INTERSTATE COMMERCE COMMISSION

WASHINGTON

REPORT NO. 3578

INTERNATIONAL-GREAT NORTHERN RAILROAD COMPANY

IN RE ACCIDENT

AT TROUP, TEX., ON

JUNE 19, 1954

SUMMARY

Date:	June 19, 1954	
Railroad:	International-Great Northern	
Location:	Troup, Tex.	
Kind of accident.	Head-end collision	
Trains involved	Freight	Freight
Train numbers.	Extra 604 North	65
Engine numbers.	Diesel-electric units 604A, 4162, and 598A	Diesel-electric units 534A, 526B, and 546A
Consists:	100 cars, caboose	97 cars, caboose
Speeds:	Forward portion of train moving slowly in backward motion	8 m. p. h.
Operation.	Timetable, train orders, and automatic block-signal system, yard limits	
Track:	Single, 2° curve, 0.89 percent descending grade northward	
Weather.	Clear	
Time	9.25 a. m.	
Casualties	5 injured	
Cause:	Failure properly to control speed of train moving within yard limits	

INTERSTATE COMMERCE COMMISSION

REPORT NO. 3578

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

INTERNATIONAL-GREAT NORTHERN RAILROAD COMPANY

July 21, 1954

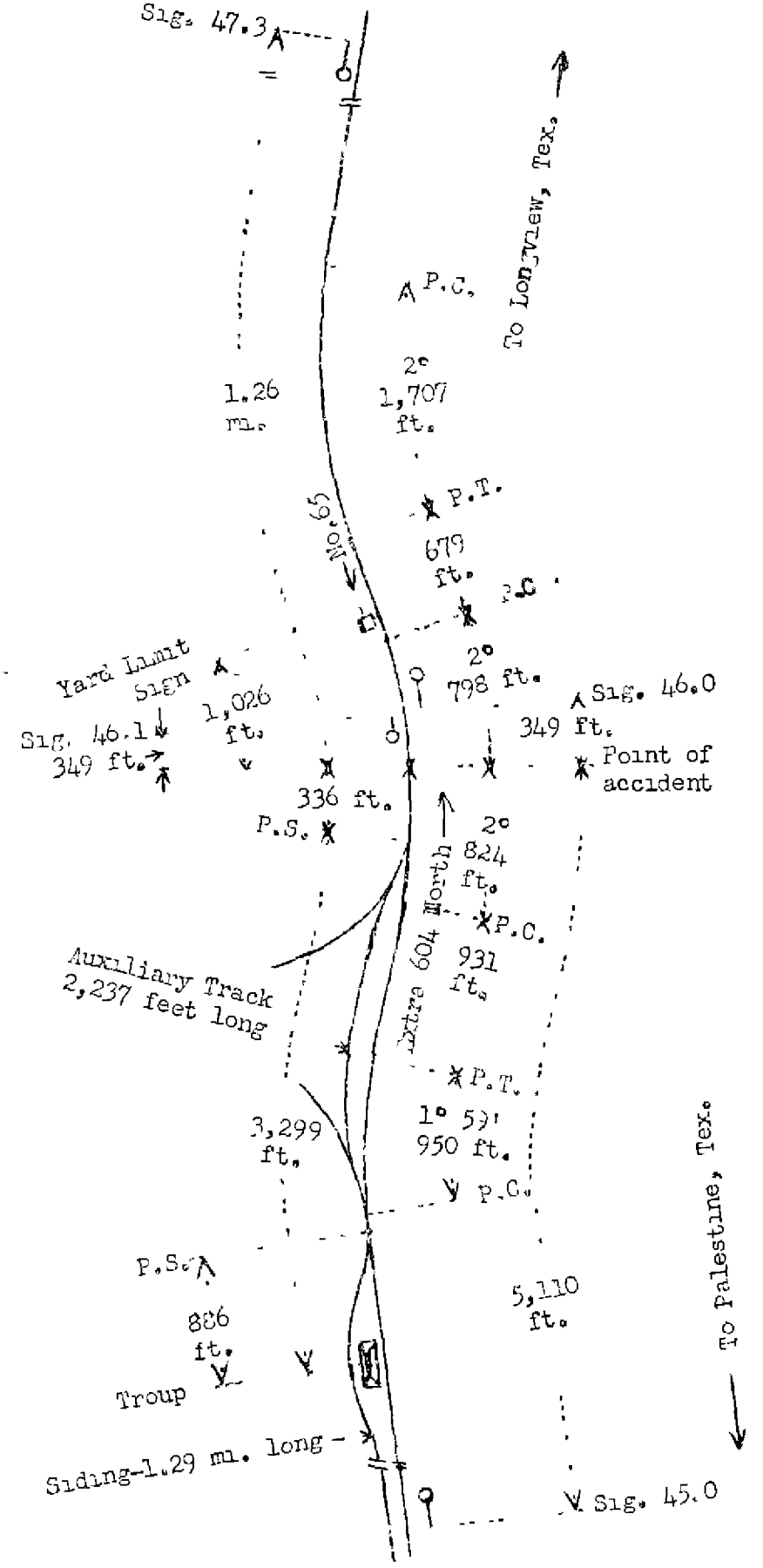
Accident at Troup, Tex., on June 19, 1954, caused by failure properly to control the speed of a train moving within yard limits

REPORT OF THE COMMISSION[1]

CLARKE, Commissioner

On June 19, 1954, there was a head-end collision between two freight trains on the International-Great Northern Railroad at Troup, Tex., which resulted in the injury of five train-service employees

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



- Longview, Tex.
  22.4 mi.
- Overton
  6.2 mi.
- Arp
  7.3 mi.
- Troup
  (Point of accident)
  18.2 mi.
- Jacksonville
  27.2 mi.
- Palestine, Tex.

Report No. 3578
International-Great Northern Railroad
Troup, Tex.
June 19, 1954

Location of Accident and Method of Operation

This accident occurred on that part of the Palestine Division extending between Palestine and Longview, Tex., 81.3 miles. In the vicinity of the point of accident this is a single-track line, over which trains are operated by timetable, train orders, and an automatic block-signal system. At Troup, 45.4 miles north of Palestine, a siding 1.29 miles in length and an auxiliary track 2,237 feet in length parallel the main track on the west. The north switches of the siding and the auxiliary track are, respectively, 886 feet and 3,299 feet north of the station. The accident occurred on the main track within yard limits at a point 336 feet north of the north switch of the auxiliary track and 1,026 feet south of the north yard-limit sign. From the south there are, in succession, a 1°59' curve to the right 950 feet in length, a tangent 931 feet, and a 2° curve to the left 824 feet to the point of accident and 798 feet northward. From the north there are, in succession, a 2° curve to the left 1,707 feet in length, a tangent 679 feet, and the curve on which the accident occurred. The grade for north-bound trains is, successively, 1.11 percent descending 1,320 feet, and 0.89 percent descending 815 feet to the point of accident. The grade for south-bound trains is, successively, level 2,250 feet, 1.24 percent ascending 730 feet, and 0.89 percent ascending 3,185 feet to the point of accident.

Automatic signals 45.0 and 46.0, governing north-bound movements, and automatic signals 47.3 and 46.1, governing south-bound movements, are located, respectively, 5,110 feet south, 349 feet north, 1.26 miles north, and 349 feet north of the point of accident. These signals are of the color-light type and are continuously lighted. Aspects applicable to this investigation and the corresponding indications and names are as follows:

Signal	Aspect	Indication	Name
45.0	Green	Proceed.	CLEAR
46.0	Red	Stop.	STOP
45.0 47.3	Yellow	Proceed, immediately reducing to 30 MPH, or slower if necessary, prepared to stop before reaching next signal, * * *	APPROACH

46.1	Red over letter "T"	Proceed at low speed * * * to next signal governing in same direction. * * *	LOW

The control circuits are arranged on the absolute-permissive-block principle. When the block of signal 47.3 is unoccupied and the block of signal 46.1 is occupied, signal 47.3 indicates Approach and signal 46.1 indicates Proceed at Low Speed. When the block of signal 46.0 is occupied and the block of signal 45.0 is unoccupied, signal 46.0 indicates Stop and signal 45.0 indicates Approach.

This carrier's operating rules read in part as follows:

DEFINITIONS.

Restricted Speed.--Proceed prepared to stop short of train, engine, obstruction or switch not properly lined.

Low Speed.--A speed that will permit stopping short of train, engine, obstruction or switch not properly lined and looking out for broken rail, but not exceeding 15 miles per hour.

34. Calling of Signals.--All members of engine and train crews must, when practicable, communicate to each other by its name the indication of each signal affecting the movement of their train or engine.

* * *

93. Yard Limit Rule. * * *

* * *

Within yard limits, the main track may be used without protecting against second and inferior class trains, extra trains and engines.

Within yard limits, second and inferior class trains, extra trains and engines must move at restricted speed.

The maximum authorized speed for freight trains is 50 miles per hour.

Description of Accident

Extra 604 North, a north-bound freight train, consisted of Diesel-electric units 604A, 4162, and 598A, coupled in multiple-unit control, 93 cars, and a caboose. At Palestine the crew received copies of train order No. 10 reading as follows:

> Eng 604 run Extra Palestine to Longview with right over Southward except first class trains.

The train departed from Palestine at 6:50 a. m. Seven cars were added to the train at Jacksonville, 18.2 miles south of Troup. The train departed from Jacksonville at 8:40 a. m. and stopped on the main track within yard limits at Troup at 9:10 a. m. with the locomotive in the vicinity of the station. Several minutes later the members of the crew on the locomotive received copies of train order No. 16 reading as follows.

> Extra 604 North meet No 65 Eng 534 at Troup
> Order to Extra 604 North at Troup

The train was then moved northward a short distance. The locomotive and the first 26 cars were detached, and this portion of the train was moved northward and stopped with the front of the locomotive about 340 feet south of signal 46.0, which indicated Stop, and 1,020 feet south of the north yard-limit sign. The engineer then attempted to move the forward portion of the train southward, but the locomotive was struck by No. 65 immediately after the movement was started.

No. 65, a south-bound second-class freight train, consisted of Diesel-electric units 534A, 526B, and 546A, coupled in multiple-unit control, 97 cars, and a caboose. At Longview the crew received copies of train orders Nos. 10 and 16. This train departed from Longview at 8:10 a. m., 2 hours 50 minutes late, passed Arp, 7.3 miles north of Troup, and the last open office, at 9:16 a. m., 2 hours 50 minutes late, passed signal 47.3, which indicated Approach, passed the north yard-limit sign at Troup, passed signal 46.1, which indicated Proceed at Low Speed, and while moving at an estimated speed of 8 miles per hour it struck the locomotive of Extra 604 North.

The forward portion of Extra 604 North was moved southward a distance of approximately 37 feet by the force of the impact. The rear truck of the first Diesel-electric unit and the second and third Diesel-electric units and the first four cars were derailed. The second car was overturned to the west. The other derailed equipment remained approximately upright and in line with the track. The third car was destroyed, the first Diesel-electric unit was considerably damaged, and the other derailed equipment was somewhat damaged. The rear truck of the first Diesel-electric unit, the second and third Diesel-electric units, and the front truck of the first car of No. 65 were derailed. The derailed equipment remained upright and in line with the track. The first and second Diesel-electric units were considerably damaged, and the third Diesel-electric unit was slightly damaged.

The engineer and the front brakeman of Extra 604 North and the engineer, the fireman, and the conductor of No. 65 were injured.

The weather was clear at the time of the accident, which occurred at 9:25 a. m.

Discussion

When Extra 604 North arrived at Troup the crew held copies of train order No. 10, which made their train superior to No. 65. Train order No. 16, which provided that Extra 604 North would meet No. 65 at Troup, had been issued to the operator at Troup for delivery to the crew of Extra 604 North. The front of the train passed signal 45.0, which indicated Proceed, and the train was stopped between the siding switches in compliance with the stop indication of the train-order signal and a hand signal from the operator. At this time the enginemen, the front brakeman, and the flagman were on the locomotive. The conductor was in the caboose. The members of the train crew at the front of the train entered the station and waited several minutes while the operator obtained instructions as to the disposition of a car in the train. About 5 minutes after the train stopped, the operator delivered these instructions and copies of train order No. 16 to the members of the crew and also informed them that No. 65 was between Arp and Overton, 6.2 miles north of Arp. Nineteen cars in the train of Extra 604 North were to be set off at Troup, and the crew was to perform switching at that station.

The front brakeman and the flagman decided that there would be sufficient time to proceed to the north end of the auxiliary track with the cars to be set off before the arrival of No. 65. They planned to clear the main track at that point if No. 65 arrived before the switching was completed. After the train order was delivered to the enginemen and the train was moved northward a short distance, the flagman detached the first 26 cars from the rear portion of the train. The locomotive, pulling the 26 cars, then moved northward. The engineer and the front brakeman said that when the locomotive reached a point from which they could see the aspect of signal 46.0 they observed that the signal indicated Stop. The engineer immediately made a service application of the brakes and informed the front brakeman that No. 65 had passed Arp, and that they should move back beyond the north siding-switch in order to avoid delay to that train. After the locomotive stopped, the engineer observed No. 65 approaching, and as soon as the brakes on his cut of cars could be released he started to move it backward. The collision occurred a few seconds after the movement was started. The fireman was so seriously injured that he was not questioned during this investigation. The conductor, who was inspecting the train, had not arrived at the front end of the train when the collision occurred.

As No. 65 was approaching the point where the accident occurred the enginemen were maintaining a lookout ahead from the control compartment at the front of the locomotive, the conductor and the front brakeman were in the control compartment at the rear of the locomotive, and the flagman was in the caboose. The members of the crew had read train orders Nos. 10 and 16 and understood that their train was to take the siding at Troup to meet Extra 604 North. The brakes of the train had been tested and had functioned properly when used en route. When the front of the train reached a point about 1 mile north of the north yard-limit sign at Troup the engineer sounded the meeting-point whistle signal on the pneumatic horn. Signal 47.3 indicated Approach, and signal 46.1 indicated Proceed at Low Speed.* The indication of each signal was called by the enginemen. These employees estimated that the speed was between 30 and 35 miles per hour as the front of the train passed signal 47.3, and that it was reduced to between 12 and 15 miles per hour as the train approached signal 46.1. The front brakeman proceeded to the front of the locomotive and entered the control compartment as the locomotive was approaching signal 46.1. Because of curvature of the track and vegetation west of the track, the employees in the front control compartment of the locomotive

could not see the locomotive of Extra 604 North until they were closely approaching signal 46.1. When they saw the opposing train the engineer immediately made an emergency application of the brakes. He estimated that the speed had been reduced to about 8 miles per hour when the collision occurred. The engineer said that because of the ascending grade it is difficult to enter the siding at Troup with a long train after stopping north of the siding switch. He said that before he saw Extra 604 North he thought the opposing train would be between the siding switches, and he was operating at a speed which would enable him to enter the siding without difficulty and which he thought would enable him to stop short of an obstruction.

The locomotives and cabooses of both trains were provided with radio equipment with which, under favorable conditions, satisfactory communication between trains can be obtained over distances of up to 5 miles. In the instant case, none of the crew members of either train attempted to communicate with members of the crew of the other train before the accident occurred.

This accident occurred within yard limits. Under the rules of this carrier governing operation of trains within yard limits, No. 65 was required to be operated in such manner that it could be stopped short of a train or obstruction. The indication of the last signal which this train passed placed a restriction on the movement similar to the requirement of the yard-limit rule.

Cause

It is found that this accident was caused by failure properly to control the speed of a train moving within yard limits.

Dated at Washington, D. C., this twenty-first day of July, 1954.

By the Commission, Commissioner Clarke.

(SEAL)

GEORGE W. LAIRD,

Secretary.