INTERSTATE COMMERCE COMMISSION

WASHINGTON

REPORT NO. 3419

THE TEXAS AND PACIFIC RAILWAY COMPANY

IN RE ACCIDENT

NEAR LETTSWORTH, LA., ON

AUGUST 10, 1951

SUMMARY

Date:	August 10, 1951	
Railroad:	Texas and Pacific	
Location:	Lottsworth, La.	
Kind of accident:	Head-end collision	
Trains involved:	Passenger	: Passenger
Train numbers:	1	: Extra 51-A North
Engine numbers:	Diesel-electric units 23 and 32A	: Diesel-electric units 59D and 78C
Consists:	6 cars	: 16 cars
Estimated speeds:	55 m. p. h.	: 40 m. p. h.
Operation:	Timetable and train orders	
Track:	Single; 1°30' curve, level	
Weather:	Clear	
Time:	7:02 a. m.	
Casualties:	13 killed; 82 injured	
Cause:	Train occupying main track on time of opposing superior train without protection	
Recommendation:	That the carrier immediately take the necessary steps to enforce compliance with its operating rules and that it discontinue the practice of arranging unauthorized train movements by the use of the train communication system	

INTERSTATE COMMERCE COMMISSION

REPORT NO. 3419

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

THE TEXAS AND PACIFIC RAILWAY COMPANY

October 4, 1951

Accident near Lettsworth, La., on August 10, 1951, caused by a train occupying the main track on the time of an opposing superior train without protection.

REPORT OF THE COMMISSION[1]

PATTERSON, Commissioner:

On August 10, 1951, there was a head-end collision between two passenger trains on the Texas and Pacific Railway near Lettsworth, La., which resulted in the death of 6 passengers, 1 trainmaster, and 6 train-service employees, and the injury of 69 passengers, 6 dining-car employees, 3 sleeping-car employees and 4 train-service employees. This accident was investigated in conjunction with a representative of the Louisiana Public Service Commission.

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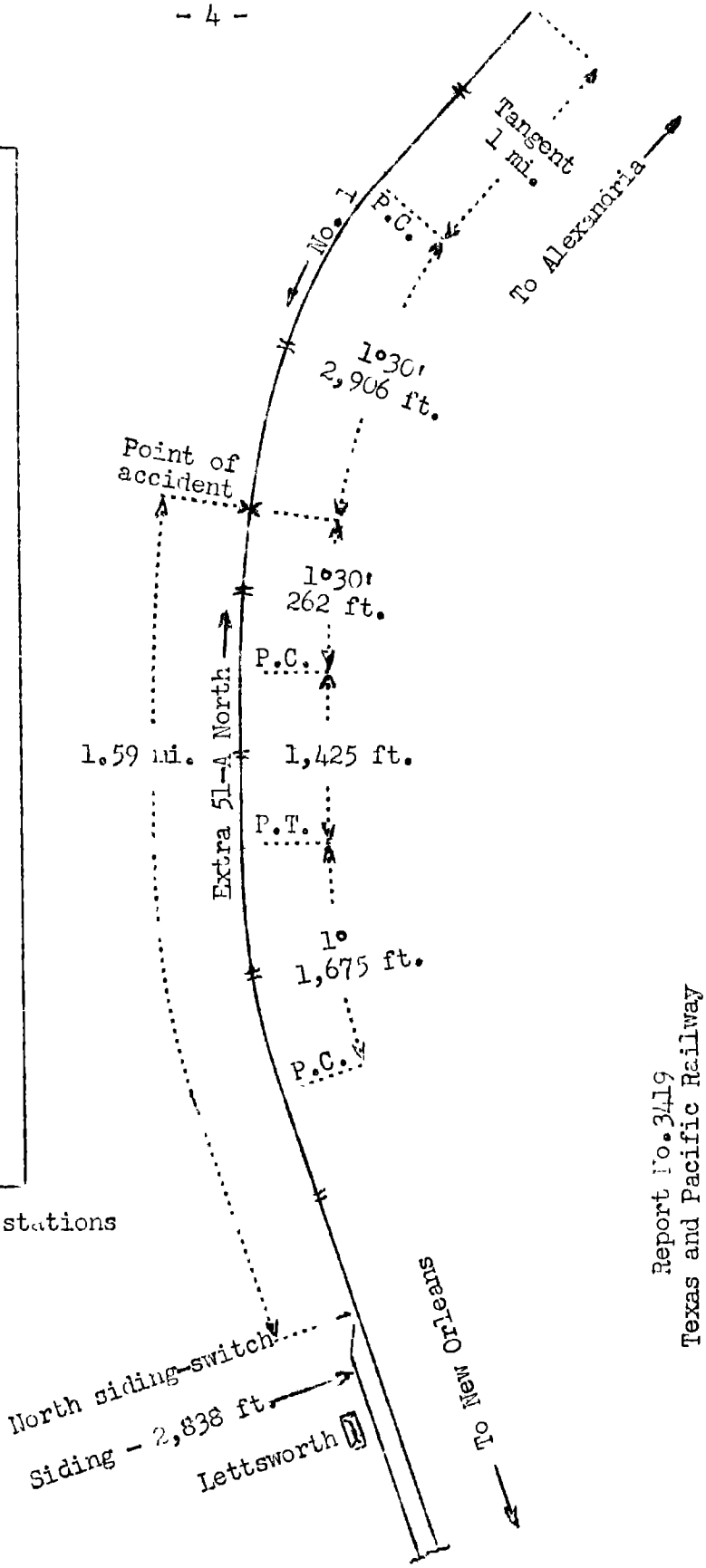
[1] Under authority of section 17 (2) of the Interstate Commerce Act the above-entitled proceeding was referred by the Commission to Commissioner Patterson for consideration and disposition.

o Alexandria, La.*
| 18.60 mi.
o Bijou
| 13.00 mi.
o Mansura Jct.
| 14.60 mi.
o Simmesport*
| 3.30 mi.
o Eden
| 4.70 mi.
o Torras
| 2.03 mi.
X Point of accident
| 1.67 mi.
o Lettsworth
| 6.90 mi.
o Batchelor
| 8.30 mi.
o Morganza
| 10.00 mi.
o New Roads
| 19.80 mi.
o Lobdell Jct.
| 4.40 mi.
o Bridge Jct.
| 2.90 mi.
o North Baton Rouge*
| 1.10 mi.
o Baton Rouge
| 5.30 mi.
o Essen
| 69.90 mi.
o West Yard*
| 3.80 mi.
o New Orleans, La.

* Train communication stations



Report No. 3419
Texas and Pacific Railway
Lettsworth, La.
August 10, 1951

Location of Accident and Method of Operation

This accident occurred on that part of the Louisiana Division extending between Lobdell Jct. and Torras, La., 48.7 miles. This portion of the Texas and Pacific Railway forms a part of a single-track line, which extends between Lobdell Jct. and Mansura Jct., La., 22.6 miles north of Torras. Trains of both the Texas and Pacific Railway and the Louisiana & Arkansas Railway regularly are operated over this line. Portions of the line between Torras and Mansura Jct. are owned by each carrier. Trains of the L.& A. operating between New Orleans, La., 87.4 miles south of Lobdell Jct., and Alexandria, La., 31.6 miles north of Mansura Jct., regularly operate over this line between Lobdell Jct. and Mansura Jct., and over a single-track line of the L.& A. between New Orleans and Lobdell Jct. and between Mansura Jct. and Alexandria. Trains moving between Lobdell Jct. and Mansura Jct. are under the jurisdiction of the train dispatcher of the L.& A., but are governed by the operating rules of the T.& P while on the line of that carrier. Between New Orleans and Bridge Jct., 4.4 miles south of Lobdell Jct., and between Lobdell Jct. and Alexandria, trains are operated by timetable and train orders. There is no block system in use. Between Bridge Jct. and Lobdell Jct. trains are operated by signal indications. At Lettsworth, 45 miles north of Lobdell Jct., a siding 2,838 feet in length parallels the main track on the west. The accident occurred on the main track at a point 1.59 miles north of the north siding-switch at Lettsworth. From the south there are, in succession, a 1° curve to the right 1,675 feet in length, a tangent 1,425 feet, and a 1°30' curve to the right 262 feet to the point of accident and 2,906 feet northward. From the north there are, in succession, a tangent more than 1 mile in length, and the curve on which the accident occurred. The grade is practically level.

A train communication system of the inductive type is in service on the line of the L.& A. between New Orleans and Alexandria, including those portions of the T.& P. between Lobdell Jct. and Mansura Jct. This train communication system uses the existing telephone and telegraph wires along the track as the transmission medium between wayside stations and between wayside stations and trains by superimposing low frequency communication signal energy on these wires without interfering with their normal functions. The space between the transmitting and receiving antennas of the mobile units and the wires along the track is bridged by an inductive coupling. The efficiency of transmission between a wayside station and a mobile unit and

also between mobile units varies inversely with the distance between the wires and the track at the location of the mobile units. This system provides communication between wayside stations, between wayside stations and trains, between the front ends and the rear ends of trains, and between trains. Wayside stations are located at West Yard, North Baton Rouge, Simmesport, and Alexandria. West Yard, North Baton Rouge, and Simmesport are, respectively, 3.8 miles, 80.1 miles, and 144.1 miles north of New Orleans. Under favorable weather conditions and with the equipment in good adjustment, transmission and reception between a wayside station and the locomotive or caboose of a train can be had over a distance of 25 to 30 miles. Satisfactory communication between trains is limited to about 1-1/2 miles.

Operating rules of the T.& P. read in part as follows:

14. Engine Horn or Whistle Signals. * * *

NOTE.--The signals prescribed are illustrated by "o" for short sounds; "__" for longer sounds. * * *

Sound.	Indication.
* * *	
(n) __ __ o	After passing last station approaching meeting or waiting points. Answer to 16 (1). (See Rule S-90.)

* * *

16. Communicating Signals. * * *

NOTE.--The signals prescribed are illustrated by "o" for short sounds; "__" for longer sounds. * * *

Sound.	Indication.
* * *	

(l) ____ To be sounded by conductor after passing last station approaching meeting or waiting points. This signal must be answered by 14 (n). (See Rule S-90.)

* * *

73. Extra trains are inferior to regular trains.

87. Protection When Failure to Clear.--When an inferior train fails to clear a superior train by the time required by rule, it must be protected at that time as prescribed by Rule 99.

* * *

S-89. Clearing Time, Opposing Trains.--An inferior train must clear the time (in timetable or train order) of an opposing superior train not less than 5 minutes before the leaving time of the superior train.

S-90. Action to Prevent Failure at Meeting Points.--If the engineer of a train after passing the last station approaching a meeting or waiting point, or point where his train is restricted for another train, fails to sound Signal 14 (n), or fails to prepare to stop short of the fouling point, when required, the conductor will take immediate action to stop the train.

Firemen, brakemen and other members of the crew will also be held responsible for failure to take immediate action to stop the train. (See Rules 14 (n) and 16 (l).)

99. Flagging Rule.-- * * *

When a train stops under circumstances in which it may be overtaken by another train, the flagman must go back immediately with flagman's signals a sufficient distance to insure full protection * * *

* * *

99 (b). When necessary, the front of the train must be protected as prescribed by Rule 99 by the forward trainman or by an engine man.

* * *

Timetable special instructions read in part as follows:

2. * * *

* * * extras * * * must clear No. 1 * * * at least 10 minutes.

Rules of the L.& A. governing the use of the train communication system read in part as follows:

Communication via the radio must not be utilized by any employe in any manner that would have the effect of supplanting or modifying strict compliance with operating rules and special instructions.

Radio will not be used in the transmission of train order directly to a train or engine, except in extreme emergencies. When so used, every precaution must be taken to prevent any misunderstanding. That part of Transportation Rule 206 covering train orders transmitted by telephone will be followed.

Operators are prohibited from advising approaching trains as to the position of their train order signal or informing them of the contents of any train orders for their train or for any other train. Train and engine crews are prohibited from requesting such information by radio.

The maximum authorized speed for passenger trains was 55 miles per hour.

Description of Accident

Extra 51-A North, a north-bound L.& A. passenger train, consisted of Diesel-electric units 59D and 78C, coupled in multiple-unit control, 1 express-refrigerator car, 11 sleeping cars, 1 baggage car, 2 kitchen cars, and 1 sleeping car, in the order named. The first car was of steel-underframe construction, and the other cars were of all-steel construction. This train departed from West Yard at 3:15 a. m., passed New Roads, 19.8 miles north of Lobdell Jct. and the last open office, at 6:27 a. m., passed Lettsworth about 7 a. m., 6 minutes after No. 1 was due to leave Eden, 8.4 miles north of Lettsworth and the next station in advance at which Extra 51-A North could clear the main track to meet No. 1, and while moving at an estimated speed of 40 miles per hour it collided with No. 1 at a point 1.59 miles north of the north siding-switch at Lettsworth.

No. 1, a south-bound first-class L.& A. passenger train, consisted of Diesel-electric units 23 and 32A, coupled in multiple-unit control, one baggage-mail-dormitory car, two coaches, one dining car, one sleeping car, and one lounge-observation car, in the order named. The first car was of lightweight steel construction, and the other cars were of high tensile steel-underframe construction with aluminum superstructure. This train departed from Alexandria at 6 a. m., 8 minutes late, passed Simmesport, the last open office, at 6:48 a. m., on time, and while moving at an estimated speed of 55 miles per hour it collided with Extra 51-A North.

The Diesel-electric units of both trains, the first five cars of Extra 51-A North, and the first four cars of No. 1 were derailed. The first Diesel-electric unit of Extra 51-A North stopped about 15 feet east of the track. It was demolished. The second Diesel-electric unit stopped upright, with its rear end about 20 feet north of the first Diesel-electric unit and 15 feet east of the track, and its front end about 25 feet east of the track. The first car stopped on its left side, approximately in line with the track and opposite the second Diesel-electric unit, with its front end against the second Diesel-electric unit of No. 1. The second car stopped upright, with its front end about 50 feet west of the track and opposite the front end of the first car, and its rear end on the track structure. The third car stopped upright, with its front end about 25 feet east of the track and its rear end against the rear end of the second car. The second Diesel-electric unit and the first three cars were destroyed by a fire as a result of the collision. The fourth and the fifth cars stopped upright and in line with the track. They were somewhat damaged. The first Diesel-electric unit of No. 1 stopped upright, west of the track and between the first and the second cars of Extra 51-A North. The second Diesel-electric unit stopped upright and in line with the track. The first car stopped upright, with its front end about 60 feet east of the track and opposite the first Diesel-electric unit of Extra 51-A North, and its rear end about 35 feet east of the track. The second car stopped with its front end against the front end of the third car of Extra 51-A North and its rear end on the track structure. The first Diesel-electric unit and the first two cars were destroyed by fire, and the second Diesel-electric unit was badly damaged. The third and the fourth cars stopped upright and in line with the track. They were somewhat damaged.

The engineer, the fireman, the conductor, and the front brakeman of Extra 51-A North, a trainmaster, who was in the locomotive of Extra 51-A North, and the engineer and the fireman of No. 1 were killed. The flagman of Extra 51-A North, and the conductor, the front brakeman, and the train baggageman of No. 1 were injured.

The weather was clear at the time of the accident, which occurred about 7:02 a. m.

The Diesel-electric units of both trains were provided with train communication equipment.

Discussion

Eden, Torras, Lettsworth, Batchelor, Morganza, and New Roads are located, respectively, 3.3 miles, 8 miles, 11.7 miles, 18.6 miles, 26.9 miles, and 36.9 miles south of Simmesport. A siding is located at each of these stations, except Torras. No. 1 was due to leave Simmesport at 6:48 a. m., Eden at 6:54 a. m., Torras at 6:59 a. m., Lettsworth at 7:03 a. m., Batchelor at 7:11 a. m., and Morganza at 7:21 a. m. Under the rules, Extra 51-A North was required to clear the schedule time of No. 1 not less than 10 minutes, or, if it was unable to clear the main track by the time required by rule, it was required to be protected at that time as prescribed by Rule No 99.

The crew of Extra 51-A North reported for duty at West Yard. A trainmaster accompanied the train between West Yard and the point where the accident occurred. The conductor and the trainmaster compared time with a standard clock before the train departed from West Yard, but surviving witnesses did not know whether the conductor compared time with the engineer. The brakes of the train were tested at West Yard. The flagman said that after the train passed North Baton Rouge the conductor showed him copies of several train orders which had been received at that point and remarked that their train would proceed as far as possible to meet No. 1. The conductor remained in the rear car until the train passed New Roads, and then proceeded toward the front of the train. As this train was approaching the point where the accident occurred the engineer, the fireman, the front brakeman, and the trainmaster were in the Diesel-electric units, the conductor was in the second car, and the flagman was in the rear vestibule of the rear car. The crew had received no train order that affected the movement of their train with respect to No. 1.

The flagman, who was the only surviving member of the crew, said that when the train passed Batchelor he was aware that it could not proceed beyond that point and clear the schedule time of No. 1 as required by rule. However, because the trainmaster was accompanying the train and had access to the train communication equipment on the first Diesel-electric unit he assumed that arrangements had been made to advance the train beyond Batchelor to meet No. 1. He said that the speed of the train was properly controlled in compliance with a speed restriction at Batchelor and that the grade-crossing whistle signal was sounded as the train approached rail-highway grade crossings at Batchelor and at Lettsworth. Several maintenance-of-way employees who observed the train pass Lettsworth said that there were at least three employees in the control compartment of the first Diesel-electric unit at that time and that these employees apparently were alert. Because of vegetation along the track, the range of vision between opposing trains in the vicinity of the point of accident is materially restricted. The flagman said that the brakes of the train were applied in emergency several seconds before the collision occurred. He thought that the speed of the train was about 40 miles per hour when the brakes were applied and that it had been somewhat reduced when the collision occurred.

As No. 1 was approaching the point where the accident occurred the enginemen were in the Diesel-electric units and the members of the train crew were in various locations throughout the cars of the train. The brakes of the train had been tested and had functioned properly when used en route. The members of the crew had received no train order that restricted their authority to proceed with respect to Extra 51-A North. Surviving members of the crew said they noticed nothing unusual in the handling of the train before the accident occurred. They estimated that the speed of the train was about 55 miles per hour as it approached the point of accident, and they said that there was no application of the brakes before the collision occurred.

The investigation disclosed that prior to the time of the accident the trainmaster on Extra 51-A North utilized the train communication system to advance Extra 51-A North against the schedule of No. 9, a south-bound first-class passenger train, without train order authority. No. 9 was due to leave Baton Rouge, 1.1 miles south of North Baton Rouge, at 5:30 a. m. Under the rules, if Extra 51-A North proceeded to Baton Rouge to meet No. 9, it was required to be clear of the main track

not later than 5:25 a. m. or to be protected at that time as prescribed by Rule No. 99. The flagman of Extra 51-A North and a supervisor of passenger service, who was on the train, said that the train passed Essen, 5.3 miles south of Baton Rouge and the last point at which the train could clear the main track to meet No. 9, without a reduction of speed. About 5:26 a. m. the train made an abrupt stop at a point about 2 miles south of Baton Rouge. The front brakeman immediately proceeded northward to provide flag protection, and the conductor proceeded to the front of the train. After an interval of about 5 minutes the train proceeded northward. The front brakeman boarded the first Diesel-electric unit when he was overtaken. The operator at North Baton Rouge said that some time before No. 9 was due to leave Baton Rouge the trainmaster on Extra 51-A North called him and informed him that Extra 51-A North would meet No. 9 at that station. About 5:30 a. m., after No. 9 had arrived at Baton Rouge, the trainmaster attempted to communicate with the engineer of No. 9. The engineer of No. 9 heard the trainmaster, but, because the transmitting equipment on the Diesel-electric unit of No. 9 was not functioning properly, the trainmaster was unable to hear him. The trainmaster then called the operator at North Baton Rouge, informed him that Extra 51-A North was having engine trouble south of Baton Rouge, and told him to instruct the crew of No. 9 to wait at Baton Rouge until Extra 51-A North arrived. The operator communicated with the conductor of No. 9 by telephone and repeated the instructions to him. After the trainmaster was advised that No. 9 was being held at Baton Rouge, Extra 51-A North proceeded to that station and cleared the main track at 5:40 a. m., 10 minutes after No. 9 was due to leave. The reason for the stop south of Baton Rouge could not be determined and the engineer did not request assistance in making repairs to the Diesel-electric units.

The operators at North Baton Rouge, Simmesport, and Alexandria and the crew of Extra 56-A North, a north-bound freight train which met No. 1 at Bijou, 27.6 miles north of Simmesport, were questioned to determine whether the employees on Extra 51-A North or on No. 1 had engaged in any conversation on the train communication system relative to the movement of their trains between North Baton Rouge and Alexandria. Extra 56-A North entered the siding at Bijou about 6 a. m. to meet No. 1 and No. 77, a south-bound freight train, which followed No. 1 from Alexandria. Ordinarily the engineer of a train at Bijou can communicate with the operators at Simmesport and Alexandria but cannot communicate with the operator at North Baton Rouge or with the crews of trains which are more than 1-1/2 miles from Bijou. The engineer of

Extra 56-A North said that as No. 1 was passing Bijou, at 6:20 a. m., he attempted to communicate with the engineer of that train but received no response. About 6:40 a. m. he heard a person who identified himself as being at Simmesport call Extra 51-A North several times. He heard no response to the call. After an interval of several minutes he heard a person speaking and apparently agreeing with a request or instructions which had been received, but he did not hear the other person in the conversation. About 6:55 a. m. he heard some one call Extra 51-A North several times but he heard no response to the call. The manner in which this person spoke indicated that he was somewhat excited. The engineer said that the person who was speaking on the second and third occasions did not identify himself, but that his voice was similar to that of the person who called Extra 51-A North from Simmesport. The fireman and the front brakeman of Extra 56-A North said they heard Simmesport call Extra 51-A North while their train was on the siding at Bijou, but they did not notice the time at which they heard the call and they did not hear any other conversation. The caboose of Extra 56-A North was not provided with train communication equipment. The operator at Simmesport said that he did not communicate with the crew of either Extra 51-A North or No. 1 on the day of the accident, and he did not hear the crew of either of these trains communicate with any one. He said that he called Extra 51-A North several times in an attempt to locate that train for the information of maintenance-of-way employees working in the vicinity of Simmesport. He was not certain of the times at which he called the train, but he said that at no time did he receive a response. He was not aware that an accident had occurred until he was so advised about 7:40 a. m. The section foreman at Simmesport entered the operator's office about 6:35 a. m. and remained there until shortly after No. 1 passed. He said that after No. 1 passed, the operator reported the train to the train dispatcher by telephone and then called Extra 51-A North on the train communication system. He thought that this was the only time that the operator used the telephone while he was in the office, and he was certain that no conversation took place on the train communication system. The operator at Alexandria said that he heard the engineer of Extra 56-A North attempt to communicate with the engineer of No. 1, but he did not hear the engineer of No. 1 use the communication system at any time. He thought that the operator at Simmesport called both Extra 51-A North and No. 1 at some time after No. 1 departed from Alexandria, but he noticed nothing unusual in the manner in which the operator called the trains and he remembered no conversation which would indicate that the operator was in communication with either train. The operator at North Baton

Rouge said he did not hear any conversation on the train communication system between the time Extra 51-A North passed his station and the time the accident occurred.

All members of the crew of Extra 51-A North except the flagman were killed in the accident, and it could not be determined why this train was occupying the main track on the time of the opposing superior train. About 1 hour 30 minutes before the accident occurred, Extra 51-A North passed Essen when it was apparent that the schedule time of No. 9 at Baton Rouge could not be cleared as required by the rules, and later passed Batchelor when it was apparent that the schedule time of No. 1 at Lettsworth could not be cleared as required by the rules. In addition, this train passed Lettsworth on the time of No. 1 In none of the three instances did any member of the crew take action to stop the train. The arrangements for the movement of the train in the first instance were made by the trainmaster instead of the conductor and without the knowledge of the train dispatcher. It could not be definitely determined that the movement of Extra 51-A North against the schedule of No. 1 was made upon information received on the train communication system. However, it was established during the investigation that the train communication system had been used on previous occasions in arranging for train movements without train order authority. The rules of the L.& A. governing the use of the train communication system provide that this system must not be utilized in any manner which would have the effect of supplanting or modifying strict compliance with operating rules and special instructions. This investigation has established that compliance with the operating rules is not being obtained.

Cause

It is found that this accident was caused by a train occupying the main track on the time of an opposing superior train without protection.

Recommendation

It is recommended that the carrier immediately take the necessary steps to enforce compliance with its operating rules and that it discontinue the practice of arranging unauthorized train movements by the use of the train communication system.

Dated at Washington, D. C., this fourth day of October, 1951.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,

Secretary.