

INTERSTATE COMMERCE COMMISSION
WASHINGTON

INVESTIGATION NO. 2797
THE ST. JOHNSBURY & LAKE CHAMPLAIN
RAILROAD COMPANY

REPORT IN RE ACCIDENT
NEAR GREENSBORO, VT., ON

MAY 5, 1944

SUMMARY

Railroad: St. Johnsbury & Lake Champlain
Date: May 5, 1944
Location: Greensboro, Vt.
Kind of accident: Head-end collision
Trains involved: Freight : Mixed
Train numbers: Extra 38 East : 75
Engine numbers: 38 : 33
Consist: 7 cars, caboose : 7 cars
Estimated speed: 25 m. p. h. : 25 m. p. h.
Operation: Timetable and train orders
Track: Single; 5°30' curve; 0.89 percent
descending grade westward
Weather: Clear
Time: 4:45 p. m.
Casualties: 1 killed; 3 injured
Cause: Failure to deliver meet order
Recommendation: That the St. Johnsbury & Lake
Champlain Railroad Company
establish an adequate block
system on its line

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 2797

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

THE ST. JOHNSBURY & LAKE CHAMPLAIN RAILROAD COMPANY

June 3, 1944.

Accident near Greensboro, Vt., on May 5, 1944, caused by
failure to deliver a meet order.

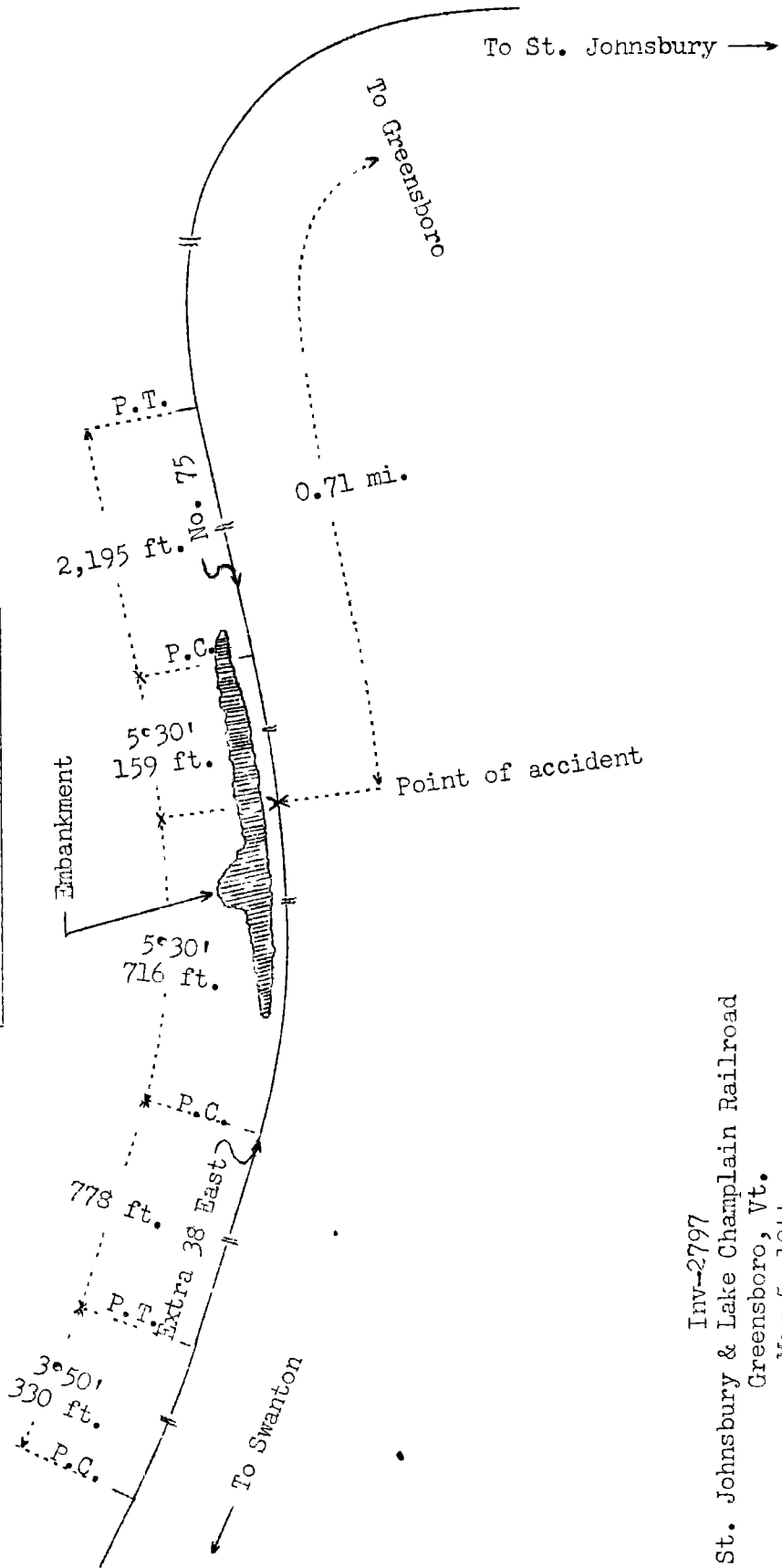
REPORT OF THE COMMISSION¹

PATTERSON, Chairman:

On May 5, 1944, there was a head-end collision between a freight train and a mixed train on the St. Johnsbury & Lake Champlain Railroad near Greensboro, Vt., which resulted in the death of one train-service employee, and the injury of one railway-mail clerk and two train-service employees. This accident was investigated in conjunction with a representative of the Vermont Public Service Commission.

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

○	St. Johnsbury, Vt.	11.48 mi.
○	Danville	16.32 mi.
○	Greensboro	0.71 mi.
X	Point of accident	2.52 mi.
○	Lamoille	3.70 mi.
○	Hardwick	61.37 mi.
○	Swanton, Vt.	



Inv-2797
 St. Johnsbury & Lake Champlain Railroad
 Greensboro, Vt.
 May 5, 1944

Location of Accident and Method of Operation

The St. Johnsbury & Lake Champlain Railroad was a single-track line extending eastward from Swanton to St. Johnsbury, Vt., 96.1 miles. Trains were operated over this line by timetable and train orders. There was no block system in use. The accident occurred 67.59 miles east of Swanton, at a point 0.71 mile west of the station at Greensboro. From the west there were, in succession, a 3°50' curve to the left 330 feet, a tangent 778 feet and a 5°30' curve to the left 716 feet to the point of accident and 159 feet beyond. From the east there was a tangent 2,195 feet, which was followed by the curve on which the accident occurred. At this point the grade was 0.89 percent descending westward.

The train-order signal at Greensboro consisted of a red horizontal target and a lamp mounted on a bracket in front of the station. It was controlled manually by a cable which extended horizontally from a coil spring attached to the spindle, through the north wall of the station, and then vertically downward inside the train-order office. When the cable was pulled downward 7.5 inches and secured by placing a ring, attached to the end of the cable, over a pin on the wall, the target was parallel to the track and a green light was displayed which was the proceed indication for each direction. When the end of the cable was not secured to the pin in the office, the target was at right angles to the track and a red light was displayed, which was the stop indication for each direction. The target was visible from a window in the north wall of the train-order office.

DEFINITIONS.

* * *

Fixed Signal.--A signal of fixed location indicating a condition affecting the movement of a train.

* * *

Operating rules read in part as follows:

91. Unless some form of block signals is used trains in the same direction must keep at least ten minutes apart, except in closing up at stations, * * *

91a. Where train order signals are provided, this signal will be used for the purpose of spacing trains, in accordance with Rule 91. It is imperative that operators place the signal in stop position as soon as the rear of the train passes it and before performing any other duty.

* * *

207. To transmit a train order, the signal "31" or the signal "19" followed by the direction must be given to each office addressed, the number of copies being stated, if more or less than three -- thus, "31, West, copy 5," or "19, East, copy 2."

208. * * *

A train order must not be sent to a superior train at the meeting or waiting point if it can be avoided. When an order is so sent, the fact will be stated in the order and special precautions must be taken to insure safety.

210. When a "31" train order has been transmitted, operators must, unless otherwise directed, repeat it at once from the manifold copy in the succession in which the several offices have been addressed, and then write the time of repetition on the order. Each operator receiving the order should observe whether the others repeat correctly.

Those to whom the order is addressed, except enginemen, must read it to the operator and then sign it, and the operator will send their signatures preceded by the number of the order to the Superintendent. The response "complete," and the time, with the initials of the Superintendent, will then be given by the train dispatcher. Each operator receiving this response will then write on each copy the word "complete," the time, and his last name in full, and then deliver a copy to each person addressed, except enginemen. The copy for each engineman must be delivered to him personally by the conductor; the engineman will then read the order to the conductor and sign the conductor's copy before proceeding.

* * *

220. Train orders once in effect continue so until fulfilled, superseded or annulled. * * *

* * *

221. A fixed signal must be used at each train order office, which shall indicate "stop" when trains are to be stopped for train orders. When there are no orders the signal must indicate "proceed."

When an operator receives the signal "31," or "19," followed by the direction, he must immediately display the "stop signal" for the direction indicated and then reply "stop displayed," adding the direction and until the orders have been delivered or annulled the signal must not be restored to "proceed." While "stop" is indicated, trains must not "proceed" without Clearance Card A.

* * *

223. The following signals and abbreviations may be used:

* * *

31 or 19 -- to clear the line for Train Orders, and for Operators to ask for Train Orders.

* * *

FORMS OF TRAIN ORDERS.

* * *

A.

Fixing Meeting Points for Opposing Trains.

(1.) * * *

No 5 meet Extra 95 east at B.
* * *

* * *

Trains receiving these orders will run with respect to each other to the designated points and there meet in the manner prescribed by the Rules.

The maximum authorized speed for the trains involved was 35 miles per hour.

Description of Accident

At Hardwick, 6.93 miles west of Greensboro, the crew of Extra 38 East an east-bound freight train, received copies of train order No. 15, Form 19, reading as follows:

No 75 Eng 33 Meet Extra
38 East at Greensboro.
This order to No 75 at
Greensboro.

Extra 38 East, consisting of 7 loaded cars and a caboose, departed from Hardwick at 4 p. m., passed Lamoille, the last open office, 3.23 miles west of Greensboro, at 4:36 p. m., and while moving at an estimated speed of 25 miles per hour it collided with No. 75.

No. 75, a west-bound second-class mixed train, consisting of engine 33, 6 freight cars and one mail-baggage-passenger car, in the order named, departed from Danville, 16.32 miles east of Greensboro, the last open office east of Greensboro, at 3:50 p. m., on time, departed from Greensboro, where the crew should have received copies of train order No. 15, Form 31, requiring their train to meet Extra 38 East at Greensboro, at 4:42 p. m., 2 minutes late, and while moving at an estimated speed of 25 miles per hour it collided with Extra 38 East.

Engines 38 and 33 stopped upright and in line with the track. The front end, the cab and the tender of each engine were considerably damaged. The first car of each train was slightly damaged.

From an engine moving in either direction in the vicinity of the point where the accident occurred, the view of a train approaching from the opposite direction was restricted to a distance of about 250 feet, because of an embankment and vegetation on the inside of the curve.

It was clear at the time of the accident, which occurred about 4:45 p. m.

The fireman of No. 75 was killed. The conductor and the engineer of Extra 38 East were injured.

During the 30-day period preceding the day of the accident the average daily movement in the vicinity of the point of accident was 4.6 trains.

Discussion

The rules governing operation on this line provide that when an operator at a train-order office receives instruction to copy a train order, the train-order signal must immediately be displayed to indicate stop and the signal must remain so displayed until the train order has been delivered to all trains addressed. Train orders must not be sent to a train which is

to be restricted at the meeting or waiting point, if it can be avoided. When the order is so sent, the fact must be stated in the order and special precautions taken to insure safety. When a form 31 train order has been received for delivery to a train, the operator must procure the signature of those to whom the order is addressed, except engineers, and send the number of the order and the signature to the train dispatcher. The response "complete" and the time, with the initials of the superintendent, will then be given by the dispatcher. The operator will then write the word "complete", the time and his lastname in full on the order, and then deliver a clearance form and copies of the order to each person addressed, except engineers. The copy for each engineer must be delivered by the conductor, and each engineer must read the order to the conductor and sign the conductor's copy before the train is permitted to proceed. Train orders remain in effect until fulfilled, superseded or annulled. The dispatcher and the operator concerned in this investigation understood these requirements.

At Hardwick the crew of Extra 38 East received copies of train order No. 15, which established Greensboro as the meeting point between Extra 38 East and No. 75. The order was sent to the operator at Greensboro for delivery to No. 75, but it was not delivered to the crew of that train. This resulted in a lap of authority of the trains involved, as the crew of Extra 38 East held an order authorizing its train to proceed to Greensboro to meet No. 75, but the crew of the latter train had no knowledge of the order affecting the authority of their train to proceed. These trains collided at a point 0.71 mile west of the station at Greensboro. Because of an embankment and vegetation on the inside of the curve, the members of the crew on the engine of each train were unable to see the other train more than a few hundred feet. The accident occurred before effective action could be taken to stop either train.

The train dispatcher said that it was not possible for him to arrange a meeting point between the trains involved until he received information that Extra 38 was ready to depart from Hardwick. When he received this information, No. 75 had departed from Danville, the last open office east of Greensboro, and he sent order No. 15 to the operator at Greensboro for delivery to No. 75. The order contained information that No. 75 was to receive the order at Greensboro. The operator at Greensboro said that prior to the time he received instructions from the train dispatcher to display the train-order signal at stop and to copy order No. 15, he had placed the signal in stop position to deliver an order to No. 74, an east-bound train. After No. 74 departed, the signal remained in stop position to provide a 10-minute interval between that train and following trains, in accordance with the rules. By the time he received

the instruction to copy order No. 15, he had forgotten that the signal was displaying stop, and, thinking that the signal was displaying proceed, he changed its indication and unintentionally caused it to display proceed instead of stop. Prior to the arrival of No. 75 and until after its departure, the signal displayed proceed. During the time No. 75 was at Greensboro, the operator was engaged in handling baggage and express, and he did not observe the position of the train-order signal until after he returned to the office to deliver the order. Then he observed that the train was moving and that the signal displayed proceed. He made an unsuccessful attempt to attract the attention of the crew.

On the line of this carrier trains are operated by timetable and train orders only. If an adequate block system had been in use, these opposing trains would not have been permitted to occupy the same block simultaneously, and the accident would not have occurred.

Cause

It is found that this accident was caused by failure to deliver a meet order.

Recommendation

It is recommended that the St. Johnsbury & Lake Champlain Railroad Company establish an adequate block system on its line.

Dated at Washington, D. C., this third day of June, 1944.

By the Commission, Chairman Patterson.

(SEAL)

W. P. BARTEL,
Secretary.