

Inv-2051

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INTERSTATE COMMERCE COMMISSION,  
WASHINGTON

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REPORT OF THE DIRECTOR  
BUREAU OF SAFETY

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ACCIDENT ON THE  
BOSTON & MAINE RAILROAD

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CLAREMONT JUNCTION, N.H.

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MARCH 12, 1936

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INVESTIGATION NO. 2051

Dept. of Transportation

JUL 13 1976

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SUMMARY

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Railroad: Boston & Maine

Date: March 12, 1936

Location: Claremont Junction, N.H.

Kind of accident: Collision

Trains involved: Freight : Freight

Train numbers: B. & M. Extra 2730 : C.V. Extra 461

Engine numbers: 2730 : 461

Consist: 7 cars, caboosc : 56 cars, caboosc

Speed: Backing up main : Heading out pass-  
track; 10-25 m.p.h. : ing track; 6-12  
: m.p.h.  
:

Track: 1° 45' curve to left, then tangent  
225 feet to point of accident;  
automatic block signals

Weather: Raining and dense fog

Time: 1:25 p.m.

Casualties: 1 killed

Cause: Failure of flagman of B. & M. train to  
maintain a proper lookout and to properly  
control the speed of his train while  
making a back-up movement; failure of  
conductor and flagman of C.V. train to  
afford proper flag protection for move-  
ment from siding to main track.

May 20, 1936.

To the Commission:

On March 12, 1936, there was a collision between a Central Vermont Railway freight train and a Boston & Maine Railroad freight train on the tracks of the latter railroad near Claremont Junction, N.H., which resulted in the death of 1 employee. This accident was investigated in conjunction with the New Hampshire Public Service Commission.

#### Location and method of operation

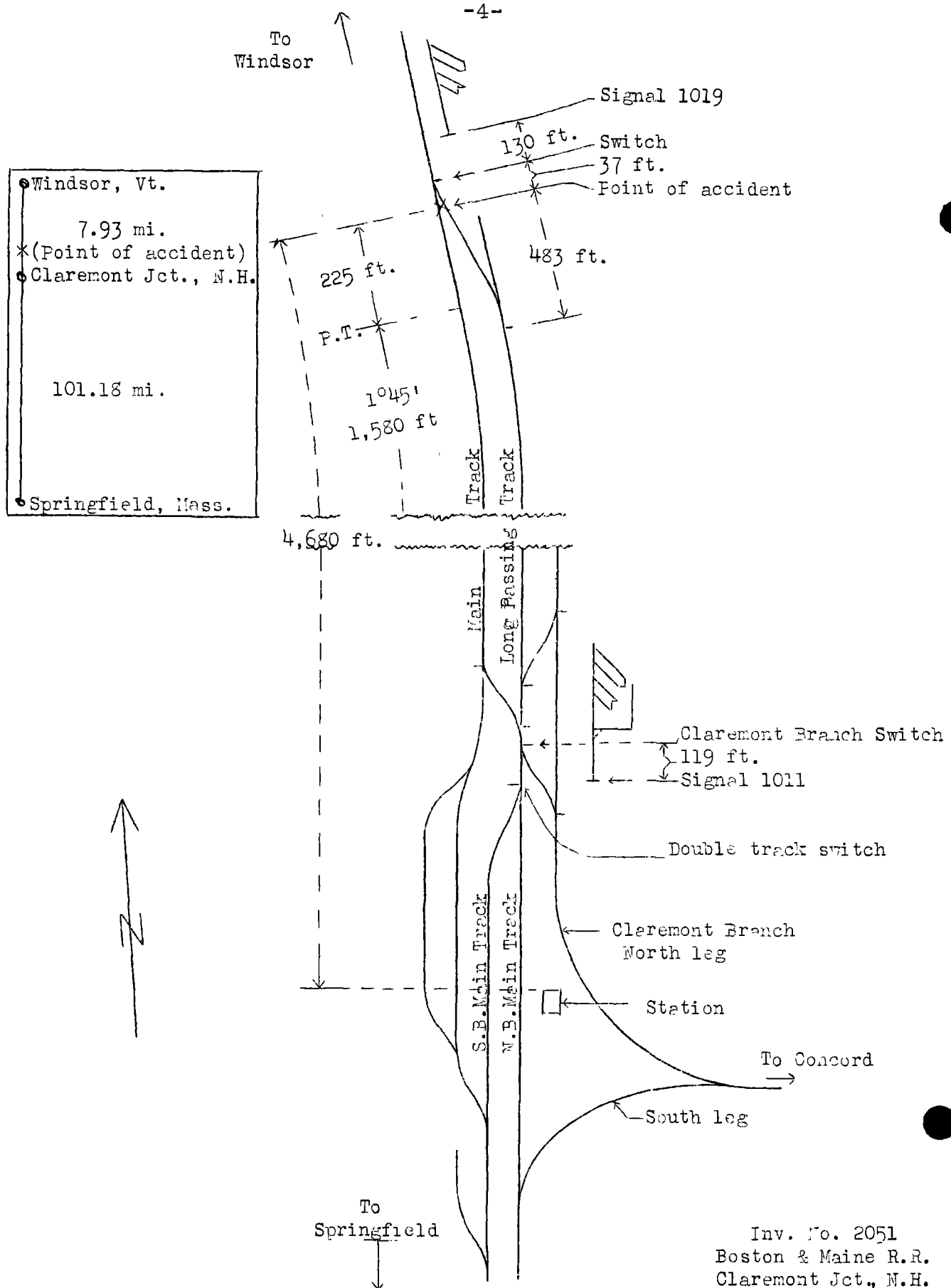
This accident occurred on that part of the Fitchburg Division extending between Springfield, Mass., and Windsor, Vt., a distance of 109.11 miles; in the immediate vicinity of the point of accident this is a single-track line over which trains are operated by time table, train orders and an automatic block-signal system. The accident occurred at a point 4,680 feet north of the station at Claremont Junction, 37 feet south of the north switch of a cross-over leading from the passing track to the main track; approaching this point from the south there is a 1° 45' curve to the left 1,580 feet in length, then the track is tangent for about 225 feet to the point of accident, and for a considerable distance beyond. The grade at the point of accident is 0.395 percent ascending for north-bound trains.

The station at Claremont Junction is located in the north angle of a wye east of the main track. A passing track about 4,000 feet long parallels the main track on the east, the south switch of which is located approximately 900 feet north of the station; due to an extension on the north end of the passing siding, the connection with the main track at this point is made through a cross-over. The north leg of the wye connects with the main track through a cross-over located about 650 feet north of the station; northbound automatic block-signal 1011, governing main track movements, is located on the east side of the tracks 119 feet south of the north switch of this cross-over and between its switches; automatic block-signal 1019 is located 4,300 feet north of signal 1011 and 130 feet north of the main line switch at the north end of the passing track.

It was raining and a dense fog prevailed at the time of the accident, which occurred about 1:25 p.m.

#### Description

Extra 461, a northbound freight train of the Central Vermont Railway, consisted of 56 cars and a caboose, hauled by engine



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Boston & Maine R.R.  
Claremont Jct., N.H.  
March 12, 1936.

461, and was in charge of Conductor Robinson and Engineman Epps. This train arrived at Claremont Junction over the Fitchburg Division at 12:06 p.m., according to the train sheet, following which the engine was detached and took water; then the train entered the passing track for first-class Trains Nos. 72 and 73. Northbound Train No. 73 arrived at Claremont Junction at 1:09 p.m., according to the train sheet, and departed at 1:11 p.m., and according to statements of the crew of Extra 461 it passed the north switch of the passing track at 1:14 p.m., after which the cross-over switches leading to the main track at that point were opened. Four minutes later the engineman of Extra 461 sounded two long blasts of the whistle and the train started out upon the main track. The caboose had nearly cleared the cross-over and this train was traveling at a speed estimated to have been between 6 and 12 miles per hour when the caboose was struck by the caboose of Extra 2730.

Extra 2730, a northbound local freight train of the Boston & Maine Railroad, at the time of the accident consisted of 7 cars and a caboose, and was in charge of Conductor Harrington and Engineman Gallagher. This train arrived at Claremont Junction at 12:30 p.m., according to the train sheet, and pulled in on the south leg of the wye, then backed around the north leg of the wye to the station where a stop was made to do station work; after checking the train register and receiving authority to run extra to Windsor, the train waited for northbound first-class train No. 73 to pass; the crossover switches leading from the north leg of the wye to the main track were then opened and Extra 2730 backed out upon the main track north of automatic block-signal 1011, Flagman Jones handling the back-up hose; the train had backed northward about 4,600 feet and was traveling at a speed estimated to have been between 10 and 25 miles per hour when its caboose collided with the caboose of Extra 461.

The caboose of Extra 461 was knocked off center and the left rear steps and rear platform were damaged; it stopped about 8 car lengths north of the point of accident after the air brakes had been applied by opening the angle cock at the rear of the caboose. The caboose of Extra 2730 was telescoped by the car behind it, both being derailed and destroyed. The employee killed was the conductor of Extra 2730.

#### Summary of evidence

Engineman Epps, of Extra 461, stated that as soon as Train No. 73 passed at 1:14 p.m. both switches of the cross-over at the north end of the passing track were opened, following which his train waited 4 minutes before he whistled off and headed out upon the main track. When his train started to pull out at 1:18

p.m. signal 1019 was displaying a red indication, but the indication changed to yellow before the engine reached the signal. Due to the dense fog visibility was limited to about 12 car lengths and he had the headlight burning, as he considered the weather conditions such as to warrant the use of night signals; he also said that the markers were burning on Train No. 73 when that train passed. Fireman Hawkes and Head Brakeman Spaulding gave testimony similar to that of Engineman Epps. None of these employees was aware of anything wrong until the air brakes were applied in emergency from the rear; the engineman estimated the speed to have been 6 or 7 miles per hour when his caboose was about at the cross-over. Head Brakeman Spaulding figured that the flagman would afford protection for the movement from passing track to main track, saying it was his understanding that the B. & M. rules required that two torpedoes be placed on the rail and a lighted red fusee be placed on the engineman's side when leaving a siding to enter main track.

Conductor Robinson, of Extra 461, stated that he had been on this run about 7 or 8 years; his train waited until 1:18 p.m., 4 minutes after Train No. 73 had passed before starting to move from the passing track to the main track and his caboose had moved forward about 2 car lengths when the flagman threw a lighted 5-minute fusee across to the main track, but as was customary at this point, no torpedoes were put down. After his caboose passed over the inside switch at the north end of the passing track his flagman closed the switch, then boarded the right side of the caboose, to ride to the main track switch. The flagman then saw the caboose of the following train backing up and immediately shouted a warning of danger and jumped. When about 3 car lengths away Conductor Robinson also saw the approaching caboose through the dense fog and was positive there was no one riding on the rear platform or steps and that the door of the caboose was closed, and after the accident he found both the conductor and the flagman of that train inside the caboose; he estimated the speed of his own train at the time of the collision to have been about 12 miles per hour and that of the following train about 20 or 25 miles per hour. He jumped from his caboose immediately before the accident occurred, which he said was about 1:25 p.m. Conductor Robinson knew Extra 2730 was at Claremont Junction but felt that the fusee thrown off when his own train was pulling out on the main track was sufficient protection, on account of signal 1011 behind him, saying that Extra 2730 would have to pass this signal before overtaking him, and his statements indicated that he felt he could depend fully on this signal to protect him; he further stated that he thought this signal would take care of any train coming along, also that it was not his practice to pull off from all sidings on the B. & M. in the manner followed in this case, an exception being made here because of the block, and he said that according to his understanding of the rules, it was not

necessary to use torpedoes when making a movement from siding to main track if there was an automatic block-signal to the rear to afford protection. After the accident the engineman of Extra 2730 told him that he thought Extra 461 had gone on to Windsor.

Flagman Stockwell, of Extra 461, said he had been on this run intermittently for the past 15 years; on account of the protection afforded by signal 1011 at the south end of the passing siding, which he understood was manually operated from the station and protected a train pulling out of the north end of the siding, it was not his practice to put down torpedoes on the main track at this location when heading out at the north end, although he knew the rules required him to do so; however, he said, he usually threw off 2 lighted 5-minute fusees instead of but one as in this instance; this has been his customary method of protecting such movements for a considerable length of time in the past and although he had flagged with a number of different conductors during that time, none of them, nor any official, had ever taken exception to the practice. He knew Extra 2730 was at Claremont Junction but did not know at what time it would depart. After throwing off the fusee he remained on the rear platform of his caboose looking toward the south, and said that he saw the reflection of the burning fusee in the fog as his caboose passed over the inside switch of the cross-over at the north end of the siding; he had previously stated that it was foggy and raining and he was able to see but a distance of 4 or 5 car lengths. When he first saw the caboose of Extra 2730 it was about 6 or 7 car lengths away; the door was closed and there was no one on the platform prior to the accident. He said the markers on his own caboose were burning and displayed red to the rear.

Flagman Jones, of Extra 2730, stated that he was at the station when Train No. 73 departed and that he immediately walked to the cross-over and lined both switches for a movement from the north leg of the wye to the main track, after which he returned to the caboose, gave a back-up signal to the head end and got on the rear of the caboose. He did not notice the position of signal 1011 when he threw the switches, but said that even though it had displayed a stop indication he would have thought it was because Train No. 73 was still occupying the block; he did not consult his watch at any time; the conductor told him they were to follow Train No. 73 and as he estimated that the required 3 minutes were consumed between the time he lined the switches and the time he reached the caboose, he gave a back-up signal and the train proceeded, which he thought was about 10 minutes after Train No. 73 had passed. He had been working on this particular run more or less during the past 5 or 6 years and said that the procedure followed on the day of the accident was the usual practice. It was raining and foggy and he thought he could see a distance of about

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5 or 10 car lengths leaving Claremont Junction; he thought weather conditions were such as to require the use of night signals but stated that he had none ready for use, nor were the markers on his caboose burning. He rode on the lead platform of the caboose until his glasses became misty with rain and fog; he assumed he was nearing signal 1019, and in order to assure seeing the signal, he removed his glasses and stepped partly into the doorway to throw them on a bunk, and upon looking around again he saw the caboose of Extra 461 about 2 car lengths away; there was not time for him to jump from the platform but he shouted a warning to the conductor and entered the caboose; the collision followed immediately. He did not hear Extra 461 whistle off nor did he see a burning fusee or hear torpedoes explode. He stated that the back-up hose was in position on the rear of the caboose and was connected to the train line but that it was not tested before leaving Claremont Junction nor was it customary to make such a test. He estimated the speed of his train while moving on the main track to have been about 10 miles per hour during the back-up movement and stated that on this run a back-up movement is always made between Claremont Junction and Windsor.

Fireman Quinn, of Extra 2750, was inside the caboose eating lunch during the back-up movement from Claremont Junction and paid no particular attention to the operation of the train or the location of the conductor or flagman, nor did he notice a burning fusee, and he was unaware of anything wrong prior to the accident. He said that no warning of danger was shouted and he estimated the speed to have been between 10 and 15 miles per hour en route. Engineman Gallagher and head Brakeman Kiniry were on the engine during the back-up movement; they estimated the speed to have been between 10 and 15 miles per hour and said that the dense fog restricted vision to a distance of about 3 car lengths; they did not encounter any burning fusee, and were not aware of anything wrong until the train stopped as a result of the accident. Engineman Gallagher said that he did not know Extra 461 was on the passing track at Claremont Junction, but thought it had proceeded to some other point to clear for Trains Nos. 72 and 73; he left the control of his train and the observance of and compliance with signal indications to the man operating the back-up hose.

Assistant Signal Supervisor O'Connell tested the signal apparatus involved after the accident and found it to be in proper working order.

#### Discussion

Both of the trains involved in this accident were into clear at Claremont Junction for Train No. 73, and immediately after it had passed each of them prepared to move out upon the main track.



Rule 513 requires a train entering main track protected by block signals to wait 3 minutes after opening the main track switch before proceeding out upon the main track. Enginemen must give a prescribed whistle signal and receive a prescribed hand signal from the rear end before permitting the train to foul the main track. This does not relieve employees from protecting their train as prescribed by rules 99 and 893. Rule 99 requires that when a train is moving under circumstances in which it may be overtaken by another train the flagman must take such action as may be necessary to insure full protection. By night, or by day when the view is obscured, lighted fusees must be thrown off at proper intervals. When day signals cannot be plainly seen, owing to weather or other conditions, night signals must also be used. Rule 893 requires flagmen to protect their trains when taking or leaving sidings. The rules also provide that block signals do not dispense with the use or observance of other signals whenever and wherever required.

According to the evidence Extra 461 waited more than the required 3 minutes after the switch was opened before entering the main track at the north end of the passing track, but proper rear-end protection was not afforded. Conductor Robinson and Flagman Stockwell said that one lighted 3-minute red fusee was thrown across to the main track after their caboose had moved forward about two car lengths, but as signal 1011 was behind them no torpedoes were put down and it was not customary to put them down at this particular location when heading out of the siding. The statements of these employees clearly indicate that instead of protecting their train as required by Rule 99 they were depending largely upon block signal 1011 for protection, which was also in conflict with the requirement of Rule 505, which states that block signals will not dispense with the use or observance of other signals whenever and wherever they may be required.

Signal 1011 is located east of the north leg of the wye and between the switches of the cross-over leading from the north leg of the wye to the main track. This signal governs the movement of north-bound trains on the main track and as a train moving from the north leg of the wye does not encounter the main track for a distance of 119 feet north of the signal, a train from the wye enters the main track between block signals. Rule 509-c requires a train entering the main track between block signals at initial station or junction point to run at restricted speed to the next block; restricted speed is defined as: "Proceed prepared to stop short of train, obstruction, or anything that may require the speed of a train to be reduced."

Flagman Jones was in charge of the back-up hose as Extra 2730 made the movement northward from Claremont Junction; this was the first time he had served as flagman on this job, although he had been in the service 29 years and had worked extra on this run for the past 5 or 6 years. He claimed that he rode on the rear of the caboose until just prior to the accident, but saw no burning fusee at any point; he said that on hearing signal 1019 his glasses became dimmed by the fog and rain and he took them off in order to watch for that signal, then opened the caboose door and stepped inside to leave his glasses, and as he turned to go outside again he saw the other caboose ahead, and the accident occurred immediately.

While there is quite a discrepancy between the various estimates of the speed at which Extra 2730 was being operated, it is evident the speed was in excess of a safe rate of speed in view of existing weather conditions and Flagman Jones should have controlled the speed by means of the backup hose to comply with the requirements of safety under such conditions. He displayed further negligence by leaving the platform of the caboose and placing himself in position where he was unable to maintain a proper lookout; there was no one on the platform of the caboose approaching the point of accident, the fireman, the conductor, and Flagman Jones all being in the caboose when the accident occurred.

The evidence in this investigation indicated that lax practices in train operation have developed on this railroad, resulting in disregard and non-uniform understanding of vital rules. It was Conductor Robinson's understanding that the use of torpedoes was not required if there was a block-signal to the rear to afford protection. Flagman Stockwell understood that the rules required the use of torpedoes but had followed the practice of relying on signal 1011 for protection and had omitted the use of torpedoes at this point for some time. Flagman Jones did not have proper night equipment ready for flagging although he admitted the weather conditions were such as to require the use of night signals; the back-up hose was not tested before leaving Claremont Junction nor was it customary to do so, and it was not definitely known whether it was in proper condition for service even though its use might be required at any moment.

#### Conclusions

This accident was caused by the failure of Flagman Jones, of B. & M. Extra 2730, to maintain a proper lookout and to properly control the speed of his train while making a back-up movement, and by the failure of Conductor Robinson and Flagman Stockwell, of C.V. Extra 461, to afford the required rear-end protection for their train while moving from the passing siding to the main track.

Respectfully submitted,

W. J. PATTERSON, Director.