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**RAILROAD ACCIDENT INVESTIGATION**

REPORT NO 4092

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**NEW YORK CENTRAL RAILROAD COMPANY**

**JORDAN, N Y**

**WARNERS, N Y.**

**MAY 18, 1966**

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**INTERSTATE COMMERCE COMMISSION**

**WASHINGTON**

## SUMMARY

DATE	May 18, 1966		
RAILROAD	New York Central		
LOCATION	Jordan, N. Y.	Warners, N. Y.	
KIND OF ACCIDENT	Side Collisions		
TRAINS INVOLVED	Passenger	Freight	Freight
TRAIN NUMBERS	15	Extra 1098 West	Extra 1872 East
LOCOMOTIVE NUMBERS	Diesel-electric units 4081, 4013	Diesel-electric units 1098, 1059, 1099	Diesel-electric units 1872, 1867, 1766, 5918, 5686
CONSISTS	12 cars	75 cars, caboose	102 cars, ca- boose
SPEEDS	80 m p h	50 m p h	40-42 m p h
OPERATION	Signal indications		
TRACK	Double, tangent, 0.19 percent de- scending grade westward	0.21 percent descending grade westward	
WEATHER	Clear		
TIME	8 22 p m	8 31 p m	
CASUALTIES	11 injured		

CAUSE

**Protruding side** of a defective hopper car on an eastbound train fouling adjacent main track and being struck by two westbound trains moving on that track

RECOMMENDATION

That an adequate interior inspection of cars of this type be made prior to loading to determine if car body structure is safe and suitable for the loading and service for which such equipment is to be used

**INTERSTATE COMMERCE COMMISSION**  
**RAILROAD SAFETY AND SERVICE BOARD**

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**NEW YORK CENTRAL RAILROAD COMPANY**  
**MAY 18, 1966**

*SYNOPSIS*

*On May 18, 1966, a side of a defective hopper car in an eastbound New York Central Railroad freight train obstructed an adjacent main track and was struck by a westbound passenger train and a westbound freight train moving on that track near Jordan and Warners, N Y, resulting in the injury of one employee, eight railway post office employees, and two passengers*

*The accident was caused by a protruding side of a defective hopper car on an eastbound train fouling adjacent main track and being struck by two westbound trains moving on that track*

**LOCATION AND METHOD OF OPERATION**

The accident occurred on that part of the Syracuse Division of the New York Central Railroad extending between Rochester and Syracuse, N Y, a distance of 85.5 miles. In the accident areas this is a double-track line over which trains operate in either direction on both main tracks by signal indications of a traffic control system, supplemented by an automatic train stop system. From the north, the main tracks are designated as track No 1 and track No 2.

The first collision occurred 21 2 miles west of Syracuse and 4,276 feet east of Jordan and 2,034 feet west of Control Point No 5 (CP 5)

The second collision occurred 15 7 miles west of Syracuse and 1 2 miles west of Warners and 5 5 miles east of the first collision

At Lyons, N Y , 50 6 miles west of Syracuse and 28 6 miles west of Jordan, a single-track line connects with track No 2 This line extends southward from Lyons to Cherry Tree, Pa , a distance of 297 4 miles

Details concerning the tracks, operating rules, trains and damages, and other factors are set forth in the appendix

#### DESCRIPTION AND DISCUSSION

No 15, a westbound first-class passenger train, consisting of 2 diesel-electric units and 12 cars, left Syracuse at 8-01 p m , on time About 21 minutes later as this train moved westward on track No 2 at 80 miles per hour, according to the speed recording tape, the engineer saw the headlight of Extra 1872 East approaching on track No 1, and dimmed the headlight of his locomotive as required When the locomotive of Extra 1872 East passed, the engineer of No 15 restored the headlight to bright Shortly thereafter, at a distance of about 150 feet, he saw the south side of a hopper car in the passing freight train protruding and obstructing track No 2 He promptly initiated a heavy service brake application and immediately afterward, the protruding side of the hopper car struck the north side of the superstructure of the 2 diesel-electric units and the 3rd to 9th cars, inclusive, and the 11th and 12th cars No 15 stopped 3,168 feet west of the collision point The flagman of this train said that when the collision occurred, he was thrown to the floor of the rear car and could not get up soon enough to give stop signals to crew members at the rear-end of Extra 1872 East When he did get up, he saw Extra 1872 East a considerable distance away proceeding eastward on track No 1 The other crew members said that when No 15 stopped they inspected their train and then moved it westward to a point opposite the telephone located on the south side of the tracks about 1 7 miles west of the accident point The conductor telephoned the train dispatcher

at about 8.37 p m and told him that No 15 had been struck by a protruding side of a hopper car in the consist of Extra 1872 East

Two passengers and 8 railway post office employees on this train were injured

Extra 1098 West, a westbound freight train consisting of 3 diesel-electric units, 75 cars and a caboose left Syracuse (De Witt Yard) at 7:55 p m About 36 minutes later as this train moved westward on track No 2 at 50 miles per hour, as indicated by the speed-recording tape, it passed the locomotive of Extra 1872 East moving eastward on track No 1 Shortly thereafter, when the locomotive of this train was in the vicinity of CP 4, located 15.2 miles west of Syracuse and 3,918 feet west of Warners, the engineer saw the protruding side of a hopper car about 200 feet away, which obstructed track No 2 He initiated an emergency train brake application and immediately thereafter, the protruding side of the hopper car struck the north side of the 1st and 3rd locomotive units, the 4th through the 30th, the 34th through the 59th, the 61st through the 66th, the 68th car, and the 70th through the 75th cars The engineer said that he radio-telephoned the crew on the locomotive of Extra 1872 East and warned them to stop immediately, that there was a protruding car toward the rear of their train Members of the crew on the caboose of Extra 1098 West said that they heard the cars of their train being struck by the passing eastbound train and immediately gave stop signals with a lighted fusee and received an acknowledgment from a crew member on the caboose of Extra 1872 East The front end of Extra 1098 West stopped 4,343 feet west of CP 4

The engineer of Extra 1098 West was injured

Extra 1872 East, an eastbound freight train consisting of 5 diesel-electric units, 102 cars and a caboose, left Corning, N Y (YD), 69.6 miles south of Lyons, at 4:30 p m, and passed GY, 13.9 miles south of Lyons, the last open office, at 7:05 p m The operator at GY said that he was standing at the window on the second floor of the block station when Extra 1872 East was passing and did not observe any defective condition in the equipment of this train Extra 1872 East entered track No 2 at Lyons at about 7:34 p m and proceeded eastward on that track until the dispatcher routed this train from track No 2 to track No 1 at CP 11, 6.7 miles east of Lyons About 8:22 p m as this train was moving eastward on track No 1 at 40 miles per hour, as indicated by the speed recording tape, in the vicinity of CP 5, it passed No 15 moving westward on track No 2

The members of the crew of Extra 1872 East said that they had inspected their train en route and were unaware that the 91st car, B&O 430292, a loaded hopper car had a bulge on the south side and was obstructing track No 2. They said they were unaware that this car had struck the north side of No 15 as the trains passed in the vicinity of CP 5. The flagman in the caboose of Extra 1872 East said that he had seen a light from the rear end of No 15 and interpreted it as a proceed signal and called the signal to the other members of the crew in the caboose. About 9 minutes later while moving eastward on track No 1 at 42 miles per hour, as indicated by the speed-recording tape, Extra 1872 East passed Extra 1098 West moving westward on track No 2 in the vicinity of CP 4. As the cabooses of these trains passed, the flagman of Extra 1872 East saw violent stop signals being given with a lighted fusee from the rear of Extra 1098 West. The flagman called a warning to the conductor to stop the train. At about the time the conductor was initiating a brake application with the conductor's brake valve, the engineer of this train received a warning on the radio-telephone from the engineer of Extra 1098 West. He immediately initiated a heavy service application of the train brakes. The front end of the train stopped 1,843 feet east of Warners.

Examination of B&O 430292, the 91st car of Extra 1872 East, after the collisions, disclosed that in the area of the No 2 hopper, the south side of the car was bulged and protruded southward 4 feet 1 1/2 inches laterally from its normal vertical plane. The side sheets and top chord angle at this location were heavily battered with extensive twisting and buckling of the top chord angle. The side sill sagged 11 inches from its normal horizontal plane, and the vertical web, of the side sill, was broken 14 feet 5 1/2 inches from the "B" or west end of the car. There was an 8-inch sag in the center sill approximately at its mid point. There was no evidence of buckling or fracture in the center sill structure. Examination of the interior of the car, after the bituminous coal lading had been transferred, revealed that 2 crossridge braces on the south side of the car were missing and 1 was broken and 1 on the north side of the car was missing and 2 were heavily corroded. Examination of the interior side stakes on this car revealed extensive corrosion and deterioration. It was evident that the crossridge braces were broken and missing before the car was loaded.

## FINDINGS

It is evident that had a proper inspection been made of this car prior to being loaded it would have been noted that the crossridge braces, an essential side strengthener and stiffener, were missing and/or broken

## CAUSE

The accident was caused by a protruding side of a defective hopper car on an eastbound train fouling adjacent main track and being struck by two westbound trains moving on that track

## RECOMMENDATION

It is recommended that an adequate interior inspection of cars of this type be made prior to loading to determine if car body structure is safe and suitable for the loading and service for which such equipment is to be used

*Dated at Washington, D C , this 31st  
day of October 1966  
By the Commission, Railroad Safety  
and Service Board*

H NEIL GARSON  
*Secretary*

(SEAL)



## APPENDIX

*Tracks*

From the west at Control Point 6 there are, in succession, a tangent 1 9 miles to the point of first collision, a tangent 2 5 miles, a 0°37' curve to the right 2,200 feet in length, a tangent 2 6 miles to the point of second collision and 3 4 miles eastward. The average grade for westbound trains in the area of the first and second collisions is 0 19 and 0 21 percent descending, respectively.

*Carrier's Operating Rules*

## GENERAL RULES

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F Accidents, \*\*\* or any unusual conditions which may affect the movement of trains, must be promptly reported by quickest available means of communication to the proper authority and protection provided when necessary.

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## 701. OBSERVANCE OF TRAINS

When trains are passing, trainmen at rear of train must observe the general condition of trains on other tracks.

\*\*\*

Train and engine crews must observe each side of their train frequently. The engineman or other member of the crew on the engine must be on the lookout for signals from the rear after meeting or passing trains, \*\*\* and frequently at other points.

When trains are passing, signalmen and operators must observe the general condition of trains. \*\*\* other employees must make similar observations.

If any indication of conditions endangering a train is observed, stop signal must be given. If there are no apparent defects, employee must give proceed signal.

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*Trains and Damages*

No 15 consisted of car-body type diesel-electric units 4081 and 4013 coupled in multiple-unit control, 2 flexi-van flat cars, 1 baggage car, 1 mail car, 1 baggage car, 1 baggage-dormitory car, 1 sleeping car, 2 coaches, 1 dining car, 1 sleeping car and 1 coach, in that order. The cars were of all-steel construction. All the cars, except the 2nd, 3rd, and 5th, were equipped with tightlock couplers. The train brakes had been tested and had functioned properly when used en route. As the train approached the accident point, the engineer and fireman were in the control compartment at the front of the locomotive. The conductor was in the dining car, the helper conductor was walking from the sleeping car toward the dining car, the front brakeman was in the vestibule between the 1st and 2nd coaches and the flagman was standing inside the rear door of the rear coach.

None of the equipment of No 15 was derailed. The 2 diesel-electric units, the 3rd to 9th cars, inclusive, and the 11th and 12th cars were slightly damaged.

Extra 1098 West consisted of car-body type diesel-electric units 1098, 1059 and 1099, coupled in multiple-unit control, 75 cars and a caboose. The brakes had been tested and functioned properly when used en route. As this train approached the accident point, the engineer, fireman and front brakeman were in the control compartment of the first diesel-electric unit. The swing brakeman was in the control compartment on the north side of the second diesel-electric unit. The conductor and flagman were in the caboose.

None of the equipment of Extra 1098 West was derailed. The 1st and 3rd diesel-electric units, and 66 cars throughout various locations in the train were slightly damaged, as a result of the protruding side of B&O 430292 striking the equipment as the train passed.

Extra 1872 East consisted of car-body type diesel-electric units 1872, 1867, 1766 and road-switcher type diesel-electric units 5918 and 5686 coupled in multiple-unit control, 102 cars and a caboose. The train brakes had been tested and functioned properly when used en route. As this train approached the accident point, the engineer, fireman and front brakeman were in the control compartment of the first diesel-electric unit. The conductor, swing brakeman, and the flagman were in the caboose.

None of the equipment of Extra 1872 East was derailed or damaged with the exception of B&O 430292, the 91st car of the train

B&O 430292, the 91st car of Extra 1872 East, was an all-steel, self-clearing hopper car, having fixed sides and ends and bottom consisting of four divided hoppers with doors hinged crosswise of car and dumping between rails. Its lightweight, nominal capacity and load limit were, respectively, 52,200, 140,000, and 167,800 pounds. The normal outside height, width, and length over strikers for this car were 10 feet 6 inches, 10 feet 1-1/8 inches and 43 feet 1-3/8 inches, respectively.

The lading of the 91st car consisted of slack bituminous coal loaded to maximum cubic capacity of car and having a total weight of 158,900 pounds, 8,900 pounds less than maximum load limit allowable for this car under AAR rules.

An exterior inspection, from the ground, of B&O 430292 was made by carrier mechanical department employees. No inspection was made of the interior of this car before it was placed for loading by the shipper.

B&O 430292 was loaded by the Valley Coal Company, at 8.55 a m, May 16, 1966, at Alberto, Pa. The lading was consigned to the Central Hudson Gas and Electric Co., Roseton, N Y. The car was loaded to full visible capacity by personnel of the shipper and was accepted for shipment by a representative of the New York Central Railroad. It was routinely inspected at several points after departure from Alberto, and no exceptions taken.

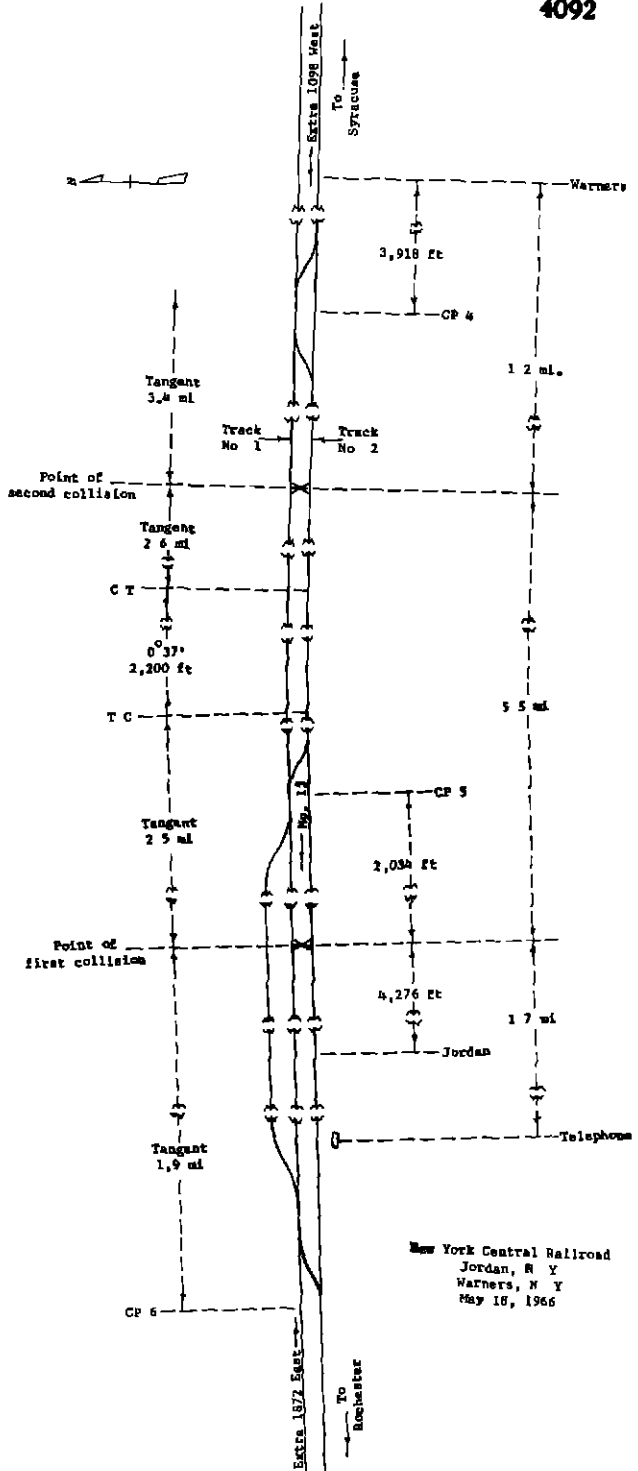
#### *Other Factors*

The first and second collisions occurred about 8.22 p m, and 8.31 p m, respectively, in clear weather.

The maximum authorized speeds for passenger and freight trains in the accident areas are 80 and 50 miles per hour, respectively. However, Extra 1872 East, an integral (coal) train was restricted to 40 miles per hour.

In the area of the collisions the main tracks are laid on a slight fill at ground level. The view between eastbound and westbound trains is unrestricted for a least one mile.

- Syracuse N Y
- 14.5 mi
- Warners
- 0.7 mi
- CP 4
- 0.5 mi
- ✕ Point of first collision
- 5.1 mi
- CP 5
- 0.4 mi.
- ✕ Point of second collision
- 0.8 mi
- Jordan
- 1.1 mi
- CP 6
- 20.8 mi
- CP 11
- 6.7 mi
- Lyons
- 34.9 mi
- Rochester N Y



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**Washington, D. C. 20423**

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