

IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED
ON THE BANGOR & AROOSTOOK RAILROAD NEAR
CARIBOU, ME., ON FEBRUARY 5, 1918.

March 23, 1918.

On February 5, 1918, there was a rear-end collision on the Bangor & Aroostook Railroad near Caribou, Me., between a snow plow extra, a passenger train and a snow plow extra, resulting in the death of 3 passengers, 1 employee and the injury of 21 passengers, 3 employees and 1 mail clerk. After investigation of this accident, the Chief of the Bureau of Safety reports as follows:

The main line of the Northern Division of the Bangor & Aroostook Railroad, on which this accident occurred, is a single track line, extending between Oakfield and Van Buren, Me., a distance of 111 miles. Train movements are governed by train orders and time-table, no block system being in use.

The trains involved in this accident were northbound snow plow extra 142, consisting of snow plow, locomotive 142, caboose and flanger, in charge of Conductor Stairs and Engineman Kenyon; northbound passenger train No. 9 consisting of locomotive 83 and 4 cars, en route from North Maine Junction to Van Buren, in charge of Conductor Crockett and Engineman Stinson; and northbound snow plow extra 59, consisting of snow plow, locomotive 59, caboose and flanger, in charge of Conductor Briggs and Engineman Somerville.

Snow plow extra 142 left Oakfield, the southern terminus of the Northern Division, at 6.13 p.m., 20 minutes ahead of the leaving time of train No. 9, for the purpose of clearing the roadway for that train. At Houlton, 18 miles north of Oakfield, the crew was changed, and an order given them instructing them to run the snow plow ahead of train No. 9, and it left there at 7.07 p.m. At Littleton, 8 miles further north, it was delayed 38 minutes in meeting southbound trains, left there and passed Presque Isle, 37.5 miles north of Littleton, at 10.17 p.m., Presque Isle being 14.6 miles south of Caribou and the last open telegraph office before reaching that place, and was struck by train No. 9 at a point 1-2/3 miles south of Caribou, while running at a speed of about 25 miles an hour, the accident occurring at 10.56 p.m.

Passenger train No. 9 left Oakfield at 6.33 p.m., 20 minutes behind extra 142, changed crews and engines at Houlton and left there at 8.23 p.m., 1 hour and 16 minutes behind extra 142. It arrived at Presque Isle before the 10 minutes required by rule had elapsed after the departure

of extra 142, and was held until that time had expired, leaving there at 10.27 p.m., and collided with extra 142 while running at a speed of about 35 miles an hour.

Snow plow extra 59 left Houlton at 9.10 p.m., left Presque Isle at 11.17 p.m., 40 minutes behind train No. 9, and at 11.50 p.m. collided with that train while running at a speed of 20 or 25 miles per hour.

Three passengers and the flangerman on extra 142 were killed. The caboose and flanger car of extra 142 were destroyed and the snow plow damaged; the front end of locomotive 83 and three of the cars of train No. 9 and the front end of locomotive 59 were considerably damaged.

Approaching the scene of the accident from the south and starting at Dows Siding, which is on a tangent, there is a 1-degree 45-minute curve to the right about 1,800 feet long, followed by a tangent about 1,200 feet long; then a 30-minute curve to the left 1,300 feet long; then a tangent 1,200 feet long; then a 1-degree 30-minute curve to the left 650 feet long and a tangent 900 feet to the point of accident. From the south end of the first curve mentioned, the grade is level for a distance of 400 feet, and then ascends northwardly, at the rate of .54% for a distance of 2,600 feet, then is level for 200 feet. It then descends at the rate of .57% for 1,900 feet to another piece of level track 500 feet long, after which it ascends for a distance of 700 feet at the rate of .57% with 200 feet of level track following, when it again descends at the rate of .67% for a distance of 500 feet to the point of collision. From a point 1/2 mile south of the point of accident, the engineman's view on a northbound train is unobstructed, as he can see across the last curve before reaching the point where the accident occurred. At the time of the accident the weather was clear and cold, the thermometer registering about 30 degrees below zero. A heavy snow had fallen on the day previous to the accident.

Conductor Stairs, of extra 142, stated that his train consisted of a snow plow, locomotive, caboose and flanger car, in the order named, and before leaving Houlton he received orders to run his train ahead of trains Nos. 9 and 7 to Van Buren, and to meet extra 57 and train No. 10 at Littleton. The first stop after leaving Houlton was at Littleton, for the purpose of meeting those trains, and after stopping at Bridgewater and Phair he arrived at Presque Isle and registered. He left Presque Isle at 10.17 p.m., and from a point about 1/2 mile north of there to point of accident the speed of his train varied from 25 to 30 miles

an hour, the average rate of speed being about 24 miles an hour. He was riding in the caboose and the first intimation he had of the accident was when the rear end of his train was struck and the rear end of the caboose lifted off the track. He said he knew train No. 9 was following his train, and that under time card rule that train could run at a speed not to exceed 40 miles an hour, but did not know how far that train was behind his train. He also was familiar with the rule permitting trains to leave a station 10 minutes after the preceding train had departed. He stated that he did not protect his train by flag or fusee, for he thought its speed was sufficient to keep it clear of train No. 9, and as the engineman of train No. 9 knew extra 142 was somewhere ahead, he should have been looking out for it. Inasmuch as the flanger car was on the rear of the caboose, he did not see how he could have dropped off a fusee, unless it was thrown to one side or between caboose and flanger car, and at the speed his train was moving there was not much chance of the fusee staying on the track. He stated that there was no rule as to the speed snow plows should make, but believed they were to make the best speed possible.

Engineman Kenyon, of extra 142, stated that his train left Houlton ahead of train No. 9, met two trains at Littleton, stopped at Bridgewater and received permission from the dispatcher to proceed, stopped at Phair and again at Presque Isle, and had reached a point about 1-1/2 miles south of Caribou when the rear of his train was struck by train No. 9, the speed of his train being about 25 miles an hour at that time. Leaving Presque Isle he reduced speed to about 6 miles an hour for a distance of about 1/2 mile while going over the crossings, but the remainder of the distance from Presque Isle to point of accident was at a speed of from 25 to 30 miles an hour. He said he did not know how far train No. 9 was behind him, but he was trying to make the schedule speed of that train and keep ahead of it. He thought an engineman on an approaching train ought to see the rear lights of a train at point of accident about a half mile before reaching there, but as a flanger throws up quite a quantity of snow, those lights might be entirely obscured.

Engineman Stinson, of train No. 9, stated that he received an order at Houlton stating that extra 142 was running ahead of his train to Van Buren, and he left there about 8.29 p.m. When he arrived at Presque Isle at about 10.27 or 10.28 p.m. he asked the conductor about extra 142, and was told that it had left there at 10.17 p.m. His train then left Presque Isle and as he passed through Maysville he looked at his watch, saw it was 10.46 p.m., and

remarked to his fireman that "Extra 142 should be leaving Caribou now." He said he frequently looked ahead, but it was so cold he could not keep his head out of the cab window continually, and the locomotive was throwing up the loose snow, and that, together with the steam, made it impossible for him to see at all times; the only way he could tell exactly where he was, was by the landmarks along the right of way. He did not see extra 142 nor any markers or lights, and was working steam and running at a speed of about 35 miles an hour when he collided with that train. He immediately applied the air brakes in emergency, went forward to see what his train had struck, then went back to the rear of his train and saw the flagman was going back. In about 15 minutes the rear end of his train was struck by extra 59. He said he had the cab window open all the time after leaving Presque Isle, as he understood extra 142 had the right to run ahead of his train at any speed it might maintain, that it was wholly his business to look out for that train, and that he was using the greatest care in view of the circumstances. He thought the speed of his train from Presque Isle to point of accident varied from 20 to 35 miles an hour, and said he was expected to make passenger train time. He stated that under normal conditions he could have seen the rear of extra 142 about 3/4 of a mile before reaching the point of accident, but with the flanger ahead loosening up the snow and the escaping steam the rear view of extra 142 would be almost entirely obscured at a distance of 50 feet, regardless of any snow or steam blowing around the locomotive of his train.

Conductor Crockett, of train No. 9, stated he was riding in the mail car checking tickets when the collision occurred, and as soon as he got off the train he told Flagman Nevers to hurry back and protect the rear of the train. He also asked Brakeman Steeves to go back and see that the flagman was back the proper distance, went to Caribou on the locomotive of extra 142 to secure doctors, and when he returned Brakeman Steeves reported to him that the flagman had gone back the proper distance; the second collision occurred while he was at Caribou. He said that when he was at Presque Isle he consulted the register book, found that extra 142 had left there ten minutes previously, and advised Engineman Stinson of that fact. He said it was customary for a snow plow to make the same speed of the following train, and when extra 142 did not make the scheduled speed of train No. 9, it was the duty of the crew of that train to drop fusees to warn the following train. From statements made to him by Flagman Nevers he estimated that the flagman was back over a half mile from the rear of his train.

Fireman Stanley, of train No. 9, stated that snow blowing and steam escaping around the pistons on the locomotive made it difficult to see ahead, and he thought the speed of his train was about 35 miles an hour at the time of the collision. He said Engineman Stinson kept the cab window closed part of the time, opening it when he desired to look out, and then closing it, and thought it was closed at the time of the accident.

Flagman Nevers, of train No. 9, stated that he was riding in the smoking car when the collision occurred and he immediately ran to the rear of his train, secured fusees, red lantern, and other flagging material, and went back to protect the rear of his train. He said he went back a distance of about 18 telegraph poles, put down one torpedo, then put another torpedo down about one rail length further back, and after remaining there about 40 minutes he heard extra 59 approaching. He lighted a fusee just before that train came in sight, stood on the track and gave stop signals, and when he saw that that train was not going to stop, he jumped to one side of the track and threw the red lantern at the engine, in an effort to attract the engineman's attention. He said the engineman was working steam when he passed him, and the train was traveling at a high rate of speed, but he did not see the engineman. He did not hear an explosion of the torpedoes, but thought that was because he was partially buried in the snow.

Brakeman Steeves, who was deadheading on train No. 9, stated that as soon as the first collision occurred he picked up a red lantern for the purpose of going back to flag, saw Flagman Nevers getting ready to go back, and gave him the red lantern, and Flagman Nevers had red and white lights, two fusees and several torpedoes when he started back to flag. He stated that he went to the head end of his train, but upon the request of Conductor Crockett he walked back to see if Flagman Nevers had gone back a sufficient distance, saw that he was out a safe distance, and returned to the wreck, the second collision occurring about three minutes after he had gotten back to his train.

Engineman Somerville, of extra 59, stated that when his train left Houlton he knew train No. 9 was ahead of his train and had that train in mind, but did not know how far ahead it was. He said he had the cab window open all the time after leaving Presque Isle, but could not keep his head out of the window all the time on account of the snow, and was working steam at the time of the collision, the speed of his train being about 20 or 25 miles an hour at the time. The smoke, steam, and flying snow made it impossible to see anything distinctly, the front window of the

cab was frosted and he could not see through it, and at times it was impossible to see anything. He said he did not see the rear of train No. 9 before the collision, but just an instant before the collision he thought he saw a reflection of something but did not have time to shut off steam. He said he had no warning whatever before the collision occurred, did not hear the explosion of any torpedoes, and did not know that the flagman threw a lantern at his engine as he passed.

Conductor Briggs, of extra 59, stated that he knew train No. 9 was running ahead of his train, that he checked the register at Presque Isle, but as train No. 9 was then 25 or 30 minutes ahead of his train he did not say anything about that train to Engineman Somerville.

Fireman Deakin, of extra 59, stated that he did not see train No. 9, or a flagman or hear any explosion of torpedoes before the collision occurred. He said the steam escaping from around the pistons and the loose snow made it impossible to see very much.

Brakeman Leighton, of extra 59, stated that when his train collided with train No. 9 he went back to flag, saw the flagman of train No. 9, who was standing about 1/2 mile from the rear of train No. 9, and relieved him. At that time Flagman Nevers had a white lantern, a broken red lantern which he had thrown at extra 59, and a fusee was burning when he reached there. He considered that Flagman Nevers had gone back a sufficient distance to afford full protection to train No. 9, had the engineman of extra 59 observed his signals, and saw the place where he believed a torpedo had been put down by the flagman.

Dispatcher Devoe stated that he issued the order directing extra 142 to run ahead of train No. 9 from Houlton to Van Buren and the extra left Houlton at 7.07 p.m., Littleton at 8.23 p.m., and Westfield, 25 miles south of Caribou, at 9.31 p.m., this being the last he heard from that train until about 11.10 p.m., when he was told it had been struck by train No. 9. He immediately called the operator at Presque Isle in an effort to stop extra 59, was told that it had left there about three minutes previously, and at about 11.40 or 11.45 p.m. the operator at Caribou informed him that it had collided with the wreckage of extra 142 and train No. 9. He said the reason he did not hear anything concerning extra 142 and train No. 9 from the time they left Westfield, was because during that period his time was taken up in giving and changing instructions to crews on the Ashland Branch on account of

a disabled engine on a snow plow. He stated that he called the operator at Presque Isle about 11.45 or 12 o'clock and received reports from him on extra 142, train No. 9 and extra 59 all at the same time. He stated that snow plows operating ahead of passenger trains are expected to maintain the schedule speed of the following train, and he had received reports from train crews concerning the snow and weather conditions that made him believe that extra 142 could make the same speed as train No. 9. He also said that when he issued the order for extra 142 to run ahead of train No. 9 and gave a copy of it to the crew of the latter train, that would give notice to the following train that they were to keep a lookout ahead for extra 142.

Superintendent McMann stated that a snow plow running ahead of a passenger train is expected to maintain the schedule speed of the passenger train, but if the snow plow fails to make the speed of the following train the crew is expected to drop off fusees, and the crew of extra 142 should have taken this precaution. In case of bad snow storms, or high wind, the snow plow and following train must be spaced one station apart.

This accident was caused primarily by Engineman Stinson of train No. 9 operating his train at too high a rate of speed under the weather conditions prevailing, knowing that he was closely following snow plow extra 142, and the failure of Engineman Somerville of extra 59 to observe and obey stop signals given by the flagman of train No. 9.

With reference to the first collision, the evidence is clear that Engineman Stinson knew that extra 142 was but a short distance in advance of his train, it having left Presque Isle ten minutes before his train. He also knew that on account of the character of work extra 142 was doing it was likely to proceed at a speed much less than the speed of his train, and furthermore that the flying snow and escaping steam greatly obscured his vision, all of which should have made him proceed with extreme caution and care.

The evidence also shows that immediately after the first collision, Flagman Nevers of train No. 9, went back about a half mile with proper flagging material to protect the rear end of his train; that he put two torpedoes on the rail, and as extra 59 approached he stood on the track waving a lighted red lantern and a burning fusee, and jumped off the track and threw the lantern at the locomotive as it passed him, in an effort to attract the attention of Engineman Somerville, all of which was unheeded. While Engineman Somerville claims to have had the cab window open and keeping a proper lookout, it is probable that the windows were closed

and he was not keeping a sharp lookout when he passed Flagman Nevers.

By time card rule passenger trains are permitted to run at a speed of 40 miles an hour, but there does not appear to be any definite rule fixing the speed of snow plows running in advance of passenger trains except a common understanding that the snow plow will make the schedule speed of the following passenger train if possible.

As previously stated, there was no block signal system in effect on this division. The scheduled speed of train No. 9 between Presque Isle and Caribou was 30 miles an hour, and that train left Presque Isle on the day of the accident at 10.27 p.m., and consumed 29 minutes in running to point of accident, or an average speed of 27 miles an hour. Extra 142 left Presque Isle at 10.17 p.m. and consumed 39 minutes in reaching point of accident, or an average speed of 20 miles an hour. This accident clearly demonstrates the inherent weakness of the time interval system of spacing trains and calls attention to the urgent necessity of some form of block signals. In this instance three trains, under the most severe weather conditions, were permitted to occupy 15 miles of main line track without any open telegraph office between. Unless an adequate block system is put into operation, in order to provide proper safety, such rules and regulations governing the operation of snow plows ahead of passenger trains should be adopted as will clearly set forth the speed at which the trains are to be operated, and provide a safe space between those trains.

All of the employees involved in this accident were experienced men with good records. At the time of the accident the crew of extra 142 had been on duty about 9 hours, the crew of train No. 9 about 4 hours, and the crew of extra 59 about 8 hours.