

KEEPING THE NEW YORK CENTRAL
RUNNING IN NEW YORK'S SNOW BELT

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PULASKI, NEW YORK, U.S.A.

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The title assigned to me today may be somewhat misleading as snow very often has seriously interfered with our operation.

From 1937 until my retirement in 1952, I was Supervisor of Track on the St. Lawrence Division of the New York Central Railroad with headquarters at Richland, New York. My territory extended from Watertown on the north to Syracuse on the south, from Richland to Rome on the east, and from Pulaski to Oswego and Fulton on the west, comprising in all about 160 miles of main track. I have here a National Geographic Map and a U.S.G.S. map which shows very well how this stretch of railroad is located with respect to the Lake and foothills to the east. An article appeared in *Weatherwise* in 1950 which indicates what may be expected in the above location. Here are some excerpts from that article:

1. "More snow falls in the zone between Syracuse to Watertown eastward to the Adirondacks than in any other area east of the Rockies. The average winter accumulation is well over 150 inches on the highlands back from the lake."

2. "Snows in this area (foot of Lake Ontario) are influenced to a large extent by the lake itself inasmuch as there is seldom much of an ice cover. This in contrast to Lake Erie where the lake freezes over and where storms occur in Buffalo area during the first part of winter when Lake Erie is open and then grow less as the winter advances and ice bridge forms on the lake."

3. "A large difference in temperature between the air and water on Lake Ontario building up the thickness of unstable air and causing a rapid flux of moisture from lake surface to polar air above causing precipitation in form of snow to be dumped on lee shore of lake."

The facts set forth in *Weatherwise* were borne out while I was at Richland.

My job was to maintain the track and to keep it clear of snow and ice so that there would be no interruption to traffic. To accomplish the latter I was authorized to put on additional forces as necessary and to use all snow fighting equipment available. Inasmuch as a delay to trains on account of weather conditions is put directly up to the Maintenance of Way Department of which the Supervisor of Track considers himself a cog, he is greatly concerned in these matters.

Over the years, I could write a book about my experiences fighting snow, day and night, during especially bad storms. A Supervisor of Track on a busy single track railroad does not know the meaning of the word "overtime". The responsibility is his twenty-four hours of the day, seven days a week, Sundays and holidays included. Not only must the tracks be kept clear, but the switches must be in condition to be thrown, and highway crossings cleared. Typically, my telephone would ring at two-thirty a.m., with the Chief Dispatcher on the line, "W.D.2 unable to get into clear for D.W.1 at Parish because the train crew could not throw the switch". In another typical case, I would call the Chief at 7 a.m. and advise him that he should get a plow moving out of Watertown for Syracuse

by noon as conditions around Richland were bad and getting worse. We had wonderful *esprit de corps* and the men and myself felt a tie-up as keenly as the powers higher up. It is a tough job for all concerned and takes great endurance to cope with it.

While my headquarters were at Richland, which is indicated on highway signs as "Populated Area" and is a railway junction, I had my home in Pulaski four miles nearer Lake Ontario. The elevation of Pulaski above sea level is 360 feet and it is 3 miles from the lee shore of the lake. The land rises to the east toward the foothills of the Adirondack Mountains. The railroad bends sharply to the east at Pulaski and rises on an approximate 0.8% grade to Richland for a distance of 4 miles. This is the ruling grade from Syracuse to Watertown and a train of 3,500 tons with 100 cars and one locomotive could not make the 4 miles without "doubling"; that is, without cutting the train after it is stalled, taking the head end into Richland and then going back for the rest of the train. The above operation is necessary on what in railroad parlance is known as a "summer rail". In winter, of course, conditions were worse. This procedure is expensive, as any delay in operation is expensive. Since the Diesels have come into use, the long grade from Pulaski to Richland is made with a minimum of effort and expense. Three and four-unit Diesels take the long trains up the hill with no difficulty.

Richland and snow, in railroad terms, are synonymous. It has been a tough place for operating-men over the years. This applies also to the line from Pulaski south to Syracuse which is a series of sags and summits, a rolling country where the line cuts the contours at right angles. On account of these physical conditions, the long trains run into these sags, cars run together and in pulling out of the sag, due to the excessive strain, sometimes pull out a draw bar or break a coupler. The train then has to be brought into the nearest siding in sections. Snow collects in the cuts under the influence of a westerly or southeast wind. The trains sometime stall, providing a plow has not been operated a short time before. It always seemed to the Supervisor that the Chief wanted to move as many cars in the winter as in the summer, in one train. The tendency is, to load the train up to capacity and take a chance, which, in our climate, is often disastrous from an economic viewpoint. As I noted in the beginning, a tie-up on account of snow, is put directly up to the Maintenance of Way Department.

In design, it is economically impossible to take care of extreme conditions. That applies to an occasional winter which may be expected in this territory. Over the years many measures have been taken to counter the effects of drifting snow, including: (1) cuts have been widened; (2) permanent snow fences, consisting of conifers and even some deciduous trees, have been placed as breaks for the snow; (3) portable snow fences placed each fall back a hundred feet from the cuts, with the consent of owners of adjacent land; (4) earth and banks have been bulldozed away from switches so that snow will not fill the switch or around the stand; (5) earth has been removed from around highway crossings to leave room for the snow so that the crossings proper will not be filled up; (6) ditches have been cleaned out and tracks raised through cuts wherever possible. Very special attention has to be given to the

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flanges in grade crossings. The flange or flange rail is placed on the inside of each running rail throughout the length of the crossing. Its purpose is to receive the flanges of the wheels of the cars and engines which pass over the crossing. If these flangeways are not kept clean, a hard surface is built up even with the top of the running rails. This condition raises the flange of wheels on engines or cars and makes a derailment possible. Salt is put in the flangeway so that the freezing point is lowered. Constant attention and picking out of these flangeways is necessary.

All work on the track in the summer is done with an eye to the winter ahead. Where bad conditions have been noted, an attempt is made to take care of them during the summer months.

Kerosene flares or burners are placed at switches in the early winter. Consisting of a wick and a small reservoir of kerosene, they are kept burning during bad storms so that heat will be provided on the slide plates of the switch points. On the equipment side, we have Jordan spreaders, rotary snow plows, Russell wing plows, flangers, etc., all of which are carefully checked over during the summer months so that they will be in shape and ready for operation come winter.

But in spite of all these things, when old Mother Nature decides to go on a rampage, or as our boys used to say, "when the man above takes charge," we just do the best we can. I am thinking now of the storm of late February and early March, 1947. I have copies of my weather summary for that period. Starting with February 22nd, we had very strong west winds with much drifting. From the 22nd through the 28th inclusive, there were 38 inches of new snow and about 37 inches on the ground as of February 28th. There was no frost in the ground as our temperatures had been on the high side during the first part of February. In looking up my memorandum for this period I note that I remained in Richland all day, that is on February 28th. We had 10 inches of new snow that day with a strong west wind. On Saturday, March 1st, it showed signs of clearing. We had been loaned a new spreader from the main line at De Witt and we started using it around Richland, where we had 3 feet of snow on the level.

On Sunday, March 2nd, our troubles were much worse. I had gone from my home in Pulaski to Richland on a freight engine. The wind on that morning began in the southeast, bringing with it heavy, wet snow, then shifted to the west. We got 12 inches of new snow that day. The storm increased in intensity during the night and continued without abatement into the morning of March 6th, with a total fall of new snow of 60 inches which, added to the 12 inches of March 2nd, gave us 72 inches or 6 feet of new

snow. This total, combined with what we got in February, made 108 inches on the ground. With the vertical fall of snow and the west wind which blew continuously during this period and filled the cuts, we were tied up completely. Mr. Elmer Lovridge, in charge of the weather station in Oswego, told me that the storm of 1947 was the worst in the history of the weather bureau, because of the duration and the high winds.

During this storm we had a passenger train stalled on the Rome Branch. It remained there during the night of March 3rd. It was finally released by the rotary nosing up to it and with the help of 4 engines. The snow at the top of this cut was at the same height as the car windows. All trains were cancelled for 2 days. The rotary plow was operated over the main tracks wherever possible. This consists of a large wheel weighing about 12,000 pounds which noses up to the snow and in turning bores into the bank and throws the snow clear of the right of way. When the snow gets so high in the cuts that the wing plows are no longer effective, the rotary is used to great advantage. Our total fall of new snow during March, 1947, was 97 inches. After the storm of March 2 to 5, I measured the snow at the best location I could, but where there was drifting, it was 130 inches, which gives some idea of what it was in the cuts.

We had other bad winters while I was in Richland, in which there was a heavy fall of snow.

When the spring comes there is nothing to show for your effort to keep the track and roadway clear during the preceding winter. The railroad has spent a great deal of money and a maximum of effort has been exerted. However, that is one of the inescapable things that must be faced in railroad operation. There is great satisfaction in having had a part in transporting people and material during severe climatic conditions.

In conclusion, I know I shall be pardoned if I put in a plug for our American Railroads. In my time, I have seen them rise to the top in technical attainment in their own particular sphere; superb organization; safety record second to none as compared with other forms of transportation; all under private ownership. But in these later years, they have been plagued by government subsidation of the other forms of transportation which has increased their tax burden and siphoned away their earnings needed for capital improvements.

Previous to my coming to Richland, I had been Supervisor of Track on the Pennsylvania Division of the N.Y.C.R.R. with headquarters at Clearfield, Penn., which is on the west branch of the Susquehanna River. The problem there is not snow but water.