

**RAILROAD ACCIDENT INVESTIGATION**

**Report No 4009**

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THE BALTIMORE AND OHIO RAILROAD COMPANY

WEBSTER, IND

MAY 2, 1964

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**INTERSTATE COMMERCE COMMISSION**

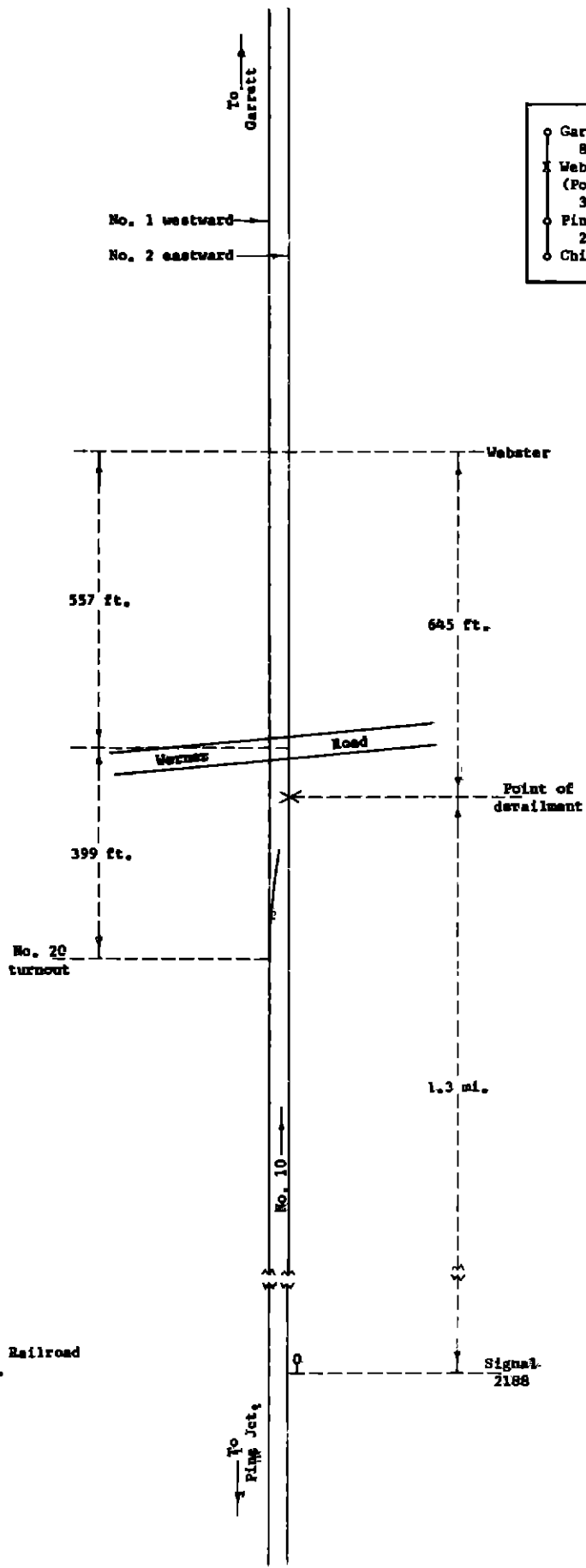
**Washington**

<b>DATE</b>	May 2, 1964
<b>RAILROAD</b>	Baltimore and Ohio
<b>LOCATION</b>	Webster, Ind
<b>KIND OF ACCIDENT</b>	Derailment
<b>TRAIN INVOLVED</b>	Passenger
<b>TRAIN NUMBER</b>	10
<b>LOCOMOTIVE NUMBERS.</b>	Diesel-electric units 1451, 1411, 1436
<b>CONSIST</b>	10 cars
<b>SPEED.</b>	79 m p h
<b>OPERATION</b>	Signal indications
<b>TRACKS</b>	Double, tangent, level
<b>WEATHER</b>	Clear
<b>TIME</b>	12 18 p m
<b>CASUALTIES</b>	87 injured
<b>CAUSE</b>	Failure to provide protection for movement of trains over skeletonized track
<b>RECOMMENDATION.</b>	That the Baltimore and Ohio Railroad Company take necessary measures to provide additional protection by issuance of slow orders and placement of speed restriction signs when track conditions require their use for safe operation of trains



Third to tenth cars (left to right) of No 10

- Garrett, Ind. 89.3 mi.
- × Webster (Point of derailment) 31.7 mi.
- Pins Jct., Ind. 29.8 mi.
- Chicago, Ill.



The Baltimore and Ohio Railroad  
 Webster, Ind.  
 May 2, 1964

To  
 Pins Jct.,

**INTERSTATE COMMERCE COMMISSION****SAFETY AND SERVICE BOARD NO 1**

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**RAILROAD ACCIDENT INVESTIGATION**

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**THE BALTIMORE AND OHIO RAILROAD COMPANY**

**MAY 2, 1964**

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**SYNOPSIS**

About 12 18 p m , May 2, 1964, ten cars of a Baltimore and Ohio Railroad passenger train derailed at Webster, Ind. The front brakeman, the flagman, 72 passengers, 5 railway post office employees, and 8 train attendants were injured.

The accident was caused by failure to provide protection for movement of trains over skeletonized track.

**Location and Method of Operation**

This accident occurred on that part of the Akron-Chicago Division of the Baltimore and Ohio Railroad extending between Pine Jct and Garrett, Ind., 121 miles. At the time of the accident this was a double-track line in the area involved. The main tracks were designated as No 1 westward, and No 2 eastward. Trains moving with the current of traffic were operated by signal indications of an automatic block-signal system.

The derailment occurred on track No 2 about 31 7 miles east of Pine Jct and 645 feet west of Webster.

Details of the track structure, the train involved, the resultant damages, and the carrier's maintenance-of-way rules are shown in the appendix.

Werner Road, a county dirt road, crosses the main tracks at grade 557 feet west of Webster

A No 20 turnout diverges southward from track No 1 at Webster as shown in the sketch at the front of this report. The turnout switch is trailing point for westbound movements on track No 1 and is 399 feet west of the road crossing. This turnout was not in service at the time of the accident and was not connected.

### Description and Discussion

No 10, an eastbound passenger train consisting of three diesel-electric units and ten cars, left Chicago, Ill., 29.4 miles west of Pine Jct., at 10:45 a.m., on time and passed Pine Jct. about one hour later. About 12:17 p.m., it passed signal 2188, which displayed a Clear aspect and approximately one minute later, while moving on track No 2 at 79 miles per hour, as indicated by the speed-recording tape, all ten cars derailed a short distance west of the Werner Road crossing at Webster. Eighty-seven persons were injured. The engineer and fireman did not see any irregularities in the track structure as the train approached the derailment point. They and the other crew members were unaware of anything wrong until the cars derailed. Crew members said they made observations of the train while en route from Chicago and saw no indication of defective equipment before the derailment.

Examination of track No 2 disclosed the derailment occurred about 88 feet west of the Werner Road crossing. The track structure was destroyed or heavily damaged throughout a distance of about 500 feet.

Between points  $1\frac{3}{4}$  miles and 1 mile west of the derailment point, an average of only three rail anchors per rail were found on track No 2. There were no rail anchors on this track between points 1 mile and 105 feet west of the derailment point. Track spikes at rail joints were bent eastward. Marks on rail bases indicated the rails had moved approximately 9 inches eastward. From 105 feet west to 30 feet east of the derailment point, there was no ballast in the tie cribs.

The investigation disclosed that at the time of the derailment, the carrier had almost completed preparations for converting that part of the double-track line between Webster and Suman, 9.3 miles west of Webster, to a single-track line over which trains were to operate in either direction by signal indications of a traffic control system. Beginning May 4th, track No 1 between Suman and the No 20 turnout at Webster would be the main track of the single-track line. On the same day, the west end of the skeletonized portion of track No 2 at Webster would be connected to the single-track line at the east end of the No 20 turnout for movement of eastbound trains from the single-track line to the double-track line.

On March 30th, in preparation for the conversion to single-track operation, a track supervisor instructed the foreman of an extra track force to remove one-half of the rail anchors from track No 2 between the No 20 turnout at Webster and a point about  $2\frac{3}{4}$  miles westward. In addition, he instructed the track foreman to apply these rail anchors to track No 1 in such manner as to anchor the rails against eastward longitudinal movement. The foreman, however, misunderstood

the supervisor's instructions and instructed the members of the extra track force to remove all the rail anchors from track No 2. By April 2nd, all rail anchors had been removed approximately 1¼ miles westward. This work was then discontinued. The foreman of the extra track force said he thought the portion of track No 2 without rail anchors would be safe for the operation of trains until May 4th.

On April 8th, crew members of an eastbound train reported a broken rail in track No 2 about one mile west of Webster. The track supervisor proceeded to this point and, instead of a broken rail, found that joints of track No 2 had pulled apart. He also discovered the extra track force had removed all the rail anchors from track No 2 in this area. He then instructed the foreman of another track force to repair track No 2 where the joints had pulled apart. Later the same day he instructed the foreman to reapply an average of three rail anchors per rail to the adjacent portion of track No 2. The members of this track force reapplied rail anchors on track No 2 between points approximately 1¼ miles and 1 mile west of the No 20 turnout at Webster and did not return to this area prior to the accident. The track force foreman knew that no rail anchors were applied to track No 2 throughout a considerable distance west of the No 20 turnout at Webster. He said the track supervisor instructed him to inspect this portion of track No 2 for excessive rail expansion at every opportunity after April 8th. He said that when he did so, he observed the rails of track No 2 had moved slightly eastward and westward but he did not take any exception to the condition of the track.

The track supervisor said that later in April, he instructed the foreman of a third track force to remove ballast from a short section of track No 2 at Webster preparatory to throwing the track in the conversion to single-track operation on May 4th. On April 29th, this track force removed all the ballast from the tie cribs of track No 2 throughout a distance of 135 feet east of the east end of the out-of-service No 20 turnout in track No 1. After the ballast was removed from the tie cribs, the track force applied rail anchors at all the ties of the skeletonized portion of track No 2 and at the ties eastward to the Werner Road crossing. On the following days prior to the accident, this track force worked at locations other than Webster. The foreman did not think it necessary to arrange for slow orders affecting movements over the portions of track No 2 without rail anchors or ballast in the tie cribs.

The track supervisor said that on May 1st, he instructed a track patrol foreman to pay particular attention to that section of track No 2 without rail anchors or ballast in the tie cribs. This foreman said, however, he only received instructions to pay particular attention to that part of track No 2 without ballast in the tie cribs. On May 1st, he patrolled both the section of the track without ballast in the tie cribs and the section without rail anchors, and took no exceptions to the condition of the track.

Examination of records disclosed that throughout a considerable period prior to May 1st, the weather in the area of Webster was cool. A warming trend set in on May 1st and at midnight, the temperature was 55 degrees. It was 60 degrees at 8 00 a m, May 2nd, and 73 degrees at the time of the accident.

### **Findings**

It is evident that due to eastward traffic, rising temperatures, and lack of rail anchors, the rails of track No 2 moved longitudinally eastward and were under excessive compression throughout a considerable distance west of the area where the ballast had been removed from the tie cribs at Webster. As the train closely approached Webster, the excessive compression resulted in the unsecured, skeletonized track buckling under the train.

Although track No 2 in the Webster area was evidently insecure as a result of the removal of the rail anchors and ballast from the tie cribs, and track supervisory personnel of the carrier were aware of the absence of rail anchors and ballast, no action was taken to provide protection for the movement of trains over this portion of track No 2. Had arrangements been made to provide train crews with slow orders as prescribed by the rules, the accident probably would have been averted or minimized.

### **Cause**

This accident was caused by failure to provide protection for movement of trains over skeletonized track.

### **Recommendation**

It is recommended that the Baltimore and Ohio Railroad Company take necessary measures to provide additional protection by issuance of slow orders and placement of speed restriction signs when track conditions require their use for safe operation of trains.

Dated at Washington, D C , this twentieth  
day of October, 1964

By the Commission, Safety and Service Board No 1

(SEAL)

HAROLD D McCOY,

Secretary



## Appendix

### Track Structure.

The tracks are tangent and the grade is practically level throughout a considerable distance east and west of Webster. In this vicinity, the structure of track No. 2 consists of 131-pound rail, 39 feet in length, laid new in 1942 on an average of 24 treated ties to the rail length. It is fully tie plated with double-shoulder tie plates, spiked with two rail-holding and two plate-holding spikes per tie plate, and is provided with 6-hole 3/8-inch joint bars. It is normally provided with an average of ten rail anchors per rail, and is ballasted with stone to a depth of six inches below the tie bottoms.

Signal 2188, governing eastbound movements on track No. 2, is located 1.3 miles west of the derailment point.

### Train Involved and Resultant Damages

No. 10 was an eastbound first-class passenger train. It consisted of car-body type diesel-electric units 1451, 1411 and 1436, coupled in multiple-unit control, 2 baggage cars, 1 railway post office car, 1 baggage car, 3 coaches, 1 dining car, 1 sleeping car and 1 slumber-coach, in that order. The cars were of all-steel construction, and the 9th and 10th cars were equipped with tight-lock couplers. As this train approached the derailment point, the engineer and fireman were in the control compartment at the front of the first diesel-electric unit. The conductor, front brakeman, and flagman were at various locations in the cars. The brakes had been tested and had functioned properly when used en route.

All ten cars of the train derailed at Webster, but the locomotive units were not derailed. A separation occurred between the second and third cars. The locomotive with the first two cars stopped 2,197 feet east of the derailment point. The remaining portion of the train stopped with the front end 573 feet east of the derailment point. The first and second cars, which remained coupled to the locomotive, stopped upright, in leaning positions, on and in line with the structure of track No. 2. The other eight cars derailed to the south and stopped upright, in line, adjacent to or on the structure of track No. 2 as shown in the photograph at the front of this report. The first, second and tenth cars were slightly damaged. The other seven cars were considerably damaged.

Examination of the train equipment after the accident disclosed no defective condition which could have caused or contributed to the cause of the derailment.

### Pertinent Carrier Rules Governing the Maintenance of Way Department

#### ***FLAGGING AND PROTECTION AGAINST OBSTRUCTIONS***

120. Any work that interferes with the safe passage of trains at scheduled speed is an obstruction, and the track must be fully protected in all directions.

**SLOW ORDERS**

140 When track conditions are such that the scheduled speed of trains cannot be maintained, the Superintendent must be notified by wire, \* \* \* so that the necessary train order may be issued. Action must be taken to restore normal conditions and raise the speed limit or annul the train order. In the meantime the proper protection must be maintained.

**ANTICREEPERS**

970 On main track, rail generally creeps in the direction of heaviest traffic, \* \* \*

971 A sufficient number of anticreepers shall be used to prevent rail creeping \* \* \*

974 Anticreepers must be kept tight and frequently inspected to see that they are securely fastened to the rail and have a solid bearing against the ties.

**BALLAST**

1205 When ballasting, open track shall be reduced to a minimum, and such track carefully watched for proper rail expansion to avoid buckled track.

The maximum authorized speed for passenger trains in the territory involved is 79 miles per hour.