COVER:
This photo tells it all. Taken just outside of Regina, Saskatchewan in 1948, thousands of pounds of tractive effort bite the rails while both the snowplow and locomotive remain hidden behind flying snow, steam and smoke. Note the shovels resting on the telegraph crossbar. Photo courtesy Canadian Pacific #P2626-3 from the collection of the author.

OPPOSITE:
The scene suits its name very well as two powerful steamers drive a CP standard wedge plow into the drifts at Outlook, Saskatchewan in February, 1947. Photo courtesy of Canadian Pacific, from the collection of the author.
Encounter part 1
by George Moore

A brief glimpse into Canadian Pacific's continuing battle with the elements.

Outlook Saskatchewan, January 1947. Photo courtesy of Canadian Pacific c/o Mr. M. Patoroka, Winnipeg.
Do you suppose the unique Canadian winter and all this season entails was treated with more than casual lip service as the dreams of our first transcontinental railway builders turned to reality? Or do you sometimes wonder as I do, in the midst of one of our famous winter storms, whether that august body of gentlemen known as "The Syndicate", ever gave the Canadian winter more than a passing thought? Perhaps it is not unreasonable to assume that had any of these brave men been blessed with the ability to look into the future and see what was in store while sensible plants and animals hibernated in this country, perhaps we would still be dreaming of a transcontinental railway.

Despite the vertical plancked wooden snowfence visible at right the line is not only thoroughly plugged, but Plow 400762 is firmly stuck as well. The locale was the Outlook Branch northwest of Moose Jaw, Saskatchewan in February 1947. Photo courtesy CP Rail, Winnipeg.
It's true of course, that railways in Eastern Canada had been coping with the problems of winter for sometime prior to the advent of the transcontinental, however as the rigors of prairie and mountain railroading were soon to demonstrate, the railwayman had much to learn about his special place in the Canadian winter environment.

We all know what snow is and are equally aware of the various forms that "innocuous" white element can assume, depending on the whims of temperature and wind. Canadian Pacific's "battle" with the white stuff has continued without abatement since the halcyon days of the opulent Atlantic and Pacific Express, The Loop, Glacier House and Sir William Van Horne, through to these hypertensive days of megolithic corporate structure. Some of the more infamous of these encounters are examined in brief form as follows. We also take a look at the various structures and equipment devised over the years to put Canadian Pacific on a "firm" footing with the winter challenge.

Some winters will live forever in the minds of the men who prevailed and much to their credit, had the foresight to record their experiences for posterity. Such a winter was the one of 1882-83 which provided the fledgling Canadian Pacific, still very much under construction, with its first real test. Temperatures plunged to 50 degrees below zero Fahrenheit on the prairies and equipment, including locomotives built essentially to southern hemispheric standards, froze fast to the rails. European immigrants, many from Southern Italy, experiencing their first winter while working on railway construction gangs, were seen carrying large red umbrellas to ward off the bitter winter.
Meanwhile back East the winter of '49 was playing havoc as well. In Smiths Falls, Ontario 1500 urgently required boxcars had to be freed by any means possible. This included both rail and non-rail equipment as well as sheer manual labour. Snow was loaded onto anything that would move then hauled away and dumped. Both photos courtesy CP Rail, Winnipeg.
winds. The majority were ill-equipped to say the least when it came to proper cold weather clothing and footwear. All this combined with heavy snowfalls to set the stage for a long and very expensive match between Canadian Pacific and good old "Mother Nature".

The problems inherent in severe snowfall were manifest in the Rocky Mountains with Roger's Pass bearing the brunt of the action. Snowfall in the famous Pass is legendary, with snow depths in the mid-1880's measured at from 35 to 40 feet over the rails. As a consequence, avalanches wiped out great sections of early trackage and the line was simply abandoned to the elements for the duration of the winter. The line obviously required some form of protection and a study conducted during the winter of 1885-86 saw to the design of several types of timber snowsheds for erection at selected locations over mainline trackage. The project was an enormous undertaking for the struggling, budget-weary transcontinental, however at a cost in excess of one million dollars, some thirty-one separate snowsheds, some measuring up to 2000 feet in length, were constructed during 1886-87. Winter operations through the Pass became a reality, albeit occasionally interrupted to this day by the inevitable snow slides at unprotected locations.

Other methods of protection were also introduced including board snow fences along exposed and troublesome areas of prairie trackage. As any seasoned prairie plow operator will tell you, there is no harder snow on earth than that two feet or so of prairie drift which "cements" itself along miles of exposed track; snow whipped rock hard by cruel, relentless northwest winds. Modern methods of protection also include propane heated switch points which eliminate many hours of tedious exposed labour for trackmen.

The "real" battle is fought each year by the men and machines to whom the task falls to keep all lines open and trains running as close to schedule as the Dispatcher desires. As the accompanying illustrations show, the machinery adopted over the years has assumed many forms, one obvious exception however, being the ubiquitous wedge snowplow. Familiar to all, this simple tool of the railroader is still performing yeoman service for Canadian Pacific. Many of these plows have seen in excess of fifty years continuous service and are still going strong after, in many cases, having seen no more modification than a new headlight or coat of red visibility paint on their plow blades. They have obviously withstood the test of time and are a definite credit to the mechanical staffs who designed and built them in Canadian Pacific shops. Their near cousins have included the flangers, spreaders, rotary plows, snowmelters and present-day track cleaners.

While the winter of 1882-83 succeeded in getting things off to a grand start, today's oldtimers choose to recall the infamous wartime winter of 1942-43 which was recorded by the Company as being the most vicious winter since transcontinental operations had commenced; the ultimate test of man's courage and determination against the elements.
To complicate matters, wartime traffic had reached massive proportions and never had there been such pressure on the Company to maintain a viable rail operation. I suppose that if the same set of circumstances were to exist today, we would find a way of accusing our enemies of tampering with the weather as an offensive effort. The 1942-43 winter struck hardest at Eastern Canada but was by no means confined to that half of the country. Stories came in from everywhere on the system ranging from tales of sectionmen working with pick, axe and shovel, their clothing covered with a rime of ice caused by sleet storms in the East, or of Western trainmen floundering for miles through waist deep snow to report stalled freight trains. As everyone knows, other forms of transportation bow out of the picture long before railways when the elements are concerned, and the crucial wartime winter of 1942-43 demanded nothing less than full operation. The cost of full operation in human effort was incalculable. Coal froze solid in the chutes; water froze solid in tower spouts and pipes; locomotives arrived at their destinations enclosed in a complete "envelope" of ice; "blue ice", a phenomenon caused by heavy snow followed by sleet then more heavy snow, literally immobilized switch points at hundreds of locations in the East; and as they often are today, plow operators and enginemen were forced to lean out open cab windows to compensate for poor visibility caused by freezing temperatures and blowing snow. It was not uncommon to see four locomotives pushing a single plow through mountainous snowdrifts. It was reported that in January 1943, a total of 83,000 miles of

As if the winter of 1947 wasn't enough, look at what the winds of '50 dumped on Southern Alberta. In the first photo the line had been cleared but yet two powerful steamers became bogged down and within minutes the line behind them drifted in stranding the duo.
Stuck again, Mike 5110 spins her drivers and goes nowhere, so out with the shovels boys. CP Rail, Winnipeg photo.

Track was cleared of snow by CPR snowplows, 60,723 miles of which was located east of the Lakehead, 7,821 miles on the prairies and 14,456 in the mountains. The total cost of snow removal for the system was unprecedented.

One of the more interesting tales to emerge from this terrible winter was the story of Train 753, a passenger bound from Orangeville to Teeswater, Ontario on the Bruce Division; miraculously one of the very few trains actually marooned by record snowfalls. Marc McNeill, the Company's Press Relations Officer at Ottawa during this time, wrote in "Men Against the Storm" an article published in CANADIAN PACIFIC FACTS AND FIGURES (Montreal 1946), that train 753 was...

"brought to a standstill only two miles from its destination...nowhere were the public's understanding and tolerance more evident then in the case of the snowbound Train 753. The passengers took their unscheduled 17 hour 'stopover' in good spirits and rather enjoyed the novelty of the situation.

Word of the train's plight was despatched by the conductor who braved the blinding snows and waist deep drifts to reach a farmhouse to summon aid from Teeswater. It came by way of toboggan and snowshoe the next day.

In the meantime, Donald Cox, son of the Company's Agent at Teeswater brought a toboggan load of wood to keep the coach fires burning. Food was procured from nearby farm-
Her mainline days over for good CP SERVICE # 2 sits her days out in hope of yet one more chance to challenge old man winter, if only on the La Salle Loop line and in Cote St.Paul yard of the Montreal Terminal. This wooden single track plow and others like it were the backbone of CP's snowfighting equipment in the early days. Photo from the CRHA Archives, S.S. Worthen Collection, date unknown.

Normally assigned to the mountains this huge rotary was brought in to help in the massive cleanup operation. The rotary extra is waiting for instructions at Pincher, Alberta in February of 1950.
houses. With the arrival of the 'Relief Expedition', the passengers off the stranded train were transported to Teeswater by toboggan. One lady expressed herself as 'tickled pink' over the novel CPR toboggan service which brought her home."

The storm which saw to the stranding of Train 753 in January 1943 produced a demand for twenty additional locomotives just to power snowplows over the clogged Bruce Division. During cleanup operations, it was a common occurrence for 70 ton spreaders to be lifted from the rails by snow resistance and many plows derailed. As can be imagined, when a storm of this magnitude strikes, equipment of all types and sizes is conscripted for snow removal and may include boxcars, flats, gondolas and a host of non-rail equipment as well. Never in the previous thirty-years of operation on the Bruce Division had there been so many snowplows in use at the same time.

Natives of Southern Ontario will know that the Bruce Peninsula is notorious for excessive average snowfalls, so that the winter of 1942-43 must have truly been a season to reckon with. This record would tumble within four years.

Once again the superlatives flowed free as the "worst winter storm in living memory" raged for three solid weeks ending in a grand three day finale from February 8th to 10th, 1947. When it had ended, Canadian Pacific lines in Manitoba and Saskatchewan had all but ceased to exist under mountainous snowdrifts. Sixty mile per hour winds and 50 degrees below zero temperatures (F) entombed the Company's tracks. Twenty foot snowdrifts over bald, flat prairie were not uncommon. As
the storm raged, men battled to erect temporary snow fences to stop the mounting drifts, but the tide could not be stemmed and for the first time in the history of Canadian Pacific, trains ceased to operate over prairie mainline trackage. Canadian Pacific Airlines was assigned to pick up stranded rail passengers from trains frozen in the drifts, using ski-equipped aircraft. Over 2000 miles of track in Saskatchewan and 1000 in Manitoba would have to be freed of snow and to complicate matters, urgently needed locomotives were themselves stalled and stranded all over the prairies awaiting rescue efforts. A local fuel shortage loomed, adding to the chagrin of Company officials but despite the numerous handicaps, all available plows, bulldozers, steamshovels, flangers and spreaders were pressed into service, clearing all clogged main and branch lines within the unbelievable space of one week. A contingency plan to shift the huge mountain rotary plows to aid in the massive task did not have to be implemented.

Eastern Canada was to bear its share of grief during the memorable winter of 1947. A thirty inch snowfall struck the Eastern Ontario community of Smiths Falls where 1500 urgently needed boxcars had to literally be dug out by hand. One hundred and thirty men worked around the clock to free this important...
An as-built view of CP Rotary 300811 courtesy of Mr. J.S. Fisher of Winnipeg, Manitoba. These units were not self propelled but had a formidable boiler to drive the rotary apparatus. While the actual date of the photo is unclear it is sometime in the 1930's.
Built also in 1926, CP 400794 is an example of a double track plow.

The interior view looking forward of CP snowplow 400675 shows the operators seat on the right along with the air controls to operate the flanger and wing(s). Note the signal bells on the ceiling, the unit is heated by the traditional coal fired stove at the rear of the car.
In the 1920's the CP virtually standardized on two types of steel plows, one for single and the other for double track situations. Obviously the single track plow is 'V' shaped and throws the snow in both directions while the double tracked version cuts through and throws the snow only to the right. In the first photo we see CP 400845 under construction at CP's Angus Shops in Montreal on October 1926.
railway yard as solid testimony to the fact that pick and shovel plus man's "back" will always prevail. The snow had to be man-handled from around and under each of the 1500 cars, then loaded on anything from horse-drawn sleighs to flatcars for removal from the yard. In addition, eleven plows averaged more than 2500 miles per day for three days clearing seven foot snowdrifts from a total of 646 miles of track on the Smiths Falls Division.

Do these tales of winter's wrath impress you as being the type only grandfathers recount to their offspring, a generation or two removed, when boasting proudly of their days on the "hi-iron"? Have you ever heard those same proud gentlemen proclaim "we just don't have storms like that anymore"? Well, before we leave the subject once and for all, perhaps you would like to share in the experience of 'First 965 Snowplow' at mileage 37.0 Maple Creek Subdivision, two miles west of Gull Lake, Saskatchewan in February 1978. We will present part II of this saga next month.

The same unit shown later in service following some noticeable modifications and a re-numbering suitably lettered 'SNOW SERVICE'.

The same unit shown later in service following some noticeable modifications and a re-numbering suitably lettered 'SNOW SERVICE'.
Still later the same rotary has been converted to operate in the Diesel era. Gone is the boiler and chuffing pistons, all to be replaced by two traction motors which await connection into the newly provided electrical panel.

In November 1950 CP built this snowmelter #422027 which was used for snowclearing operations in terminals and other congested areas where disposal was a problem. The snow entered the front of the unit only to emerge as water which was poured from the discharge as the unit crept along. All preceding equipment photos courtesy CP Rail.
Another important unit in CP’s winter roster is the 'Jordan Spreader'. These dual service units (ballast in summer, snow in winter) are used to clear industrial spurs and yards now that the snowmelter has gone the way of the steamer which operated it. Burt Van Rees caught this A unit and Spreader near Woodstock, Ontario in February 1978.
As recently published in the CRHA Communications, the Canadian Railroad Historical Association and in particular our Canadian Railway Museum has been designated as a Specialized Museum under the Museum Assistance Programmes of the National Museums of Canada. Parallel with this announcement the CRHA collection of railway rolling stock, the bulk of which is located in St. Constant P.Q., becomes the 'national railway collection'. Additional CRHA pieces are located in Toronto, Ottawa, and Edmonton, Alberta and these also become part of the national inventory. A complete roster of CRHA equipment was published in the January 1978 issue of CANADIAN RAIL and this will be repeated as up-dated from time to time.

How did it all start? Who were the foresighted individuals who years ago made the first efforts to preserve that which is today appreciated more than ever before? We are pleased to present the first in a continuing series entitled 'FROM OUR COLLECTION', providing some of the answers to these questions and also keeping you abreast of new additions to our ever growing roster.

It all started very innocently in the late 1940's when the Montreal Tramways Company were in the process of scrapping the last remaining single truck work cars which years earlier had been the backbone of passenger service on the Montreal Street Railway. Until then the CRHA had been content to preserve small archival material and exhibits, but now thoughts turned to the possible acquisition of a streetcar. You can imagine the deliberations of the Board of Directors as they pondered the possibility of requesting such a donation from the MTC, after all if our request was indeed accepted, where would we put the car?

Spearheaded by Anthony Clegg and with the example of the newly established Seashore Trolley Museum to point to, it was decided to proceed and request the donation of brine car 274 from the MTC. Car 274 had been built in 1894 by the Newburyport Car Manufacturing Co. and withdrawn from passenger service in 1912, at that time it was fortunately converted to a brine car. Part of an original purchase order for 10 cars, car 274 was the sole survivor of its class in 1951 when the request for its donation was made.

Fortunately the CRHA was not without friends 'on the inside' of the Montreal Tramways organization in the person of Mr. Richard M. Binns, an officer of the company and Mr. André St. Pierre the then Public Relations Director for the MTC. These men were not only sympathetic but instrumental in convincing the MTC to donate the car to the CRHA on April 28, 1951.
This is how Car 274 looked on the day it was acquired by the CRHA, April 28, 1951. Brine bins inside, a drab grey paint scheme outside typical of the Montreal Tramways work cars. Photos courtesy A.Clegg.
Restoration proceeds on car 274 on July 28, 1951. The brine bins have been ripped out and the car has been re-painted yellow. That's Tony Clegg on the ladder, Allen Toohey under the car and Omer Lavallee working on the lettering. Photo courtesy of A. Clegg.

This is the car outside St. Denis Barns on May 17, 1952. Omer Lavallee is holding the switch iron, Tony Clegg, Ken Chivers in his T shirt and Ernest Modler in shirt and tie. We could not identify the individual on the car steps. Photo courtesy F.F. Angus.
The conditions were simple, the car would be donated to the CRHA and any restoration would be performed by CRHA volunteers at the CRHA's expense. The car would be housed by the MTC indoors but was subject to re-location as space became available. And so it was the CRHA had it's first piece of rolling stock and the volunteers set to work: Tony Clegg, Omer Lavallee, Ken Chivers, Ernest Modler, Sandy Worthen, Allen Toohey and others literally 'dug in' removing years of paint, brine and dirt from 274.

Work progressed at a steady pace as time and funds permitted, and true to their word the locale did vary, first St. Denis, then Youville Shops, Cote St. Paul Barns, back to Youville, etc. Car 274 was the first Montreal Car to be restored* and was a living example of the necessity to establish an acquisition policy while such fine examples of street railway technology were still in existence. It wasn't fashionable to be preserving streetcars back in 1951, but the acquisition of car 274 created an awareness that was to pay off handsomely years later.

Car 274 was moved to the Canadian Railway Museum in 1963 along with the rest of the MTC collection that was subsequently acquired. Since then the car has been constantly kept indoors and is today a credit to the fine restoration bestowed on it back in the 1950's by the CRHA's first restoration crew.

The car has been re-painted again and is here pictured at the back of Youville Shops on October 3, 1953. Photo courtesy A. Clegg.
The CRHA and indeed all Canadians can be proud of our formidable collection whose very existence stems from the pioneering steps taken by the CRHA Directors and members back in 1951.

* Car 350 'THE ROCKET' had been preserved by the MTC but only restored in later years.

* Sincere thanks to Anthony Clegg, Fred Angus and S.S.Worthen for photos and/or information relating to the above acquisition.

Restoration complete car 274 is seen operating in excursion service on Notre Dame St. on June 23, 1957. These were the days when streetcar excursions cost $5.00 per hour and mainline oil electric's could be had for $3.00 per mile. Photo courtesy A.Clegg.
The business car

CANADIAN NATIONAL WILL COOPERATE WITH THE TOWN OF PRESCOTT, ONT., to preserve its historic 123-year old station. In the early days, it was an important junction point in Eastern Ontario between the Grand Trunk and the Bytown and Prescott Railways.

CN are also upgrading service in Newfoundland. Three of the 22 Roadcruisers have been replaced with new equipment. (Keeping Track)

THE DELAWARE AND HUDSON IS GREATLY PLEASED BY PASSAGE OF AN AMENDMENT in the House of Representatives will have the effect of making available continued funding to the D&H. Corresponding action in the Senate is still required, however the D&H is most optimistic that this action will be forthcoming. President Shoemaker said all D&H operations are continuing on a normal basis and will continue to do so. (D&H News Release)

THE CONNECTICUT ELECTRIC RY. REPORTS THAT WORK HAS BEGUN ON THE restoration of Montreal Car No. 2600. Interior work is progressing on the ceiling and woodwork; when this is completed the outside will be repainted. The car will then be placed in the shop for necessary repairs to air-brake and electrical systems.

CP RAIL IS BUSY IN BRITISH COLUMBIA WITH IMPROVEMENT PROGRAMS, including repair and replacement of bridges at Ruskin and Mission, replacement of 209,000 ties and 61 miles of rail at various locations. At the same time, Coquitlam Yard is being expanded to increase handling capacity. One of the prime targets of the Company is to reduce grades in the region, notably from Revelstoke to Clanwilliam (4.5 miles) from 1.8% to 1.0%. Preliminary studies are underway for the construction of an 8 mile tunnel under the existing Connaught Tunnel. (CP RAIL NEWS)
"THE OLD LADY OF GRANVILLE STREET GETS A FACELIFT" - WHILE THE FUTURE of the CP Rail station in Vancouver as a terminal for Transcontinental trains is in doubt, CP Rail and Marathon Realty are giving it a complete overhaul. For the first step, the grand concourse (18 x 60 metres) has had its terrazzo floors reground, a new staircase from the adjoining Granville Square has been installed, and new chandeliers reminiscent of earlier days put in place. Small retail shops and a restaurant will eventually skirt the rim of the concourse. Later on, it is expected that the station will become the terminal for the rail commuter service being planned by the provincial government, in addition to present duties as an interchange for the Burrard ferry and bus systems. (The Vancouver Sun)

TTC SELLS PCCS TO CLEVELAND. AS A RESULT OF A DESPERATE APPEAL BY the Greater Cleveland Regional Transit Authority, the Toronto Transit Commission on April 21st approved the sale of 9 surplus PCC cars to that American property. The RTA had been hard pressed to find equipment to meet the increase in ridership on the Shaker Division since the absorption of the Shaker Rapid into the RTA and the introduction of uniform (lower) fares. If the TTC had refused to sell the cars, the RTA would have submitted tenders on surplus Boston PCCs; the MBTA required the bids four days after the TTC decision.

The nine PCCs are numbered as follows: 4630, 4648, 4651, 4652, 4655, 4656, 4662, 4663, and 4665. Alternate cars (in case of collision damage to original selection) are 4626, 4639, 4642, 4659, and 4660. All cars are from the TTC class A-II and were Pullman-built. Ironically, TTC had acquired the cars from the Cleveland Transit System in 1952 where they had been in operation for only 6 years. Purchase price at that time was $17,500 per car but the 1978 sale of the same vehicles brought a $20,000 unit price. On top of the purchase price, the RTA will pay the TTC for regauging and loading the cars, an additional estimated cost of $6,500. The 1952 purchase of ex-CTS PCCs actually totalled 75 cars: 50 Pullman cars (TTC class A-II) and 25 St. Louis cars (TTC class A-12, the "Louisvilles"). On arrival in Toronto they were equipped for m.u. operation and spent most of their lives on the BLOOR and QUEEN routes. Except for the conversion of two A-II cars to a surface rail grinding train, the sale of these nine A-II cars to Cleveland, and the retirement of 2 A-II cars, all other cars in the 1952 purchase remain in service. When sufficient numbers of new LRVs enter service next year, the ex-Cleveland Pullman cars will be the first to be retired.

THINGS ARE NOT TOO BRIGHT IN THE PACIFIC NORTHWEST EITHER. THE Puget Sound Railway Historical Assn., Inc., have been somewhat jolted by Puget Power, on whose property the PSRHA is located at Snoqualmie, Wash. Puget Power would like it to relocate its terminal and display yard elsewhere and, apparently, the sooner the better. However, there may be light ahead as they are negotiating with the Burlington-Northern for space in the nearby town of North Bend. This would involve a long-term debt of the order of $120,000,000, much of which would be "grantable" by various state and federal programs. (The Sounder)
GO TRANSIT REPORTS THAT MORE PEOPLE THAN EVER ARE GOING BY GO TRANSIT to the Canadian National Exhibition in Toronto. Their new 162-seat bi-level cars (94 seats in a conventional coach) greatly assisted in handling the increased traffic. One day alone accounted for 50,000 at Exhibition station, compared with normal weekday carrying of 31,500 for the entire Lakeshore line. GO is employing a crew of handicapped adults to maintain the 40 passenger shelters on the North Yonge bus corridor. It is reported that their work is exemplary. It is reported that the shelters are kept so clean that on one occasion a caller telephoned GO to say that one of the structures had all its windows knocked out. Upon checking, GO staff found that the windows were so clean they had to touch the glass to make sure it was there,... Would commuters on any other line care to comment?

SOUTHERN PACIFIC SEEMS TO BE GETTING IT FROM ALL SIDES THESE DAYS.
By mid-July, only 1780 carloads went by rail this season out of the Selmas Valley as against 21,550 loads by truck. An Espee spokesman stated that if the trend continues that refrigerators will not be available for crops in future years and that the growers will have to look for trucks.....Isn't it evident that they have already done just that?

IN JULY, THE I.C.C. ORDERED SOUTHERN PACIFIC TO PAY $4.4 MILLION IN penalties for failure to move freight cars under ICC car orders. Some 15,717 violations were identified in June wherein cars were held more than 24 hours. Late action may reduce the penalties, but SouPac has leased 15 Amtrak locomotives to free engines in the Commuter runs out of San Francisco for freight service. They are GE P-30 type 3000 hp. diesels currently surplus pending receipt of new Superliner equipment scheduled for delivery to Amtrak in November for western and transcontinental trains. (Western Railroader)

IN A LETTER WRITTEN IN MID-AUGUST 1978, MR. J.M. LECLERCQ, THE Association's representative for Europe, said that heavy rains in Switzerland had resulted in severe flooding in the Interlaken - Lake of Thun area and in the Ticino, Switzerland's canton on the south side of the main chain of the Alps.

More than twenty people have been killed by natural disasters or drowning in Switzerland and northern Italy.

The famous metre-gauge electric railway between Domodossola (Italy) and Locarno (Switzerland), the "Train des Centovalli" - officially La Societe Subalpina di Imprese Ferroviarie (SSIF) (Italy) and La Ferrovie Autolinee Regionali Ticinesi (FART) (Switzerland) - has been cut in several places and through service over the 132 km line will not be resumed for at least two years.

(S.S. Worthen)