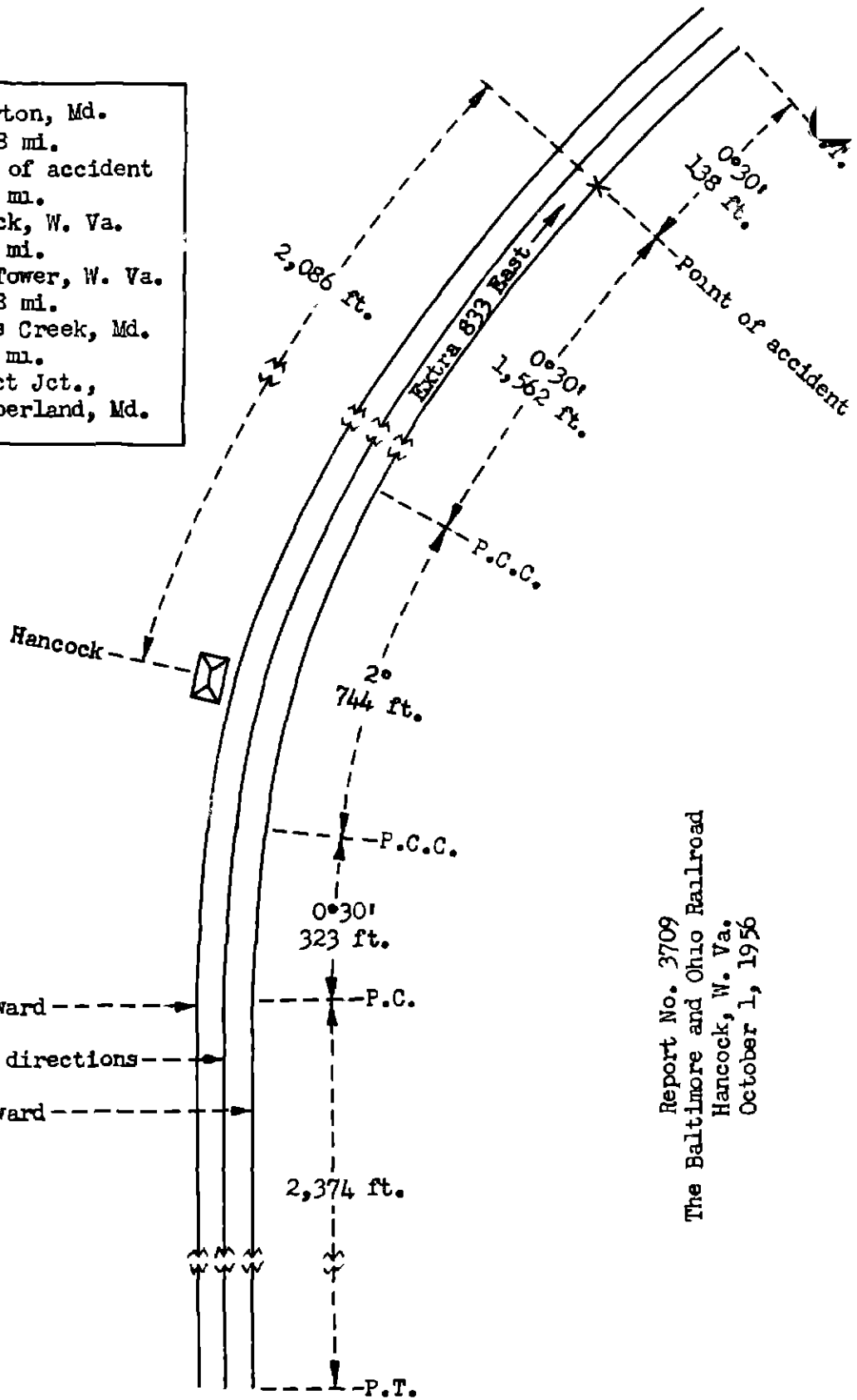
Under authority of section 17 (2) of the Interstate Com-
merce Act the above-entitled proceeding was referred by the
Commission to Commissioner Clarke for consideration and
disposition.

To Weverton →

- Weverton, Md.
44.8 mi.
- X Point of accident
0.4 mi.
- Hancock, W. Va.
0.1 mi.
- H.O. Tower, W. Va.
52.8 mi.
- Ewitts Creek, Md.
3.0 mi.
- Viaduct Jct.,
Cumberland, Md.

→ To Viaduct Jct.

- No. 1, westward →
- No. 3, both directions →
- No. 2, eastward →



Report No. 3709
The Baltimore and Ohio Railroad
Hancock, W. Va.
October 1, 1956

Location of Accident and Method of Operation

This accident occurred on that part of the Cumberland Division extending between Viaduct Jct., Cumberland, Md., and Weverton, Md., 100.1 miles. In the vicinity of the point of accident this is a three-track line. From north to south the tracks are designated as No. 1, westward; No. 3, both directions; and No. 2, eastward. Trains moving with the current of traffic on tracks Nos. 1 and 2, and trains moving in either direction on track No. 3, are operated by signal indications. The initial derailment occurred on track No. 2 at a point 56.3 miles east of Viaduct Jct. and 2,086 feet east of the station at Hancock, W. Va., and the general derailment occurred 702 feet farther eastward. From the west on track No. 2 there is a tangent 2,374 feet in length and a compound curve to the right consisting of a 0°30' curve 323 feet, a 2°00' curve 744 feet, and a 0°30' curve 1,562 feet to the point of initial derailment and 138 feet eastward. The grade is 0.22 percent descending eastward at the point of accident.

In the vicinity of the point of accident the track structure of track No. 2 consists of 131-pound rail, 39 feet in length, laid new in 1944 on an average of 22 ties to the rail length. It is fully tieplated with double-shoulder tie plates, spiked with two plate-holding spikes and two rail-holding spikes per tie plate, and is provided with 6-hole 36-inch joint bars and an average of eight rail anchors per rail. It is ballasted with stone to a depth of 10 inches below the bottoms of the ties.

The maximum authorized speed for freight trains in the vicinity of the point of accident is 50 miles per hour.

Description of Accident

Extra 833 East, an east-bound freight train, consisted of Diesel-electric units 833, 825X, and 825, coupled in multiple-unit control, 90 cars, and a caboose. This train entered the main track from Cumberland Yard at Evitts Creek, Md., 3.0 miles east of Viaduct Jct., at 6:23 p. m. and passed HO Tower, W. Va., 55.8 miles east of Viaduct Jct., at 7:35 p. m. While it was moving on track No. 2 at a speed of 47 miles per hour, as indicated by the tape of the speed-recording device, the front wheels of the fiftieth car were derailed at a point 3,312 feet east of HO Tower and 2,086 feet east of the station at Hancock. The other wheels of the fiftieth car, and the fifty-first to the sixty-eighth cars, inclusive, were derailed at a point 702 feet farther eastward.

The derailed cars stopped in various positions on or near the tracks throughout a distance of 351 feet. Six of the derailed cars were destroyed, 11 were badly damaged, and 2 were slightly damaged.

The trespasser who was killed was riding in the sixtieth car.

The weather was clear at the time of the accident, which occurred about 7:36 p. m.

B. & O. 322933, the fiftieth car of Extra 833 East, was an all-steel hopper car built in 1921. It was 31 feet 2-1/2 inches in length over the end sills, 10 feet 3/4 inch in width, and 10 feet 6 inches in height. The side bearings were of the tip-roller type. The light weight, nominal capacity, and load limit were, respectively, 38,400 pounds, 100,000 pounds, and 130,600 pounds. At the time of the accident the car was loaded with approximately 100,000 pounds of coal.

Discussion

As Extra 833 East was approaching the point where the accident occurred the enginemen and the front brakeman were in the control compartment at the front of the locomotive. The conductor and the flagman were in the caboose. The members of the crew said that there had been no unusual slack action in the train at any time during the trip and that they noticed no unusual track condition in the vicinity of the point of accident. They first became aware that anything was wrong when the brakes became applied in emergency as a result of the derailment. The engineer said that the throttle was open at the time the accident occurred and that he had not used the brakes for some time prior to the time of the accident.

Examination of the track after the accident occurred disclosed that the first mark of derailment was a flange mark on the top of the head of the north rail. This mark extended diagonally a distance of 36 feet from the gage side of the rail to the outside of the rail. The west end of this flange mark was very light throughout a distance of 6 feet. The remainder of the mark was heavy. East of the flange mark on the rail, marks on the ties indicated that a pair of wheels had become derailed to the north. The marks indicated that the wheels had veered to the north until the south wheel was approximately 1 foot 9 inches south of the north rail and had then moved parallel to the track to the point at which the general derailment occurred.

Examination of the equipment after the accident occurred disclosed that the front wheels of the front truck of B. & O. 322933, the fiftieth car of the train, were the first to become derailed. Two rockers from the body-bolster side-bearings of this car were found between the point at which the wheels became derailed and the point of general derailment. Marks on the center sill and corresponding marks on the back of the flange of the right front wheel indicated that the wheel had been in contact with the center sill while the car moved a considerable distance after the front wheels became derailed. The right front wheel was moved inward on the axle a distance of 1-7/16 inches, but it was determined that this occurred as a result of the derailment. The flange marks on the ties indicated that the wheels were in proper gage when they first became derailed. No condition of the truck was found which could have caused or contributed to the cause of the derailment. Both trucks were displaced from the car during the derailment, and the body bolsters were bent and twisted to the extent that the side bearing clearance which existed prior to the time of the accident could not be determined. The side bearings were sheared off the body bolsters of the car, and the side-bearing block had been displaced from the pocket on one end of the truck bolster of the front truck. With the exception of the two rockers which were found, the missing parts of the side bearings were not recovered. This car was loaded at Cumberland. It was inspected by members of the car department of the carrier both before and after it was loaded and was found to be suitable for service.

Measurements of the track immediately west of the point of initial derailment were as follows:

<u>Distance west of point of derailment</u>	<u>Superelevation under load</u>	<u>Gage</u>		<u>Curvature</u>
<u>Feet</u>	<u>Inches</u>	<u>Feet</u>	<u>Inches</u>	<u>Degrees</u>
292.5	2-1/2	4	8-3/8	1°00'
273.0	2-1/4	4	8-1/2	0°45'
253.5	3	4	8-3/8	0°30'
234.0	2-3/4	4	8-3/8	0°15'
214.5	3	4	8-3/8	0°38'
195.0	2-3/8	4	8-1/2	0°45'
175.5	2-3/8	4	8-3/8	1°00'
156.0	2-1/4	4	8-1/2	0°45'
136.5	2-5/8	4	8-1/2	0°45'
117.0	2-3/8	4	8-3/8	0°45'
97.5	2	4	8-1/2	1°23'

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78.0	1-3/4	4	8-1/2	1°30'
58.5	2-1/2	4	8-3/8	0°45'
39.0	2-1/2	4	8-1/2	0°30'
19.5	2-1/2	4	8-1/2	0°53'
0.0	1-7/8	4	8-5/8	1°00'

Of 218 ties immediately west of the point of derailment, more than half were center-bound to some extent. Four of these ties were broken between the rails. From the manner in which the accident occurred, it appears that the variations in the alinement and cross level of the track west of the point of accident, together with the center-bound condition, were sufficient to cause an accelerated rocking of the fiftieth car of the train to the extent that the flange of the left front wheel was raised to the top of the rail.

The track in the vicinity of the point of accident was last inspected by the section foreman on September 28, 3 days before the accident occurred. At that time he found no condition which he considered as requiring immediate attention.

Cause

This accident was caused by irregularities in the surface and alinement of the track.

Dated at Washington, D. C., this sixteenth day of November, 1956.

By the Commission, Commissioner Clarke.

(SEAL)

HAROLD D. McCOY,
Secretary.