INTERSTATE COMMERCE COMMISSION

WASHINGTON

INVESTIGATION NO. 2529

THE WESTERN PACIFIC RAILROAD COMPANY

REPORT IN RE ACCIDENT

NEAR SUNOL, CALIF., ON

SEPTEMBER 22, 1941

SUMMARY

Railroad:	Western Pacific	
Date:	September 22, 1941	
Location:	Sunol, Calif.	
Kind of accident:	Head-end collision	
Trains involved:	Passenger	: Light engine
Train numbers:	40	: Extra 83 West
Engine numbers:	179	: 83
Consist:	10 cars	:
Estimated speed:	36 m. p. h.	: 30 m. p. h.
Operation:	Timetable and train orders	
Track:	Single; 2° curve; 0.56 percent ascending grade eastward	
Weather:	Clear	
Time:	10:23 p. m.	
Casualties:	3 killed; 33 injured	
Cause:	Accident caused by an inferior train occupying the main track on the time of an opposing superior train	
Recommendation:	That the Western Pacific Railroad Company establish an adequate block-signal system on the line involved in this accident.	

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 2529

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

THE WESTERN PACIFIC RAILROAD COMPANY

November 17, 1941

Accident near Sunol, Calif., on September 22, 1941, caused by an inferior train occupying the main track on the time of an opposing superior train.

REPORT OF THE COMMISSION[1]

PATTERSON, Commissioner:

On September 22, 1941, there was a head-end collision between a passenger train and a light engine on the Western Pacific Railroad near Sunol, Calif., which resulted in the death of 3 train-service employees, and the injury of 23 passengers, 1 news-service employee, 1 Pullman employee, 4 dining-car employees, 2 train porters and 2 train-service employees. This accident was investigated in conjunction with the Railroad Commission of California.

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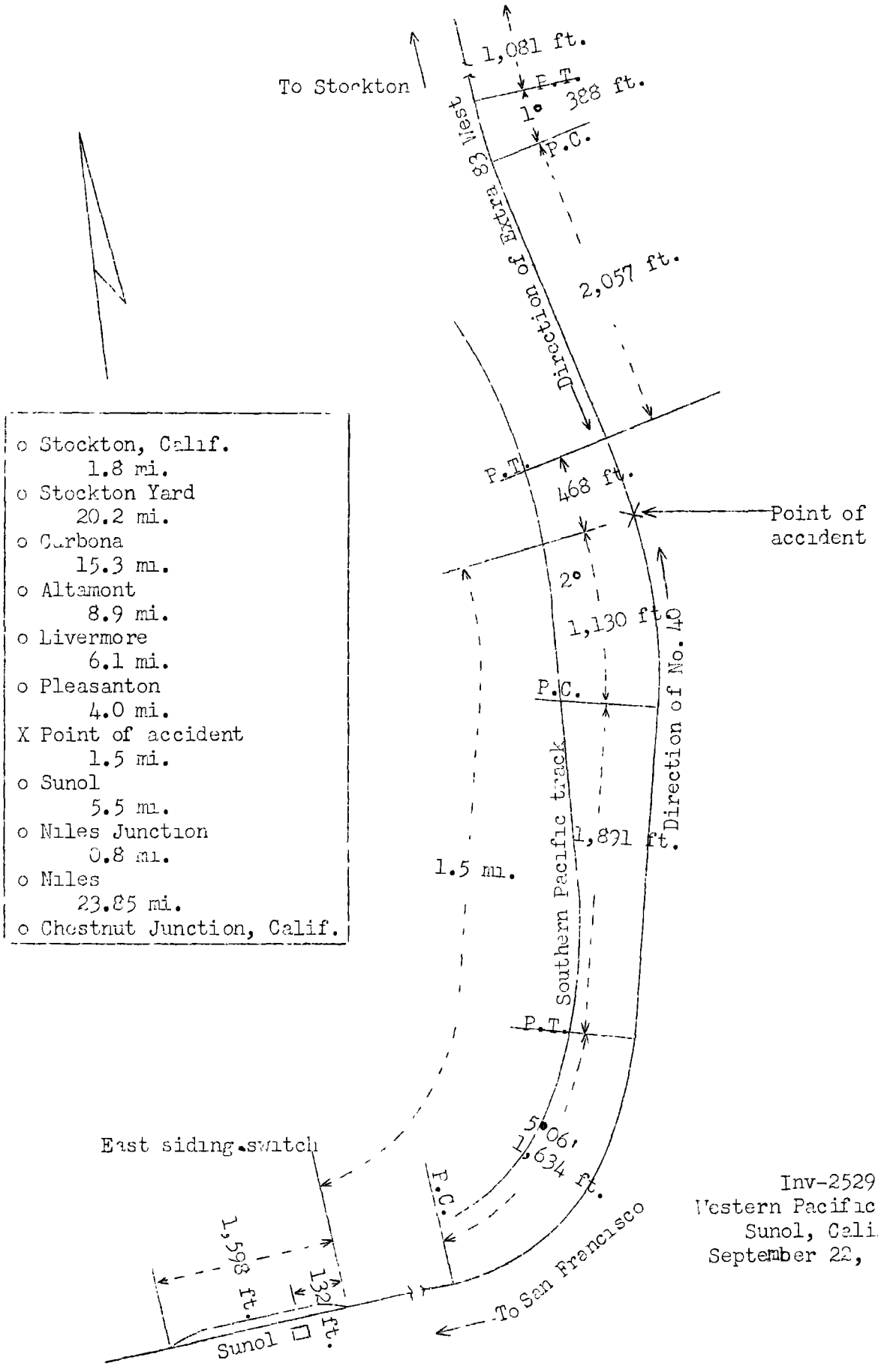
[1] Under authority of section 17 (2) of the Interstate Commerce Act the above-entitled proceeding was referred by the Commission to Commissioner Patterson for consideration and disposition.



Inv-2529
Western Pacific R. R.
Sunol, Calif.,
September 22, 1941.

Location of Accident and Method of Operation

This accident occurred on that part of the Western Division designated as the First Subdivision, which extends between Chestnut Junction and Stockton, Calif., a distance of 67.95 miles. In the immediate vicinity of the point of accident this is a single-track line over which trains are operated by timetable and train orders; there is no block system in use. Time-table directions, which are east and west, are used in this report. At Sunol a siding 1,598 feet in length parallels the main track on the north. The east switch of this siding is 132 feet east of the station. The accident occurred at a point about 1.5 miles east of the east siding-switch at Sunol. As the point of accident is approached from the east there are, in succession, a tangent 1,081 feet in length, a 1° curve to the left 388 feet, a tangent 2,057 feet and a 2° curve to the right 468 feet to the point of accident and 1,130 feet beyond. As the point of accident is approached from the west there are, in succession, a 5°06' curve to the left 1,634 feet in length, a tangent 1,891 feet and the curve on which the accident occurred. At the point of accident the grade for east-bound trains is 0.56 percent ascending. In the vicinity of the point of accident a line of the Southern Pacific Company parallels the Western Pacific Railroad on the north and at the point of accident the two lines are approximately 250 feet apart.

Operating rules read in part as follows:

5. * * *

The time applies to the switch where an inferior train enters the siding; * * * .

S-87. An inferior train must keep out of the way of opposing superior trains and failing to clear the main track by the time required by rule must be protected as prescribed by Rule 99.

Extra trains must clear the time of opposing regular trains not less than five minutes unless otherwise provided, * * * .

RULES FOR ENGINEMEN

1071. Firemen must * * *; and keep in mind all orders and notices regarding the movement of the train, so as to be prepared to correct any oversight or mistake if there should be occasion to do so.

In the immediate vicinity of the point of accident the maximum authorized speed for passenger trains is 60 miles per hour and for light engines, 40 miles per hour.

Description of Accident

Extra 83 West, a west-bound train, consisted of engine 83. This train departed from Stockton Yard, 56 miles east of Sunol, about 8:50 p. m., passed Altamont, 20.5 miles east of Sunol, at 9:57 p. m., according to the dispatcher's record of movement of trains, passed Livermore, 11.6 miles east of Sunol, at 10:11 p. m., and while moving at an estimated speed of about 30 miles per hour collided with No. 40 at a point about 1.5 miles east of the east siding-switch at Sunol. There was no condition of the engine of Extra 83 that distracted the attention of the crew or obscured their vision. The brakes of engine 83 had functioned properly en route.

No. 40, an east-bound first-class passenger train, consisted of engine 179, one baggage car, one Pullman sleeping car, one coach, one chair car, two Pullman sleeping cars, one dining car, two Pullman sleeping cars and one observation car, in the order named. All cars were of steel construction. The brakes of No. 40 had been tested at Oakland Pier, 32.5 miles west of Sunol, and functioned properly en route. This train departed from Chestnut Junction, 30.15 miles west of Sunol, about 9:26 p. m., passed Niles, 6.3 miles west of Sunol and the last open office, at 10:10 p. m., according to the dispatcher's record of movement of trains, 11 minutes late, passed Sunol at 10:20 p. m., according to the statement of the rear brakeman, 12 minutes late, and while moving at a speed of 36 miles per hour, as indicated by the tape of the speed-recorder with which the engine was equipped, collided with Extra 83 West.

Because of track curvature and trees adjacent to the track, the view from the left side of an east-bound engine is restricted to 1,375 feet, 1,475 feet and 1,530 feet at points, respectively, 884 feet, 780 feet and 660 feet west of the point of accident. The view from the right side of a west-bound engine is restricted to the same distances.

The force of the collision moved engine 83 back a distance of 123 feet. The engine and tender were derailed to the right and stopped upright and in line with the track. The engine truck, the smokebox and the engine cab were demolished. The front-end frame and both cylinders were broken. Engine 179 was derailed and stopped on its right side, at an angle of about 30 degrees to the track. The front-end frame and both cylinders were broken. The tender frame remained attached to the engine.

The tender cistern became detached and stopped to the right of the track, at an angle of about 45 degrees to the engine. The first car stopped upright and at almost right angles to the track. The front truck of the second car was derailed. Both cars were badly damaged.

The weather was clear at the time of the accident, which occurred at 10:23 p. m.

The employees killed were the engineer, the fireman and the baggage of No. 40. The employees injured were the engineer and the fireman of Extra 83.

Data

During the 31-day period preceding the day of the accident, the average daily movement over the territory involved was 20.7 trains.

According to the timetable, No. 40 was due to leave Sunol at 10:08 p. m., Pleasanton, 5.5 miles east of Sunol, at 10:15 p. m., and Livermore, 11.6 miles east of Sunol, at 10:25 p. m. There is a siding at each of these stations.

Discussion

The rules governing operation on the line involved provide that an inferior train must keep out of the way of an opposing superior train, and an extra train must clear the time of an opposing regular train not less than 5 minutes. All the employees involved understood these requirements.

No. 40, which was an east-bound first-class train, was due to leave Sunol, 1.5 miles west of the point of accident, at 10:08 p. m. This train passed Sunol at 10:20 p. m., 12 minutes late, and collided with Extra 83 West about 10:23 p. m. No train order restricting the movement of No. 40 had been issued. Extra 83 West did not reach Livermore, 11.6 miles east of Sunol, until 10:11 p. m., and No. 40 was due to leave Pleasanton, 5.5 miles east of Sunol and the first siding west of Livermore, at 10:15 p. m.; therefore, Extra 83 had no authority to proceed beyond Livermore for No. 40. Extra 83 not only proceeded beyond Livermore but also passed Pleasanton and collided with No. 40 at a point 4 miles west of Pleasanton, 20 minutes after the time it was required to be into clear at Sunol, if it proceeded to that station for No. 40.

The surviving members of the crew of No. 40 said that the first they knew of anything being wrong was when the brakes were applied in emergency; then the impact occurred almost immediately.

The crew of Extra 83 consisted of the engineer and the fireman. According to the statement of the engineer, he and the fireman compared time with the standard clock at Stockton Yard. His watch was 15 seconds slow and the fireman's watch was 5 seconds fast. Train orders had been issued specifying that Extra 83 would wait at Altamont, 35.5 miles west of Stockton Yard, until 9:45 p. m. This train departed from Stockton Yard about 8:50 p. m. The engineer did not again check his time until his train passed Altamont about 9:45 p. m. At Livermore, 8.9 miles west of Altamont, his watch indicated the time as 9:50 p. m. and he estimated there was sufficient time to proceed to Sunol, a distance of 11.6 miles, and to clear for No. 40 not later than 10:03 p. m. He did not observe that, according to his check of the time, his train had traveled a distance of 8.9 miles in 5 minutes. The fireman said he did not check the time at any point en route; however, after his train passed Livermore he checked the time No. 40 was due to leave Pleasanton and Sunol but did not consult with the engineer as he depended upon him to comply with the rules.

As Extra 83 approached the point where the accident occurred, the speed was about 40 miles per hour. About 2,000 feet east of the point of accident, the engineer observed the reflection of a headlight on the rails and thought it was a train approaching on the line of the Southern Pacific Company. Soon afterward the engineer realized that No. 40 was approaching. He immediately applied the brakes in emergency and the speed was reduced to about 30 miles per hour at the time of the collision. A few minutes after the accident occurred the engineer checked his watch, which was running at that time, and it indicated 10 O'clock. It was his opinion that his watch had become defective during the trip and had lost 20 minutes en route. The watch was a standard railroad watch and for several months prior to the day of the accident it had operated satisfactorily. It was last inspected 12 days before the accident and was found to be 5 seconds slow. The engineer said it had not been allowed to run down since the last inspection. After the accident, the watch was under observation for a period of 4 days and during that period it kept accurate time.

Trains on the line involved are operated in the vicinity of the point of accident by timetable and train orders only. If an adequate block system had been in use on this line, this accident would not have occurred.

Cause

It is found that this accident was caused by an inferior train occupying the main track on the time of an opposing superior train.

Recommendation

That the Western Pacific Railroad Company establish an adequate block-signal system on the line involved in this accident. An order to show cause why it should not do so will be served on said carrier.

Dated at Washington, D. C., this seventeenth day of November, 1941.

By the Commission, Commissioner Patterson.

W. P. BARTEL,

(SEAL) Secretary.