872150140 MON AUG.03,1987 PAGE: A3 (ILLUS)
BYLINE: HEATHER MALLICK
CLASS:*News* SOURCE: CP
DATELINE: WORDS: 767

***TORNADO*AFTERMATH **

** New twisters as hard to track as bubbles in boiling water **

BY HEATHER MALLICK
The Globe and Mail
with Canadian Press

Predicting a tornado is like watching a pot of water on a stove - it will boil but no one knows where the bubbles will appear.

That is how meteorologists describe the almost impossible task of tracking violently spinning thunderstorms such as the ones that hit Edmonton on Friday.

With radar, meteorologists can easily identify the conditions that might spawn tornados and send out a "weather watch" to warn people that a severe storm is about to strike.

But spotting the lethal combination of temperatures and winds that will actually produce a tornado is much more difficult.

Alberta Weather Office policy is that a funnel cloud is not considered a tornado until it touches down and causes damage. No tornado warnings are issued until that happens.

In Edmonton, Mayor Laurence Decore has charged that the warning was too slow. He said the first tornado bulletin was issued at 3:07 p.m., only minutes before tornados ripped through the city.

A severe-weather watch had been issued at 1:40 p.m..

But meteorologist David Burnett defended the procedure which was followed on Friday. "The mayor is incorrect if he thinks we knew it was going to happen but didn't tell anyone because of a silly procedure preventing us from (issuing) a warning.

"The case is we don't know there's going to be a tornado until it is spotted."

A tornado was spotted in the town of Leduc south of Edmonton 12 minutes before the warning was sent out.

A 15-minute warning is considered the best that can be expected with existing technology and Edmonton did well, meteorologists say.

"Edmonton did better than we did on the Barrie tornado," said Michael Leduc, a severe-weather meteorologist at Environment Canada. "We didn't know the Barrie one was on the ground until it had already happened."

The 1985 Barrie, Ont., tornado, which killed 12 people, was preceded by the same kind of weather that prevailed around Edmonton in the hours before the storm.

The conditions that produce a tornado are hot, humid air at low levels and a mass of cool, drier air above.

A cold front pushes underneath the warm air, creating a bubble. If wind patterns are just right, with strong winds at low levels and an upper-level jet of wind, thunderstorms start up, begin to spin violently and develop into twisters with winds of up to 400 kilometres an our.

Tornados are rare in western Canada, where it becomes hot but rarely very humid, Mr. Leduc said. This tornado was the worst the West has seen since 1912, when 36 people were killed in Regina.

But last week, the weather in the northern United States was hot and

humid with temperatures going above 36 degrees and some of this weather reached Alberta and Saskatchewan.

Then a cold front arrived, bringing with it the seeds of a tornado.

Ontario is hit by an average of 25 tornados a year, mostly in the southwest. Last year, there were only nine. In the past nine years, twisters have killed 22 people in Ontario and caused half a billion dollars in damage.

Quebec gets 15 to 20 tornados a year. New Brunswick gets about five. Elsewhere in the Atlantic provinces, tornados are rare becuse of the cooling effect of the ocean.

Environment Canada has seven forecasting centres across Canada and thousands of volunteer weather watchers who call weather offices with information, including damage reports that upgrade weather watches to tornado warnings.

Philip Aber, Environment Canada's regional director for Ontario, said a plane will be sent out to film the damage pattern in Edmonton as soon as search-and-rescue teams have completed their work.

In the trailer park where most of the damage occurred, some trailers were flattened while other patches of land were untouched, Mr. Aber said.

This indicates that one tornado repeatedly touched down, although it is possible that several tornados struck on parallel tracks, he said.

The one tornado may have had four different centres or funnels and therefore may have looked like four separate tornados, Mr. Leduc said.

A tornado may only touch down for 30 minutes, he said. In that time, the tornado has to be sighted, the warning put out by wire services and the message read and transmitted by radio and television stations.

Even if people hear the warning, they still have to know that they should go to their basements, he said.

Trailers, which have no foundations, are the worst possible places to be, Mr. Leduc said. "You are so vulnerable, you are almost better outside."

ADDED SEARCH TERMS:
GEOGRAPHIC NAME: Edmonton;*Alberta;*Canada
SUBJECT TERM: *storms;*tornados;*forecasts; meteorology

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851640035 THU JUN.13,1985 PAGE: P7
BYLINE: D. W. Francis
CLASS: Letter to the Editor
DATELINE: Toronto ONT WORDS: 369
::

Barrie
May 18

** Ground rules **
** for disaster aid **
** fair to Ontario **

Your editorial Go Slow Giving (June 11) fails to give any background or rationale for the federal Government's commitment to provide financial assistance when the provincial contribution to*tornado*damage*exceeds $9-million. The Disaster Financial Assistance Arrangements (DFAA) provide financial assistance where the costs of dealing with a disaster exceed what a province can reasonably be expected to bear on its own. This program has been in effect since 1970 and has paid out more than $85-million in disaster aid to the provinces.

Assistance in the form of reimbursing a provincial government for expenditures on disaster relief is provided according to a formula based on population and does not "kick in" until eligible costs exceed $1 per person of provincial population. For a disaster in Ontario, in which eligible costs are between $9-million and $27-million, the federal share is 50 per cent. Between $27-million and $45- million the federal share is 75 per cent and above $45-million the federal Government will pay 90 per cent of eligible expenses.

It will be seen that Ontario's threshold for federal disaster assistance is higher than that of other provinces because of its population, but then, so is the province's ability to look after itself. Conversely, the provinces with smaller populations (and seemingly greater proneness to natural disaster) are faced with a lower ability to pay and thus benefit from a lower threshold. DFAA, although not perfect, has worked well for the purposes for which it was designed. To alter the ground rules in Ontario's favor would hardly be fair to the remainder of the provinces.

I hope this explanation will help to allay the impression that federal assistance in this tragic disaster is "go slow giving". I might point out, too, that individual departments of the federal Government are deeply involved in providing specialist assistance to the victims of this disaster. The extent of these contributions will be announced in due course, but as an example, the Department of National Defence provided an immediate contingent of 700 Canadian Forces personnel, vehicles, equipment, meals and consumables at considerable cost to the taxpayer, but purely on the basis of a verbal request.

D. W. Francis
Regional Director, Ontario
Emergency Planning Canada
Toronto

ADDED SEARCH TERMS: Ontario*storms*tornados*Canada*emergency measures

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::
852350128 FRI AUG.23,1985 PAGE: B2
CLASS: ROB
DATELINE: WORDS: 105
::

Barrie
May
'85

** REPORT ON*CANADA***
***Tornado*plan **

Federal Agriculture Minister John Wise yesterday announced details of a $5-million Conservative Government plan to help farmers who suffered *losses*when*tornados*ripped through central Ontario in May.

''There are two main thrusts to the plan,'' Mr. Wise said in a written statement.

''The first is an interest compensation program to help farmers meet their immediate cash-flow obligations. The second . . . provides capital for re- establishing the farm unit.''

Mr. Wise said the federal program, originally announced June 13, is needed because private insurance payments and other disaster relief funds are insufficient to cover tornado damage to an estimated 200 farms.

ADDED SEARCH TERMS: Ontario*tornados*relief

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ADDED SEARCH TERMS: Alberta electric power*storms*

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860270130 MON JAN.27,1986 PAGE: A1
BYLINE: THOMAS CLARIDGE
CLASS: News WORDS: 636
DATELINE:

::

Barrie, May 85

** 7*deaths*are laid to lack of code **

BY THOMAS CLARIDGE
The Globe and Mail

The*death*toll* of a*tornado*that devastated the Barrie, Ont., area last May 31 would have been cut by more than half if destroyed buildings had been built to current standards, a study of casualties indicates.

The study by federal building standards experts found that in the case of seven victims, houses were ineffectively anchored to their foundations, and floors on which the victims were standing actually became airborne.

The twisters, which hit parts of Dufferin and Simcoe counties, took 12 lives. The seven victims referred to were inside their homes - supposedly the best place to be when a tornado strikes.

The report, circulated last week within the Ontario Ministry of Health, says five of the homes in question did not meet anchorage requirements of the 1985 National Building Code.

Richard Jones, Barrie's director of planning and development, said in an interview yesterday that the houses that were torn off their foundations were in the part of Innisfil Township annexed by Barrie in 1981.

The National Building Code was voluntary at the time they were built in the 1940s and 1950s, and did not apply in Innisfil Township.

"People inside homes, cottages, trailers and portable classrooms which have no basement and may be inadequately anchored need advice as to what to do in case of a tornado," the report says. "Lying outside on the ground may be safer than staying inside."

The study was based on an investigation by D. E. Allen, a National Research Council structural engineer who visited all sites of building damage and collected reports from local building inspectors.

"From this information, he was able to make inferences as to the events which took place in the buildings during the tornados and was able to draw some conclusions," the report to the Health Ministry says, adding that a more detailed study is being carried out by the ministry and Health and Welfare Canada.

The Allen study found that 857 buildings were damaged in the Barrie area, where eight died and 20 suffered serious injuries.

"Fifteen light frame houses which were not effectively anchored were picked off their foundations and deposited downwind, resulting in five deaths and five serious injuries."

The report described the 15 houses as outside both Barrie's city limits "and the application of the (national) building code at the time of their construction."

Mr. Jones said Barrie's building inspection office would not have inspected the homes after 1981 because the Ontario Building Code cannot apply retroactively.

Inside the city limits, about 10 times as many houses were exposed to the same winds, yet "only one became airborne and not a single fatality was associated with them." About 50 houses did suffer serious damage and several occupants were seriously hurt.

The other two deaths inside homes were in Grand Valley and Tottenham. The Grand Valley victim was described as in a recently constructed frame house where "wind pressure completely lifted the main floor off the basement."

At Tottenham, the report said, "inadequate anchorage to the basement foundation led to complete liftoff in six light houses and resulted in one fatality." (Another death there occurred in a shed that collapsed about the victim.)

In contrast, no deaths occurred in older brick buildings. In Grand Valley, three old brick buildings (including the public library) were levelled after the roof lifted off and left the walls unsupported, but all occupants "escaped with a few minor injuries."

The report concluded that old brick buildings "appear to be fairly safe, provided people go to places of refuge, such as a basement or small room."

Similarly, the fact that no deaths occurred among about 40 occupants of a shopping plaza near Orangeville was attributed to "the presence of goods inside the building which prevented the collapsing structure from reaching the floor."

ADDED SEARCH TERMS: *deaths*tornadoes Barrie*Ontario*houses designs building code

TORNADO

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852590137 MON SEP 16,1985 PAGE: P17
BYLINE: MARK BOURRIE
CLASS: News SOURCE: SPCL WORDS: 681
DATELINE: BARRIE, Ont.

** Compensation inadequate, **
** angry*tornado*victims say **

By MARK BOURRIE
Special to The Globe and Mail

BARRIE, Ont. - Strict provincial Government guidelines prevent the Central*Ontario*Disaster Relief Fund from paying more money to angry *tornado*victims who say the*storm*has left them with large personal *losses,*the fund's chairman says.

The day after the May 31 tornados, which cut across Southern Ontario between Grand Valley and Peterborough County, Frank Miller, then premier, said donations to the fund, which now total more than $7-million, may be matched by provincial funds to a maximum of $3 for each dollar raised by the relief committee.

As well, federal funds will match provincial funds after the provincial Government has donated $9-million.

Residents, who are now organizing a protest committee and are retaining

lawyers to challenge the way the funds have been disbursed, say many donors believed all money donated to the fund would automatically be tripled.

They say the tight restrictions on what the fund will pay for have been set by the Ministry of Municipal Affairs and Housing, which has jurisdiction over the fund, to escape paying the Government's share of tornado relief.

''I don't want people to think that we are trying to get more than we deserve, but these guidelines are very unrealistic,'' said Merle Bodenham, a Barrie resident who lost his home, two vehicles and a part-time business when the tornado destroyed his house.

Mr. Bodenham said the relief committee's rules governing the types of damage covered prevent him from recovering lost earnings, part of the value of the vehicles and some of the contents of his house. He said the sideline accounting business he ran from his house was lost when the tornado destroyed his records.

John Morrison, chairman of the disaster relief fund, said the committee will not change its rules that prevent payments for what the committee considers non-essential losses.

''Landscaping, picket fences and driveways are absolutely non-essential. I would rather give a person a TV, but I can't even do that. I believe a TV is an essential.

''We're not hard-hearted. We're doing the best we can with what we have. Washers, dryers, hydro hookup, livestock, powerlines to barns and building permit fees are covered by this fund. They were not covered in the Woodstock tornado in 1979.

''There are lots more we would pay for if we could, but the province does not want to spend a large slug of money.''

Mr. Bodenham said a backlash is developing against tornado victims in Barrie. ''They seem to think we are trying to pad our losses. Callers to a talk show here on Friday said we should be happy with what we got because we should have thought ahead and had better insurance.

"If our house had caught fire, we wouldn't have lost the car and the truck and our tool shed. We might have even been able to get something out of the house.''

The relief fund does not allow claims for uninsured or underinsured cars. It will not pay for boats, landscaping or for house contents over $15,000. The fund pays the difference between the cost of rebuilding and victims' insurance settlements.

Mr. Morrison said the fund has now approved claims for $7.9-million. He said the majority of claims have been processed, but several large bills from damaged factories are expected to be paid soon.

Sylvia Mandel said the destruction on her street included more than just ruined houses. ''Horticultural groups used to tour our streets to see the lawns and trees," she said. "Now, all there is here is mud. What the tornado didn't destroy has been ruined by heavy equipment and trucks.''

Mrs. Mandel's husband, Fred, who teaches high school in Alliston, 50 kilometres away, said the tornado has cost him $15,000 for damages to his car and house that were not covered by the fund's guidelines.

''How can they say my car is not essential. I'm not trying to get ahead. People who donated to the fund thought the money would put us back to where we were. It hasn't worked out that way.''

ADDED SEARCH TERMS: *Ontario*storms*tornados*compensation

slowly moving eastward.
Conditions are expected to improve slightly this afternoon but clouds and showers Friday could mean a cold, wet Labor Day weekend.
ADDED SEARCH TERMS: *Ontario*storms*

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852350128 FRI AUG.23,1985 PAGE: B2
CLASS: ROB
DATELINE:
WORDS: 105

** REPORT ON*CANADA***
***Tornado*plan **

May '85

Federal Agriculture Minister John Wise yesterday announced details of a $5-million Conservative Government plan to help farmers who suffered *losses*when*tornados*ripped through central*Ontario*in May.
''There are two main thrusts to the plan,'' Mr. Wise said in a written statement.
''The first is an interest compensation program to help farmers meet their immediate cash-flow obligations. The second . . . provides capital for re- establishing the farm unit.''
Mr. Wise said the federal program, originally announced June 13, is needed because private insurance payments and other disaster relief funds are insufficient to cover tornado damage to an estimated 200 farms.
ADDED SEARCH TERMS: *Ontario*tornados*relief

TORNADO

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CLASS: News
DATELINE:
WORDS: 568

Barrie Tornado (Orangeville) 1985

Thurs. June. 13, 1985 Thomas Claridge

** Most*tornado-toppled*power lines repaired **

By THOMAS CLARIDGE

Less than two weeks after a*tornado*toppled steel towers on four major *Ontario*Hydro transmission lines, crews have repaired nearly all the *damage.*

Eugene Martin, Hydro's manager of transmission lines, said that by late Tuesday power was flowing on all the affected 500-kilovolt circuits and was partly restored on two 230-kilovolt corridors.

The tornado, which touched down near Arthur on May 31 and caused four deaths in Grand Valley and Tottenham, took out towers on a vital 500-kilovolt line between the Bruce nuclear power development and Milton and a backup 230-kilovolt line between Bruce and Orangeville.

The other steel-tower circuits affected were a 500-kilovolt line that links Northern and Southern Ontario and a 230-kilovolt line between Barrie and Orangeville.

Mr. Martin said yesterday that as soon as the extent of damage was determined it was decided to consider the four jobs as separate projects to be handled by different crews, all working from dawn to dusk, seven days a week.

He said the biggest challenge was on the Bruce-Milton line, where four towers west of Grand Valley were crumpled by winds that moments later devastated the village of 1,300.

There, the reconstruction job was handled by Hydro construction workers, about 30 of whom were on the job the morning after the storm hit.

Mr. Martin said the first phase of the job involved bringing in 30-metre-long western cedar poles for a temporary bypass for one of the line's two circuits.

Although the bypass was the first ever built for a 500-kilovolt circuit, the crews were able to use drawings prepared during a test of the technology three years ago.

The bypass was completed on schedule on June 6 and attention turned to erection of the four new steel towers, each 50 metres high (about the height of a 15-story building) and containing 20 tonnes of steel lattice.

With another 70 construction workers on site for the second phase, work got under way last Friday and by mid-day Sunday all four towers were completed and the stringing of new cables had begun.

Mr. Martin said a full circuit was completed and energized Tuesday night.

''Our next step will be to move the wires off the bypass and onto the towers.'' Work would probably start today and, if the weather co-operates, would be finished by Saturday.

The other three projects were handed to regular transmission-line crews from several regional offices.

Repairing the other break in a 500-kilovolt line, south of Barrie, was a lot easier - partly because its two circuits were on separate towers and partly because one circuit was missing only one tower.

Mr. Martin said that with no need to build a bypass, one circuit was back in service on June 2 and permanent repairs to the other circuit, where five towers had been felled, were completed June 6.

The Hydro spokesman said work on the smaller 230-kilovolt towers normally is easier, but replacement of three towers on the line between their outlets.

In May, the International Joint Commission, which administers the boundary waters treaty between Canada and the United States, began holding back water in Lake Superior to reduce levels in lakes downstream.

Mr. Robinson said the move will probably decrease the level of Lake Erie by only five centimetres this fall, and it will be three years before there is any noticeable drop. Meanwhile, Lake Superior will rise and may cause problems, he said.

''Man can do only so much,'' he said. ''More and more people have built along shorelines and now there's a lot of damage being done and a lot of beachfront disappearing.''

Mr. Moulton said the Canada- Ontario Flood Damage Reduction Program, set up several years ago to map areas prone to flood damage, may begin to identify more land along the Great Lakes if the high levels persist.

ADDED SEARCH TERMS: *Ontario*Great Lakes water levels*storms*damage*

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851520234 SAT JUN.01,1985 PAGE: P1 (ILLUS)
CLASS: News
DATELINE: WORDS: 1173

Barrie May 31/85

** 400 homes levelled in Barrie **
** At least 12 die as*tornados***
** rip across Central*Ontario***

A line of*tornados*marched across Central*Ontario*and past Ottawa yesterday, killing at least 12 people, levelling or damaging more than 400 homes in the Barrie area and trapping dozens in a collapsed shopping mall near Orangeville.

Witnesses reported bodies lying on lawns in the southern part of Barrie after a tornado's funnel-shaped cloud ripped through the city of 45,000.

Five deaths in south Barrie were reported by police, and two people died near Tottenham, 30 kilometres south of Barrie - one man when a shed collapsed and a woman when her home was levelled and carried 110 metres from its foundation by high winds.

Police reported five more fatalities in Grand Valley.

Premier Frank Miller announced last night that any area in the province affected by the tornado will be eligible for financial aid.

He said he will tour the stricken communities of Barrie, Orangeville, Grand Valley and Holland Marsh today.

Officers at Canadian Forces Base Borden near Barrie dispatched at least 300 doctors, nurses and military police to help city police handle the disaster last night. Police from Simcoe County, Ontario Provincial Police

and soldiers went house to house with volunteers to search for victims.

Police said 85 Barrie-area people injured in the storm are in hospital.

Two children were admitted in critical condition to Toronto's Hospital for Sick Children and were being treated for multiple injuries. One person is in fair condition in St. Michael's Hospital.

Seven adults were in critical condition in Sunnybrook Medical Centre also suffering serious multiple injuries; three people were in critical condition at Toronto General Hospital.

Many of Metro Toronto's hospitals were on disaster alert last night.

At one point, police in Barrie, who feared looting and the danger of broken gas lines, said no one would be allowed into Barrie unless they could prove they lived there. The ban on travel was lifted at 11 p.m.

About 400 homes were destroyed or damaged in the southern part of Barrie and the Barrie Raceway was flattened, Sergeant Paul Dinsdale said.

Residents of Tottenham - who were hit twice within four hours - reported as many as 25 houses hit by the storm and police were calling the damage extensive. Homeowners were reported huddled in their basements about 9 p.m. when a second twister struck.

"Some roofs were ripped off houses and barns were ruined. Trees were ripped out," said Tottenham resident Kim Kerridge of the first storm.

One woman whose home was struck by the afternoon storm said it had taken barns "right from their foundations.

"It was devastating. There are trailer homes that are just gone," she said. "We are all outside and trying to help each other to clean up."

The tornado hit Grand Valley about 4:30 p.m., cutting a 100-metre-wide path through the centre of town. Several children were trapped when the local library collapsed under the force of the wind.

At least 60 homes were destroyed, trees were thrown down and cars were bounced into houses. Smashed glass covered streets.

Earlier, hailstones as big as tennis balls had been reported in the Niagara Peninsula, Ontario's prime fruit-growing region. Windows and car windshields were smashed. There was no early estimate of damage to trees or crops from the hail and accompanying high winds.

The storms came one night after greenhouses in the Leamington area near Windsor suffered about $15-million damage from a hailstorm. The area supplies much of Ontario's vegetable crop.

Highway 400, the major link between Toronto and Barrie, was closed by late afternoon. One observer said cars and trucks were "tossed about like toys" in the Barrie area.

The tornados, which plunged areas into darkness and lasted only minutes wherever they touched down, zigzagged from Shelburne and Grand Valley in Dufferin County east through York County, northern Peel Region, Barrie, Albion and Caledon East starting at about 4:40 p.m. yesterday.

Armed Forces officials reported a small tornado in Brighton, 16 kilometres west of Trenton, shortly after 7 p.m. as the storm continued its eastward sweep.

At 8:30 p.m., two tornados tore through the Ottawa area, one at the small Rockcliffe Airport and another in the Hull area at Highway 148, pulling down hydro lines and knocking out radar at the weather office, police said. No deaths or injuries were reported.

The storm had quieted considerably by the time it passed Montreal and headed for Quebec City.

In Ontario, high winds demolished a large portion of Mono Plaza, a shopping mall on Highway 10 about three kilometres north of Orangeville, sending 67 people to Orangeville's Dufferin Hospital.

TORN

Orangeville Reeve Arnold Patterson, part-owner of the Patterson's Furniture store, said he was standing near the store window "when all of a sudden the building started shaking.

"Everyone got down on the floor," he said. "Then the roof was gone and it felt like Niagara Falls was pouring on us."

Terrence Sullivan was in the nearby Dufferin County Agriculture Office. "I felt it coming," he said. "We got on the floor. It was kind of scary but there was no time to react."

The tornado ripped huge holes in the mall's concrete-block walls, tore off most of the roof and destroyed a large Cashway building centre.

An Environment Canada spokesman said winds "must have reached 85 to 90 km/h. Those were gale-force winds to cause so much damage."

An Ontario Hydro spokesman said the storm devastated the utility's main transmission lines out of the Bruce nuclear power development where two of five reactors were disconnected from the power system.

Hydro was forced to cut power to thousands of homes throughout Southern Ontario. At around 4:30 p.m., the utility reduced power voltage in the province by 5 per cent to compensate for the loss of the large generating units.

Robert Small, treasurer for the town of Oro near Barrie, noticed rough weather getting worse as he drove along Highway 400.

"I saw this long funnel cloud to my left," Mr. Small said. When he got home, the scene that greeted him was a desolate one.

"It was a complete and utter disaster. My house's windows were all smashed in, the trees were all blown down, the shingles were torn off the roof."

The tornado lasted about three minutes, he said. The skies over Barrie were sunny soon after the havoc began.

"If you can picture this, the frame and door to my daughter's room are now sitting at the end of the hallway. Not just the door - the door and the frame."

The Smalls were set to move next month into a house about four blocks from where they now live now. That house was also levelled.

"It's gone," he said. "The roof is blown off and the damage was heavy. It's a lot worse than the house I'm standing in."

Scott Rowe, a director of Barrie Raceway, was literally in the dark last night while the tornado flattened the track his grandfather built. Horses from nearby stables were reported wandering on the highway.

ADDED SEARCH TERMS: *tornados*storms*Ontario*deaths*

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851510229 FRI MAY.31,1985 PAGE: P1

CLASS: News

DATELINE: WORDS: 156

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Hail*damage
** $20 million **

A 20-minute hailstorm yesterday caused an estimated $20-million*damage*to farms in the Leamington area of Southwestern*Ontario,*shattering greenhouses and destroying crops.

Hail

851540221 MON JUN.03,1985 PAGE: M1
BYLINE: MIRO CERNETIG
CLASS: News
DATELINE:
WORDS: 573

Barrie May '85

** Disaster worst since Hurricane Hazel: insurers **
** Barrie*damage*estimated at $100 million **

By MIRO CERNETIG

Insurance companies are calling the*tornados*that descended on hamlets and towns in Central*Ontario*the worst natural disaster since Hurricane Hazel and estimate the*damage*will be as much as $100-million to the town of Barrie alone.

"We flew over by helicopter the next afternoon and we estimate the insurance industry will have about 10,000 claims worth at least $75-million to $100-million," said Gordon Findlay, a spokesman for Royal Insurance of Canada.

"I think we have just seen the tip of the iceberg. . . . It's really too early to say how extensive the damage is."

Edward Chick, vice-president of Royal, said: "This is a terrible disaster in terms of the amount of damage and the loss of lives. . . . I think Hurricane Hazel was probably the last storm of this magnitude."

Mr. Chick said he expects damage from the storm to cost Royal, Canada's second-largest insurance firm, at least $10-million.

"We have the resources to cover that amount, but it still is a significant loss to us all."

Insurance companies say that most people in the area will have some degree of insurance to offset their losses from the storm but add that many will be under- insured and some have no coverage at all.

"I have no doubt that there will be those who are not fully covered," said Doug McAlonen, claims manager for Zurich Insurance.

"There will be some people who haven't got sufficient insurance. But what that percentage is I really don't know. There is always a percentage of people who don't carry any insurance," Mr. Chick said.

For those who are insured, Royal and Zurich are making payments on the spot so that residents can begin repairs on their dwellings as soon as possible. Royal says it has given its adjusters the authority to sign cheques for up to $15,000 while Zurich says its adjusters can write cheques for an unlimited amount.

"This is the acid test of insurance companies - how quickly we can get people back on a level footing," Mr. Findlay said.

Reconstructing housing and lives, however, will call for more than just money, Ontario Housing Minister Dennis Timbrell said.

Areas hit by the tornados may not have enough skilled workers or building supplies available to rebuild what the storm has wiped out, he said.

"This is the worst natural disaster I've ever seen in my lifetime in Canada. . . . We'll probably have to help them to get enough people and material for building," Mr. Timbrell said.

"The Holland Marsh is absolutely littered with debris. . . . Many businesses and a number of factories have been totally destroyed."

Those affected by the tornados will need help in cleaning up the mess the storm has left and in finding employment, as well as requiring counselling to deal with the disruption the disaster has caused in their

lives, he said.
A disaster relief package will be presented to the provincial Cabinet this afternoon involving services from 17 Government ministries, Mr. Timbrell said at a news conference.
He would not announce any specific measures the aid package will include but said it provides "for helping people immediately. . . . Money is already starting to come in."
A meeting with all local councils in the disaster area is scheduled for this afternoon, he said, and the federal Government has been asked for financial assistance.
ADDED SEARCH TERMS: *tornados*storms*disasters*Ontario*

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851540174 MON JUN.03,1985 PAGE: M3
BYLINE: OLIVER BERTIN
CLASS: News
DATELINE: HOLLAND MARSH, Ont. WORDS: 709

***Storm*could mean rise ** ** in price of vegetables **

By OLIVER BERTIN
Globe and Mail Reporter

HOLLAND MARSH, Ont. - Vegetable prices could rise sharply in the next few days, the result of severe*storm*damage*in the productive Holland Marsh and Leamington areas.

Strong winds and hail caused an estimated $30-million damage to greenhouses near Leamington on Thursday. A day later, a tornado ripped through the Holland Marsh tearing lettuce, spinach, carrots and onions out of the ground and hurling them hundreds of metres away.

Worse, the storm tore down greenhouses full of young seedlings almost ready for planting.

Vegetable farmers estimate that at least one-quarter of the marsh was affected by the storm. Many farmers will lose a large proportion of their first crop and will not be able to plant a second.

"All we can do now is plant lettuce and carrots," said farmer John Czako, referring to some of the faster-maturing vegetables. "It's too late to replant onions."

If the damage is as severe as early reports indicate, fresh vegetables will be in short supply across the province until August, when the replacement crop will be ready. In the meantime, grocery stores will have to truck in more expensive produce from as far away as California, Arizona or Florida.

The cost of leafy vegetables, including lettuce, spinach and romaine, is expected to rise during the next few days. Later in the year, the supply of onions is likely to dry up and prices start to climb.

The tornado tore a wide swath through the north end of the marsh, causing extensive damage to crops, greenhouses and storage sheds from Highway 400 on the west to almost as far east as Highway 11.

Alberto Naso said he lost 80 per cent of his crop in 45 seconds. He started to pick his $50,000 crop of lettuce and spinach a few days before the storm and had a greenhouse full of seedlings ready to plant.

There are large patches of bare earth on his farm where, minutes before the tornado struck, there had been thousands of mature lettuce plants. Of the lettuce that remained, most was ripped to shreds by the fierce winds and the flying debris.

Mr. Naso's greenhouse lies in a twisted mess on the ground, and his storage shed and irrigation pipes are scattered over a 10-acre field. His 10-tonne truck was picked up and thrown on its side across the road.

One of the larger farmers on the marsh, Salvatore Svetano, lost six of his seven glass greenhouses and thousands of romaine seedlings. Neighbors estimated the damage at almost $1-million.

The wind tore every leaf and twig from a row of mature willow trees nearby.

Few of the farmers are covered by provincial crop insurance. "They charge us $50 a acre in premiums and they only give $300 back if we lose our crop," Mr. Czako said. "That won't even cover the cost of seed."

A few kilometres to the west, on higher ground, the tornado demolished houses and barns. Ron Harons of Tottenham lost buildings worth between $200,000 and $300,000. The wind tore the second story from his 100-year-old brick house and his barn collapsed, killing a cow and a donkey. His grain truck was carried 20 metres.

A neighbor within sight of Mr. Harons' yard lost a barn filled with pigs, and another neighbor lost a dairy barn and silo. In most cases, livestock escaped unharmed.

That was not the case everywhere. One Orangeville resident reported seeing dead cows on the road north of the town. They had been picked up by the wind and dashed back to earth.

In other areas, provincial representatives of the Ontario Ministry of Agriculture and Food reported damage to barns and other buildings, but little damage to crops.

Major crops - wheat, corn, hay and soybeans - appear to have weathered the storm. The plants, only a few centimetres high, are too small to have suffered permanent damage.

There were severe hailstorms on the north shore of Lake Erie, but they bypassed the Niagara fruitbelt. And although high winds swept through the apple-growing areas of Meaford and Brighton, the trees apparently escaped harm.

However, the full extent of the damage will not be known until mid-week at the earliest.

ADDED SEARCH TERMS: *storms*tornados*Ontario*agriculture

851540171 MON JUN.03,1985 PAGE: M3
BYLINE: BERTRAND MAROTTE
CLASS: News
DATELINE: BARRIE, Ont. WORDS: 466

Barrie May 85

Tornado

** City assesses*damage,***
** makes plans to rebuild **

By BERTRAND MAROTTE
Globe and Mail Reporter

BARRIE, Ont. - City officials and members of the business community are still trying to assess the physical and economic*damage*to Barrie caused by the*tornados*on Friday.

Bert Cook, the city's economic development officer, said about 250 to 300 employees of the 12 companies whose buildings were hit by the tornado would probably be affected for a maximum of three or four months.

He said many owners were already making plans to order steel and construction materials and that there is no question that most of the larger employers will rebuild.

Plans were being studied over the weekend to temporarily re-locate office employees and much of the inventory from the damaged buildings to the approximately 27,870-square-metre Black & Decker Canada Inc. plant in the city, where the company stopped production about a month ago and laid off approximately 600 people.

Georgian College also offered office space for companies to set up telephone lines and other operations beginning today.

Gordon Knox, vice-president of the Barrie Chamber of Commerce, on a tour of the levelled industrial area just west of Highway 400, said that if the tornado had struck 20 minutes before it did, "it would probably have killed 100 people." Most of the workers in the area left for home early because of the power blackout shortly before the tornado blew in.

At one of the larger plants, only a few twisted steel beams were left

(2)

Barrie

TORN

standing amid the debris.
Mr. Knox said that Jellco Packaging Ltd. and L & E Paper Ltd. were among the plants that suffered most.
Ronald Lynch, president of L & E, a paper and packaging firm, surveyed his severely damaged plant on Saturday and estimated it would take about three months to rebuild. He said he would try to enlist all 30 employees to help in the cleanup operation today.
The president of Barrie Raceway, William Caldwell, said an engineer's estimate of the damage to the $5-million track and facilities was $1.5-million to $2-million. He said the raceway, which employs about 100 people part-time, would take three or four months to rebuild.
Mr. Caldwell said the availability of tradesmen is critical to how fast homes and businesses can be rebuilt.
Insurance claims adjusters were making the rounds of damaged and destroyed homes and many local insurance companies were open for business yesterday.
Herbert Hickling of the Allstate Insurance Co. of Canada said a special catastrophe team of 30 people has been set up. Company officials are taking calls at a toll- free Toronto number and agents are checking damaged homes in Barrie.
He said about 400 claims inquiries for the entire region hit by the tornado and the storms proceeding and following it have been received so far.
ADDED SEARCH TERMS: *storms*tornados*Ontario*Barrie

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851540166 MON JUN.03,1985 PAGE: P1 (ILLUS)
BYLINE: STEPHEN BRUNT and ROSS HOWARD
CLASS: News
DATELINE: WORDS: 1023

Barrie May '85

May 31/85

** 'Worst natural disaster since 1954' **
***Tornado*victims begin rebuilding **

By STEPHEN BRUNT and ROSS HOWARD

More than two days after a brief but terrible*wind*left a long scar across Southern*Ontario,*those in the*tornados'*path have begun burying the dead and rebuilding broken homes and lives.

The impact of Friday's storm has yet to be fully understood, but some numbers are now fixed: 12 dead, between 400-500 injured, 300 houses destroyed, thousands homeless, 20,000 people without electricity.

It is being called the worst natural disaster in Ontario since Hurricane Hazel battered the province in 1954. There is no official damage estimate, but the insurance industry expects the cost in Barrie alone to be $100-million.

Ontario Housing Minister Dennis Timbrell said at a press conference yesterday that he would present a relief package to the provincial Cabinet today. The province will also ask for federal Government aid.

In addition, the Canadian Red Cross has set up a fund to forward donations to tornado victims.

Those killed in Friday's storm are: in Barrie, Todd Wilson, 9, Jonathon Poechman, 9, Paula Bobenham, 9, Danny Lefebvre, 5, and his mother, Patricia, 26, Wilhelmena Schoneveld, 66, David Vandeburgt, 27, and Luke Tremblay, 27; in Tottenham, John Oldfield, 66, and Yvonna Rabbetts, 59; in Grand Valley, Matilda McIntyre, 76, a visitor from Scotland, and Barry Wood.

Residents in Orangeville, Grand Valley, Tottenham, Alliston, Barrie and the surrounding countryside joined friends and relatives of the victims in relief efforts over the weekend, sifting through the wreckage and donating food, clothing and shelter.

Some power and telephones have already been restored, but in outlying areas it could be a week or more before service is back to normal.

Ontario's weather office now knows that three separate storm tracks moved through the province late Friday afternoon and evening. One pack of tornados touched down in a line through Grand Valley, Orangeville and Tottenham, another from Shelburne to Alliston, while a third moved west to

TOEN

east through the town of Barrie.

Tornados spawned at the same time from another weather system killed 61 people in rural Pennsylvania and yesterday insurance companies there were already handing out cheques.

But for those for whom the full impact of the storm has just begun to sink in, the meteorological intricacies are meaningless in the face of the task at hand.

In Barrie, a city of 45,000, 500 families were left homeless and at least 240 houses were declared uninhabitable.

On Sunday afternoon, a trickle of ashen-faced residents descended a hill from what had been Murray Court, a cul-de-sac reduced almost to nothing. Bits of green mud were splattered on the still-standing walls - dirt from farmers' fields many kilometres away.

Bruno Rasile stayed behind to sift through what was left of his home. "I built it myself," he said. "Two years it took, and now it is gone, all."

Nearby, a woman picked despondently through the wreckage, looking for the body of her dog.

Sylvia Mandel sorted through belongings piled in a yard now facing an almost unrecognizable structure marked "condemned."

"We've been here six years," she said, "and we worked 11 years to get this, with a big mortgage and all that. And in 30 seconds, it is all gone."

Brian Beford pointed to the tiny corner behind a sofa where he, his wife, their three children and three neighborhood children took shelter from the tornado. But the haven is visible only to his mind's eye - everything above foundation level was swept away.

"It was very, very noisy. It became absolutely solid roaring noise for maybe 15 seconds while the entire house was destroyed above our heads," he remembered.

"I thought I was a materialist, but now I'm just glad to be alive."

In Grand Valley, a town of 1,300 straddling the coffee-colored Grand River, what was once a tree-lined residential street has been reduced to bits of brick, glass and wood. Police said 101 houses were obliterated and 200 more damaged.

Two area residents were killed - one when a porch collapsed, and one when his car was thrown into a ditch by the wind.

Over the buzz of chainsaws and the groan and crunch of bulldozers piling into what once were homes full of life and memories, Al Wolfe stood grim-faced looking at a pile of broken boards dotted with familiar items of domestic life: chairs, a television set, croquet mallets, a black-velvet painting.

"I was sort of in a daze for a while," he said. "You just don't realize."

Mr. Wolfe had just invested $25,000 renovating the house, and a few thousand more for the brand new car - a little more than 100 kilometres on the odometer - which sat nearby crushed beneath what had been a stately maple tree.

But there were no tears. And like most now homeless, he pledged to rebuild.

"Most of the houses here have been standing for 150 years or more. The chance of this happening again in our lifetime is pretty slim."

Damage in Tottenham, where two died when houses collapsed, was limited to a country road skirting the edge of town. But there, a long string of farmhouses were levelled in the tornado's path. Bits of sheet metal that

once made up the walls and roofs of tool sheds were twisted around hydro poles and lines like strands of silver ribbon.

Busloads of local volunteers, wearing special armbands as part of the precautions taken to prevent looting, spent the weekend sifting through what remained of the homes and clearing debris from farmers' fields.

Premier Frank Miller and Mr. Timbrell toured the stricken area yesterday. In Grand Valley, Mr. Miller travelled through the devastation by police motorcade, stopping occasionally to chat with residents.

When 11-year-old Robin Bryan stepped forward to talk to the Premier in front of press photographers, someone shouted for her to smile. "It's not a day to smile, I'll tell you," Mr. Miller said.

Standing on her front porch, Mr. Ruth Hillis called out to Mr. Miller, "We're OK. Houses can be replaced."

Mr. Miller said that he was amazed people were taking the disaster "so philosophically and so calmly."

ADDED SEARCH TERMS: *storms*tornados*disasters*deaths*Ontario*

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851550319 TUE JUN.04,1985 PAGE: B3
BYLINE: ANGELA BARNES
CLASS: ROB
DATELINE: WORDS: 401

Barrie
May '85

Tornados

***Tornados*give insurers **
** a doubly terrible year **
By ANGELA BARNES

The*tornados*that struck Central*Ontario*last Friday and the earlier*hail*
*storm*that did considerable*damage*in the Leamington, Ont., area will make a terrible year for general insurers into a "doubly terrible year," according to Ted Belton, president of the Insurers Advisory Organization.

Last year, the general insurance industry suffered its worst underwriting loss on record. But investment income more than offset that loss.

The underwriting losses continued in the first quarter this year. Results from the largest companies seem to be pointing to an over-all loss, which translates into a loss of capital. There was an over-all loss in the last 1984 quarter as well.

The projected loss ratio in the 1985 first quarter is 120 per cent, which would mean that that insurers paid out $1.20 in claims and expenses for each dollar of premium taken in, compared with $1.12 for 1984 as a whole.

Investment income in the first quarter is estimated at 15 to 15.5 per cent of premiums. This would result in a loss of capital of "fairly significant magnitude," Mr. Belton said.

The storms "will knock the hell out of the second quarter." The tornado-related losses will go down in history as the largest weather related claim in Canada, he said.

The tornados did an estimated $100-million in damage in Barrie alone. Other Ontario communities were also hit hard. And the windstorm that destroyed greenhouses around Leamington caused an estimated $30-million damage. Large as those figures are, they are relatively small compared with the total for claims on general insurers across Canada in a year.

The impact of the claims arising out of the tornados and storms on individual insurers will be lessened by the fact that almost all insurers have catastrophe or stop loss reinsurance. As a result, a substantial part of the loss from the tornados and the storm will be spread around the world.

@ Barrie

insurance

Loan Hall
Barrie TOR

The impact is also lessened because the cost is amortized over 10 years.

Mr. Belton said losses arising out of the tornados are not likely to threaten the solvency of any insurer. Also, they are not likely to have much of an impact on premium rates. There will be some impact on premiums, but "not as great as the numbers cause you to believe at first blush."

Premium rates are increasing, but it is because of tightening in the market.

ADDED SEARCH TERMS: *storms*tornados*Ontario*insurance statistics

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851550094 TUE JUN.04,1985 PAGE: M5
BYLINE: PAUL TAYLOR
CLASS: News
DATELINE:
WORDS: 511

** Army of adjusters invades*tornado*zone **
By PAUL TAYLOR

A small army of insurance adjusters has descended on the*tornado-stricken* areas of central*Ontario*to assess*damage*and help victims rebuild their lives.

"It's going to take us months to put a final figure on the damage caused by this disaster," said William Weafer, vice-president for the Ontario division of The Co-operators General Insurance Co.

But, in the meantime, the insurance companies are doing what they can for those who have lost their homes and businesses.

The Insurance Bureau of Canada, a trade organization, has set up an emergency co-ordinating office in a trailer at a curling club in Barrie - one of the worst-struck communities in the province.

"We are doing our best to provide advice," IBC spokeman Nigel Dunn said. "A lot of people think they don't have any insurance coverage because a tornado is considered an 'act of God.' But, contrary to popular belief, most insurance policies do provide protection from wind damage, including tornados."

Each of the major insurance firms has beefed up its operations to deal with the hundreds of claims that could reach between $75-million and $100-million in Barrie alone.

Officials of the Royal Insurance Co. of Canada are wearing armbands to identify themselves as adjusters when they go through rubble.

"All sorts of people are floating around," Royal Insurance spokesman Gordon Findlay said. "We don't want to be mistaken for looters."

Mr. Weafer said the The Co-operators offices in Orangeville and Barrie "will be open from 9 a.m. to 9 p.m. seven days a week until things settle down."

The company has brought in more than 20 adjusters from other areas to help with the extra workload, and it could recruit an additional 75 to 100 people if they are needed. "We have people on standby from Moncton to Calgary," Mr. Weafer said.

"The damage is so extensive and the people are in such great shock that it's going to take a while for all the claims to come in - and it's going to take many more months to rebuild," he said.

The IBC plans to recruit additional building contractors from other areas to repair damaged homes, factories and public buildings. "There are just not enough builders in the area to do the job," said Lorne McCabbin, chairman of the IBC's Ontario emergency claim response plan.

Insurance companies are also dealing with immediate needs. Some firms, for instance, are bringing in mobile homes as temporary accommodation for the homeless. Others are helping people to find nearby hotel accommodation.

To cover immediate expenses, the adjusters have the authority to issue cheques on the spot to tornado victims. Royal Insurance has given its adjusters the authority to sign cheques up to $15,000; adjusters for Zurich Insurance Co. have no limits.

Mr. Findlay said that Royal Insurance also is arranging storage space for many of the household goods left untouched by the tornado. "There's no point leaving a television set exposed to the elements, when it has survived intact in a house hit by a tornado."

ADDED SEARCH TERMS: *Ontario*tornados*storms*property insurance

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851550090 TUE JUN.04,1985 PAGE: M5
BYLINE: BEVERLEY SMITH
CLASS: News
DATELINE: WORDS: 278

Barrie May 85

***Damage*to Barrie's racetrack **
** not so bad, safety report says **

By BEVERLEY SMITH

The*damage*to Barrie Raceway's grandstand is not as bad as originally feared, preliminary safety reports show.

On Saturday, building inspectors condemned the grandstand after a twister hit it Friday.

"One of the walls had shifted substantially and they were concerned that someone could be hurt by loose rubble," said Simcoe Centre MPP Earl Rowe, whose family owns about 80 per cent of the track. Mr. Rowe's grandfather, Earl, former lieutenant-governor of Ontario, founded the track 10 years ago.

The grandstand's roof also caved in as far as the second floor, which includes the dining room and track offices. The large glass windows in the dining room were all blown out.

"There wasn't a fence left on the place," Mr. Rowe said.

During the past two days, however, structural engineers have inspected the battered grandstand, and believe it is structurally sound enough to repair.

"The grandstand looks worse than it is," Mr. Rowe said. "To look at it, you wouldn't think anything is left."

If the grandstand were to be built from scratch, the cost would be as high as $5-million, Mr. Rowe said. He estimated the cost would be $1-million if only repairs are needed.

Depending on how soon it can get contractors to do the work, the track could be back in operation by October or November, he said.

The tornado destroyed two of the track's barns, leaving only the foundations. "They're just gone," said Scott Rowe, one of the track directors. The barns are adjacent to the grandstand. "Those barns were full of horses, but not one horse was injured. They were standing in their stalls looking up at the sky."

ADDED SEARCH TERMS: *Ontario*tornados*storms*

@ Barrie

TORN

851610121 MON JUN.10,1985 PAGE: M1
BYLINE: THERESA TEDESCO
CLASS: News
DATELINE: WORDS: 1172

'85

Barrie May '85

** Counsellors expect widespread reaction **
** Mental stress surfaces in*tornado*victims **

By THERESA TEDESCO

Community counsellors expect hundreds of people to use the stress support services set up to help residents of Central*Ontario*in the aftermath of the recent*tornado*that caused widespread*damage*to several communities.

Bertram Phillips, medical officer of Simcoe County, said that mental strain and trauma resulting from seeing a lifetime's work flattened in a few seconds and flashbacks of panic caused by dark skies and whirling winds are expected to reach a pitch within the next two weeks.

"There is no doubt in my mind that there are going to be a lot of people who will be apprehensive about windstorms and thunderstorms," he said. "The grief is there and it started to come out a few days after the tornado when the enormity of the disaster penetrated."

Some will feel this way temporarily while others could be affected for the rest of their lives, and Dr. Phillips said he wants to ensure that people are conselled by trained professionals.

He said that most people have experienced what he terms the "acute" trauma phase, which lasts up to two weeks and is characterized by anxiety and mild shock.

Churches and various social services groups dealt with hundreds of cases in the first week and teachers have noticed that students are abnormally frustrated and have tended to ventilate their anger more than usual.

But Dr. Phillips said that the people who will suffer longer- term effects are usually those who have deeper psychological disorders that existed before the disaster.

He described this stage as "delayed reaction" that can last up to a month after the incident.

"People keep feelings bottled up that can manifest themselves and arise out of other situations, and we want to be certain they get professional evaluations from trained counsellors," he said.

The Ontario Ministry of Community and Social Services will spend an estimated $55,000 to set up the stress-counselling services, which will include 15 community health nurses, 12 social nurses from the ministry and personnel from the Simcoe County District Health Unit.

Dr. Phillips said the program will continue as long as it is needed,

but he does not anticipate it will become permanent.

Many Barrie residents are harboring angry thoughts and mixed emotions about their material losses.

Barbara Fletcher said she will feel "real psychological pressure" until she can get settled into her Murray Street home, which was destroyed by the heavy winds.

"I think we're all in for lows if we don't get quite what many of us hoped for," she said, referring to the endless insurance claim forms she has filled out.

Ten-year-old Natalie Cavanaugh cried all night until she heard that her friends were safe, but her mother Ann said the long-term effect of rebuilding their home and trying to establish a sense of normality will probably have an effect on her family.

"I don't like being alone. I'm wandering about and just can't get on an even keel because I feel so spaced out. I hope this doesn't last long."

Marion Pullbrook cannot concentrate on anything but the storm. "I'm in a daze because I don't know what to do," she said. "The less I go in that house, the better."

Mrs. Pullbrook's house on Adelaide Street in Barrie is an empty shell filled with glass, mud and garbage swept in by the winds. Although she is staying at her son's home in Barrie, she still cries at the thought of her 14-year-old home destroyed by the tornado.

"I'm going to have to use the stress hotline," she said, "because I keep getting different responses from my insurance agencies and contractors."

Dr. Phillips warned that people will become frustrated by unnecessary delays and "they will feel justified to react more strongly than they would normally." He said some people will never accept the damage to their lives and they do not need other frustrations and what appear to be delays or "unethical building contractors taking their time."

The problems created by the recent tornado are not unlike those suffered by victims of a tornado that swept through Woodstock, Ont., six years ago.

"We know exactly what they're going through in Barrie," said Geraldine Armstrong, whose home was ripped apart by the Woodstock tornado. "You just don't forget about it."

Almost every one of the 25 houses in Oxford Centre in the northwest corner of Woodstock was damaged by a tornado that caused $60-million worth of damage and killed three people.

Damaged houses were repaired in the area within four to six months and most of the area's residents agree that getting back into their homes quickly provided a big psychological boost.

"It took us a year to fix our home because we did it ourselves," Mrs. Armstrong said. "Until we got it fixed, I just couldn't sleep or eat properly."

But there are still psychological problems lingering among some of the residents that relief funds and insurance companies could not treat.

Brian DeKlerck, 17, remembers the storm too well - he occasionally has trouble sleeping and still insists on heading for the basement at the first sign of a heavy thunderstorm.

"We had an awful time with him," said his mother Roberta. "If the sky starts to look funny . . . "

Brian suffered a broken ankle when the family's organ fell on his leg, pinning him to the floor for most of the storm.

His 11-year-old sister Christine received a huge gash to her middle

60 has led to a new five-year agreement with Hydro-Quebec for production at its Gentilly-2 reactor.

Under the agreement announced this week, AECL will get all the reactor's cobalt production, with the first removal taking place next fall.

ADDED SEARCH TERMS: cobalt cancer*Ontario*Hydro*storms*tornados*

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851660173 SAT JUN.15,1985 PAGE: H8
CLASS: Homes
DATELINE: WORDS: 146
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Barrie Tornado 1985

** Realtors **
** make **
** donation **
** to relief **
** fund **

The*Ontario*Real Estate Association Foundation has donated $20,000 to two of the communities hardest hit by the tornadoes that caused extensive *damage*across central*Ontario*two weeks ago.

Barrie and Orangeville have received $15,000 and $5,000, respectively, from the charitable organization. The presentation was made by Walter Dean, an Orillia-area real estate broker and past president of the Ontario Real Estate Association, and George Worrall, a Barrie-area broker and regional vice-president of the association.

The foundation was established by the province's real estate association in 1967 as an industry centennial project. In the years since, it has contributed to several disaster relief funds in the province as well as to the restoration of heritage buildings and other community projects.

Donations

The Ontario Real Estate Association itself represents 30,000 real estate brokers and sales agents in 48 local real estate boards across the province.

ADDED SEARCH TERMS: *Ontario*storms*tornados*charities

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::
851640035 THU JUN.13,1985 PAGE: P7

851580289 FRI JUN 07, 1985 PAGE: M1
BYLINE: MARY GOODERHAM
CLASS: News
DATELINE: WORDS: 578

Barrie May '85

Tornado*damage
** hits $150 million, **
** officials estimate **

By MARY GOODERHAM

The bill for*damage*caused by*tornados*that ripped through Central*Ontario* on Friday will probably exceed $150-million, provincial, municipal and insurance officials estimate.

The Insurance Bureau of Canada said yesterday that insurance companies expect to pay out about $125-million in claims to individuals and companies that suffered damage in the tornados that left 12 dead and thousands homeless.

At least a dozen people remain in hospital in Barrie, Alliston, Newmarket, Orangeville, Shelburne and Toronto.

Toronto's Hospital for Sick Children has upgraded the condition of 9-year-old Niki-Lee Lefebvre, whose mother and brother were found dead near their Barrie home after the tornado swept through. Her condition now is listed as serious, while most of the other tornado victims are in satisfactory or good condition.

Municipal Affairs and Housing Minister Dennis Timbrell told the Legislature yesterday that he estimates the Ontario Government will provide more than $20- million in assistance to people without insurance and to rebuild municipal and provincial buildings and services.

Mr. Timbrell, the minister responsible for co-ordinating the province's relief efforts, said he wants to set up a committee with members from all three parties to avoid the present heavily partisan atmosphere of the Legislature.

''This is one thing we can keep out of politics," he said in an interview.

The federal Government has promised to begin financing relief efforts when the provincial contribution exceeds $9-million, he said.

A relief fund set up to field donations from individuals and companies - which is to be matched by provincial financing at a three-to-one ratio - has reached about $400,000, although officials will not know exactly how much has been collected until the funds are pooled by an agency appointed yesterday.

The 15-member Central Ontario Disaster Relief Committee was to meet for the first time last night to consolidate the donations coming in for the

ORANGEVILLE
ONTARIO

Scale 1:50,000 Échelle

Miles 1 0 1 2 3 Miles
Metres 1000 0 1000 2000 3000 4000 Mètres
Yards 1000 0 1000 2000 3000 4000 Verges

CONTOUR INTERVAL 25 FEET
Elevations in Feet above Mean Sea Level
North American Datum 1927
Transverse Mercator Projection

EQUIDISTANCE DES COURBES 25 PIEDS
Élévations en pieds au-dessus du niveau moyen de la mer
Système de référence géodésique nord-américain, 1927
Projection transverse de Mercator

Refer to this map as: 40P/16 EDITION 2 MCR SERIES A 751

ONE THOUSAND METRE
UNIVERSAL TRANSVERSE MERCATOR GRID
ZONE 17

GRID ZONE DESIGNATION	100,000 M. SQUARE IDENTIFICATION
17 T	NU

EXAMPLE OF METHOD USED TO GIVE A REFERENCE TO NEAREST 100 METRES
THE FOLLOWING GRID REFERENCE IS A SAMPLE ONLY AND DOES NOT REFER TO A POINT ON THIS MAP

REFERENCE POINT	CHURCH (as above)
EASTING. Read number on grid line immediately to left of point	97
Estimate tenths of a square from this line eastward to point	5
NORTHING. Read number on grid line immediately below point	975
Estimate tenths of a square from this line northward to point	98 4
EXAMPLE MILITARY GRID REFERENCE 975984	984

Nearest similar grid reference 100,000 metres (about 63 miles)

TABLEAU D'ASSEMBLAGE DU SYSTÈME NATIONAL DE RÉFÉRENCE CARTOGRAPHIQUE

41 A/2	41 A/1	31 D/4
40 P/15	40 P/16 ORANGEVILLE	30 M/13
40 P/10	40 P/9	30 M/12

INDEX TO ADJOINING MAPS OF THE NATIONAL TOPOGRAPHIC SYSTEM

ORANGEVILLE
40 P/16
EDITION 2

First edition map updated by the SURVEYS AND MAPPING BRANCH, DEPARTMENT OF ENERGY, MINES AND RESOURCES, from aerial photographs taken in 1969. Culture check 1970. Printed 1973.

Copies may be obtained from the Canada Map Office, Department of Energy, Mines and Resources, Ottawa, or your nearest map dealer.

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Roads: Routes:
hard surface, all weather ... pavée, toute saison ... dual highway 2 chaussées séparées ... more than 2 lanes plus de 2 voies
hard surface, all weather ... pavée, toute saison ... 2 lanes 2 voies ... less than 2 lanes moins de 2 voies
loose or stabilized surface, all weather ... gravier aggloméré, toute saison ... 2 lanes or more 2 voies ou plus ... less than 2 lanes moins de 2 voies
loose surface, dry weather and unclassified streets ... de gravier, temps sec et rues hors classe
cart track ... de terre
trail or portage ... sentier ou portage

FOR COMPLETE REFERENCE SEE REVERSE SIDE POUR UNE LISTE COMPLÈTE DES SIGNES, VOIR AU VERSO

Première édition mise à jour par la DIRECTION DES LEVÉS ET DE LA CARTOGRAPHIE, MINISTÈRE DE L'ÉNERGIE, DES MINES ET DES RESSOURCES, d'après des photographies aériennes prises en 1969. Vérification des ouvrages en 1970. Imprimée en 1973.

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Use diagram only to obtain numerical values.
APPROXIMATE MEAN DECLINATION 1972
FOR CENTRE OF MAP
Annual change increasing 1.1'

T.N. 0° or 142 Mils; 0° 31' or 9 Mils; Magnetic North; Grid North

CONVERSION SCALE FOR ELEVATIONS
Feet 0 50 100 150 200 250 300 350 400 450 500 550 600 650 700 750 800 850 900 950 1000
Metres 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300

COUNTY OF DUFFERIN
COUNTY OF WELLINGTON
REGIONAL MUNICIPALITY OF PEEL
REGIONAL MUNICIPALITY OF HALTON
COUNTY OF SIMCOE

1:50,000 CONVENTIONAL SIGNS

TRANSPORTATION AND RELATED FEATURES
(SYMBOLS BLACK UNLESS OTHERWISE STATED)

- Hard surface, all weather more than 2 lanes — Dual
- Hard surface, all weather 2 lanes — Red
- Hard surface, all weather less than 2 lanes — Red
- Loose or stabilized surface, all weather 2 lanes or more — Orange
- Loose or stabilized surface, all weather less than 2 lanes — Orange
- Loose surface, dry weather or unclassified streets — Orange
- Cart track, winter road
- Trail, portage, cut line
- Highway route markers — 15 — Orange or red
- Built up area — Red screen
- Railway, single track
- Railway, multiple track
- Railway, narrow gauge
- Railway siding
- Railway station, stop and turntable
- Bridge
- Drawbridge
- Tunnel
- Ferry
- Ford
- Navigation light
- Seaplane base, anchorage

LANDMARK FEATURES

- House, barn, large buildings, outbuildings
- Church, school
- Shrine, non-christian place of worship
- Post office, telegraph office — P. — T.
- Elevator, Greenhouse — E. — Greenhouse
- Historical site, historical battlefield
- R.C.M.P. Post
- Towers, similar objects
- Windmill or windpump
- Well: oil, gas
- Tank: oil, gasoline, water
- Gas tank: gasometer
- Telephone line
- Power transmission line
- Campsite
- Mine
- Quarry
- Dyke
- Cutting, embankment

BOUNDARIES AND CONTROL

- International boundary monument — Red screen
- Province or state
- County or district
- Township or parish
- Township unsurveyed
- Metropolitan area
- Municipality
- Indian reserve, park, etc.
- Section line
- Surveyed line, lot line, etc.
- Horizontal control point
- Bench mark
- Spot elevation, elevation approximate — 289 — 277.5 — Brown

DRAINAGE AND RELATED FEATURES

- Stream, shoreline: indefinite — Blue
- Direction of flow
- Lake: intermittent, dry — Blue & Brown
- Inundated, flooded land — Blue
- Marsh or swamp
- Dry river bed with channels — Blue & Brown
- String bog
- Tundra: ponds, polygons — Blue
- Falls
- Rapids
- Swimming pool, reservoir, dugout
- Spring: perennial, intermittent
- Well: perennial, intermittent
- Foreshore flats
- Submerged reef
- Rock
- Rocky ledge, rocky reef
- Dam
- Locks
- Breakwater: small, large, submerged
- Wharf, seawall
- Ferry slip, dry dock, ramp

RELIEF FEATURES (SYMBOLS BROWN UNLESS OTHERWISE STATED)

- Contours
- Approximate contour
- Depression contour
- Form line
- Cliff
- Esker
- Pingo
- Glacial crevasse — Blue
- Sand, sand dunes
- Moraine, scree
- Distorted surface
- Palsa bog — Blue & Brown
- Wooded area — Green

1:50,000 SIGNES CONVENTIONNELS

VOIES DE COMMUNICATION ET AMÉNAGEMENTS CONNEXES
(SYMBOLES NOIRS À MOINS D'INDICATION CONTRAIRE)

- Surface dure, toutes saisons, plus de 2 voies — Double
- Surface dure, toutes saisons, 2 voies — Rouge
- Surface dure, toutes saisons, moins de 2 voies — Rouge
- Gravier ou surface durcie, toutes saisons, 2 voies ou plus — Orange
- Gravier ou surface durcie, toutes saisons, moins de 2 voies — Orange
- Gravier, temps sec ou rues hors classe — Orange
- Chemin de terre, d'hiver
- Sentier, portage, percée
- Signalisation routière — 15 — Orange ou Rouge
- Agglomération — Écran rouge
- Chemin de fer, voie unique
- Chemin de fer, voies multiples
- Chemin de fer, voie étroite
- Voie d'évitement
- Gare, arrêt et plaque tournante
- Pont
- Pont mobile
- Tunnel
- Bac
- Gué
- Feu de navigation
- Hydroaéroport, mouillage

POINTS DE REPÈRE

- Maison, grange, grands édifices, dépendances
- Église, école
- Sanctuaire, lieu de culte non chrétien
- Bureau de poste, bureau de télégraphe — P. — T.
- Élévateur, serre — E. — Greenhouse
- Lieu historique, champ de bataille historique
- Poste de la G.R.C.
- Tours et constructions semblables
- Roues éoliennes
- Puits: pétrole, gaz
- Réservoir: pétrole, essence, eau
- Réservoir à gaz: gazomètre
- Ligne téléphonique
- Ligne de transport d'énergie
- Camping
- Mine
- Carrière
- Digue
- Tranchée, remblai

FRONTIÈRES ET POINTS DE RÉFÉRENCE

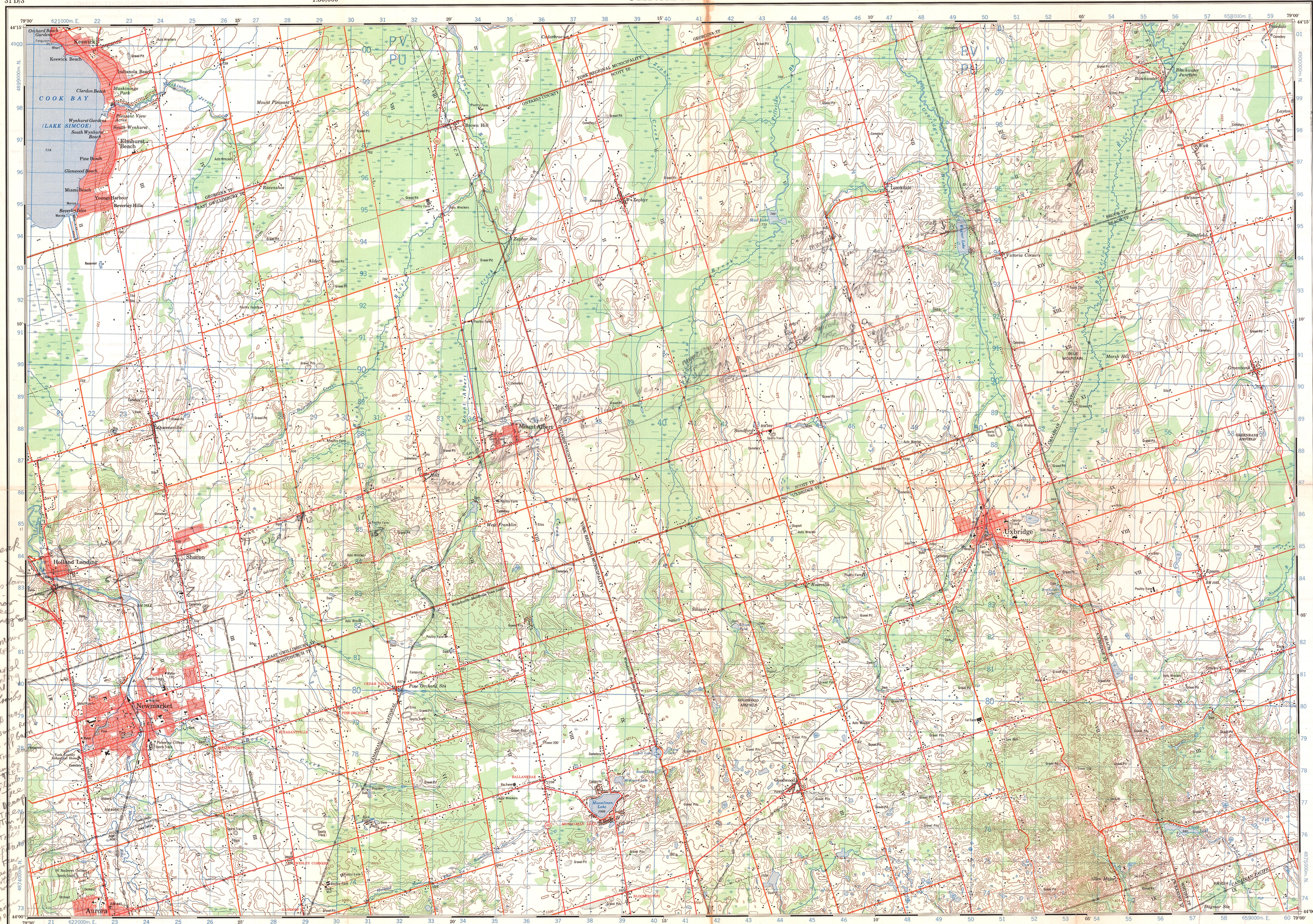
- Internationale, borne frontière — Écran rouge
- Province ou État
- Comté ou district
- Township ou paroisse
- Township non arpenté
- Région métropolitaine
- Municipalité
- Réserve indienne, parc, etc.
- Ligne de section
- Ligne arpentée, ligne de lot, etc.
- Repère planimétrique
- Repère de nivellement
- Point coté, élévation approximative — 289 — 277.5 — Brun

DRAINAGE ET AMÉNAGEMENTS CONNEXES

- Cours d'eau, rive: imprécise — Bleu
- Direction du courant
- Lac: intermittent, tari — Bleu & Brun
- Terrain inondé — Bleu
- Marais ou marécage
- Lit de cours d'eau tari avec chenaux — Bleu & Brun
- Marécages en enfilade
- Toundra: étangs, sols polygonaux — Bleu
- Chutes
- Rapides
- Piscine, réservoir, abreuvoir
- Source: intarissable, intermittente
- Puits: intarissable, intermittent
- Estrans
- Récif submergé
- Roche
- Barre rocheuse, récif rocheux
- Barrage
- Écluses
- Brise-lames: petit, grand, submergé
- Quai, digue
- Cale de chargement, cale sèche, rampe de chargement

RELIEF (SYMBOLES BRUNS À MOINS D'INDICATION CONTRAIRE)

- Courbe de niveau
- Courbe de niveau approximatif
- Courbe de cuvette
- Courbe intercalaire
- Falaise
- Esker
- Pingo
- Crevasse glaciaire — Bleu
- Sable, dunes
- Moraine, éboulis
- Surface déformée
- Palse — Bleu & Brun
- Région boisée — Vert


Keswick
Keswick Beach
Orchard Beach Gardens
Indianola Beach
Clardon Beach
Maskinonge Park
COOK BAY
(LAKE SIMCOE)
Wynhurst Gardens
Pleasant View Acres
South Wynhurst
South Wynhurst Beach
Elmhurst Beach
Pine Beach
Glenwood Beach
Miami Beach
Young Harbour
Beverley Hills
Beverley Isles
Maskinonge Creek
Mount Pleasant
Brown Hill
Cedarbrae
Ravenshoe
Zephyr
Zephyr Sta
Alder
Mount Albert
Queensville
Sandford
West Franklin
Holland Landing
Sharon
Newmarket
Pine Orchard Sta
Aurora
Lovekdale
Victoria Corners
Blackwater Junction
Blackwater
Bloomdale
Layton
Saintfield
Marsh Hill
Greenbank
Uxbridge
Epsom
Roseville
Sibbald
Goodwood
Musselman Lake
Udora
Pagmar Sta
GEORGINA TP
EAST GWILLIMBURY TP
YORK REGIONAL MUNICIPALITY
SCOTT TP
ONTARIO COUNTY
BROCK TP
BEACH TP
SCUGOG TP
UXBRIDGE TP
WHITCHURCH TP
EAST GWILLIMBURY TP
CANADIAN NATIONAL
CANADIAN PACIFIC
GREENBANK AIRFIELD
BLUE MOUNTAIN
YORK-DURHAM
Holland River
Black River
Pefferlaw River
Lake Simcoe
Mud Lake
Cook Bay
Marsh
Gravel Pit
Poultry Farm
Cemetery
Auto Wrecker
Sports Track
Dam
Silos
Quarry
Campsite
Golf Course
Reservoir
Marina
Ferry
Wharf
Fairgrounds
Pumping Station
Tower
Church
Hydro Line
Pipe Line
Trail
Road
Railway
Bridge
Ford
Ferry
Swamp
Orchard
Vineyard
Scrub
Deciduous
Coniferous
Mixed Trees
Rock
Sand
Contour
Index Contour
Depression Contour
Spot Elevation
Bench Mark
Triangulation Station
Elevation
Built-up Area
Urban Area
Rural Area
Industrial Area
Park
Golf Course
Cemetery

CONVENTIONAL SIGNS

(Black unless otherwise stated)

- Dual highway
- Road, hard surface, all weather, more than 2 lanes — Red
- Road, hard surface, all weather, 2 lanes — Red
- Road, hard surface, all weather, less than 2 lanes — Red
- Road, loose or stabilized surface, all weather, 2 lanes or more — Orange
- Road, loose or stabilized surface, all weather, less than 2 lanes — Orange
- Road, loose surface, dry weather or unclassified streets — Orange
- Cart track or winter road
- Trail, cut line or portage
- Road under construction — Orange or red
- Highway interchange with number; traffic circle — 42 — Red
- Highway route marker — 5 — Orange or red
- Built up area — Red screen
- Railway, single track
- Railway, multiple track
- Railway, narrow gauge
- Railway, abandoned
- Railway station; stop; turntable
- Bridge; footbridge
- Bridge: swing, draw, lift
- Tunnel
- Ferry
- Ford
- Navigation light
- Seaplane base; seaplane anchorage
- Vessel anchorage: large, small
- House; barn; large building
- Church; school
- Post office; telegraph office — P. T.
- Elevator; greenhouse — E.
- Cemetery; historic site; historic battlefield — E
- Tower, chimney, similar objects
- Windmill or windpump
- Sewage disposal, filtration bed — Black & Blue
- Well: water — Blue
- Well: oil, gas
- Tank: oil, gasoline, water
- Gasometer
- Pipeline with control valve
- Pipeline: above ground, underground
- Telephone line
- Power transmission line
- Campsite; picnic site
- Sports track
- Retaining wall: large, small
- Mine
- Gravel or sand pit; quarry
- Dyke; fence
- Cutting; embankment
- International boundary with monument — Red screen
- Province, territory, or state boundary
- County or district boundary
- Township, parish, borough boundary
- Township boundary, unsurveyed
- Metropolitan area boundary
- City, municipality or parish (Québec) boundary
- Reserve, park, etc. boundary
- Section line
- Surveyed line, lot line
- Horizontal control point — △
- Bench mark with elevation — BM 1475
- Spot elevation: precise, non-precise — •2520 — •2247m — Brown
- Stream or shoreline, indefinite — Blue
- Irrigation canal, drain, ditch — Blue
- Direction of flow — Blue
- Lake intermittent, slough — Blue
- Flooded land, seasonally inundated land — Blue
- Marsh or swamp — Blue
- Dry river bed with channels — Blue & Brown
- String bog; palsa bog — Blue & Brown
- Tundra ponds; tundra polygons — Blue & Brown
- Falls — Blue
- Rapids — Blue
- Reservoir, dugout, swimming pool — Blue
- Foreshore flats — Brown
- Submerged reef — Brown
- Rocks — Brown
- Rocky ledge, rocky reef — Brown
- Dams: small, large — Brown
- Locks: small, large — Brown
- Wharf, breakwater, pier, dock; seawall — Brown
- Ferry slip; dry dock; ramp — Brown
- Contours — Brown
- Approximate contours — Brown
- Depression contours — Brown
- Cliff — Brown
- Esker — Brown
- Sand; sand dunes — Brown
- Moraine, scree — Brown
- Distorted surface — Brown
- Glacial crevasse — Blue
- Wooded area — Green
- Orchard — Black & Green

SIGNES CONVENTIONNELS

(Noir à moins d'indication contraire)

- Route à deux chaussées séparées
- Route pavée, toutes saisons, plus de 2 voies — Rouge
- Route pavée, toutes saisons, 2 voies — Rouge
- Route pavée, toutes saisons, moins de 2 voies — Rouge
- Route de gravier ou surface durcie, toutes saisons, 2 voies ou plus — Orange
- Route de gravier ou surface durcie, toutes saisons, moins de 2 voies — Orange
- Route de gravier, temps sec ou rues hors classe — Orange
- Chemin de terre ou d'hiver
- Sentier, percée ou portage
- Route en construction — Orange ou rouge
- Échangeur avec numéro; rond-point — 42 — Rouge
- Signalisation routière — 5 — Orange ou rouge
- Agglomération — Trame rouge
- Chemin de fer, voie unique
- Chemin de fer, voies multiples
- Chemin de fer, voie étroite
- Chemin de fer désaffecté
- Gare; arrêt sur signal; plaque tournante
- Pont; passerelle
- Pont mobile: pivotant, roulant, levant
- Tunnel
- Traversier
- Gué
- Feu de navigation
- Hydroaéroport; mouillage d'hydravion
- Mouillage pour gros navires; petits navires
- Maison; grange; grand bâtiment
- Église; école
- Bureau de poste; bureau de télégraphe — P. T.
- Élévateur; serre — E.
- Cimetière; lieu historique; champ de bataille historique — E
- Tour, cheminée, constructions semblables
- Roue éolienne
- Lit d'épuration des eaux-vannes, lit de filtration — Noir & Bleu
- Puits d'eau — Bleu
- Puits: gaz, pétrole
- Réservoir: pétrole, essence, eau
- Gazomètre
- Pipe-line avec vanne de réglage
- Pipe-line sur terre, sous terre
- Ligne téléphonique
- Ligne de transport d'énergie
- Campement; terrain de pique-nique
- Piste de course
- Mur de soutènement: grand, petit
- Mine
- Gravière ou sablière; carrière
- Digue; clôture
- Déblai; remblai
- Frontière internationale avec bornes-repères — Trame rouge
- Frontière de province, de territoire, ou d'état
- Limite de comté ou de district
- Limite de canton, de paroisse, de borough
- Limite de canton non arpentée
- Limite de région métropolitaine
- Limite de cité, municipalité ou paroisse (Québec)
- Limite de réserve, de parc, etc.
- Ligne de section
- Ligne arpentée, ligne de lot
- Repère planimétrique — △
- Repère de nivellement avec cote — BM 1475
- Point coté: précis, imprécis — •2520 — •2247m — Brun
- Cours d'eau ou rive; imprécis — Bleu
- Canal d'irrigation, de décharge, fossé — Bleu
- Direction du courant — Bleu
- Lac intermittent, bourbier — Bleu
- Terrain inondé, inondation saisonnière — Bleu
- Marais ou marécage — Bleu
- Lit de cours d'eau tari avec chenaux — Bleu & Brun
- Marécage en enfilade; palse — Bleu & Brun
- Étangs de toundra; sols polygonaux de toundra — Bleu & Brun
- Chutes — Bleu
- Rapides — Bleu
- Réservoir, abreuvoir, piscine — Bleu
- Estrans — Brun
- Récif submergé — Brun
- Roches — Brun
- Barre rocheuse, récif rocheux — Brun
- Barrages: petits, grands — Brun
- Écluses: petites, grandes — Brun
- Quai, brise-lames, jetée, bassin; digue — Brun
- Cale pour traversier; cale sèche; rampe de chargement — Brun
- Courbes de niveau — Brun
- Courbes de niveau approximatives — Brun
- Courbes de cuvette — Brun
- Falaise — Brun
- Esker — Brun
- Sable; dunes — Brun
- Moraine, éboulis — Brun
- Surface déformée — Brun
- Crevasse glaciaire — Bleu
- Région boisée — Vert
- Verger — Noir & Vert

Military users, refer to this map as: Référence de cette carte pour usage militaire:
SERIES A 751 SÉRIE
MAP 31 D/7 CARTE
EDITION 4-MCE EDITION

GLOSSARY GLOSSAIRE

Airfield	Terrain d'aviation
Arena	Aréna
City Limits	Limites de ville
Customs	Douanes
Ditch	Fossé
Dugout	Abreuvoir
Dump	Dépotoir
Filtration Plant	Usine de filtration
Gas	Gaz
Golf Course	Terrain de golf
Junk Yard	Ferraille
Kiln	Four
Lookout	Belvédère
Mine Waste	Déblai de mine
Oil Wells	Puits de pétrole
Park	Parc
Rink	Patinoire
Senior Citizens Home	Foyer de l'âge d'or
Ski Area	Station de ski
String Bog	Fondrière à filaments
Surveyed Line	Ligne arpentée
Tank	Réservoir
Water	Eau
Winter Road	Chemin d'hiver

ABBREVIATIONS ABRÉVIATIONS

Aband.	Abandoned	Abandonné, ée
C.	Cemetery	Cimetière
CO	County	Comté
E	Elevator	Élévateur
Fy	Ferry	Traversier
IR	Indian Reserve	Réserve indienne
H	Hospital	Hôpital
L	Lot	Lot
Micro.	Microwave	Micro-ondes
Mun.	Municipality	Municipalité
P	Post Office	Bureau de poste
PH	Power House	Centrale électrique
RCMP	Royal Canadian Mounted Police	Gendarmerie Royale Canadienne
Res.	Reservoir	Réservoir
Trans Sta	Transformer Station	Poste de transformateurs
TFL	Tree Farm Licence	Licence de sylviculture

Produced by the SURVEYS AND MAPPING BRANCH, DEPARTMENT OF ENERGY, MINES AND RESOURCES. Updated from aerial photographs taken in 1976. Culture check 1976. Information current as of 1976.

Copies may be obtained from the Canada Map Office, Department of Energy, Mines and Resources, Ottawa, or your nearest map dealer.

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Roads: Routes:

hard surface, all weather	pavée, toute saison	dual highway 2 chaussées séparées 2 lanes 2 voies; more than 2 lanes plus de 2 voies
hard surface, all weather	pavée, toute saison	less than 2 lanes, mostly 2 lanes moins de 2 voies, surtout 2 voies
loose or stabilized surface, all weather	gravier, aggloméré, toute saison	2 lanes or more 2 voies et plus; less than 2 lanes moins de 2 voies
loose surface, dry weather	de gravier, temps sec	
unclassified streets	rues hors classe	
cart track	de terre	
trail, cut line or portage	sentier, percée ou portage	

FOR COMPLETE REFERENCE SEE REVERSE SIDE POUR UNE LISTE COMPLÈTE DES SIGNES, VOIR AU VERSO

LINDSAY
ONTARIO

Scale 1:50,000 Échelle

Miles 1 0 1 2 3 Milles
Metres 1000 0 1000 2000 3000 4000 Mètres
Yards 1000 0 1000 2000 3000 4000 Verges

CONVERSION SCALE FOR ELEVATIONS ÉCHELLE DE CONVERSION DES ÉLÉVATIONS

Metres 30 20 10 0 50 100 150 200 250 300 Mètres
Feet 100 50 0 100 200 300 400 500 600 700 800 900 1000 Pieds

CONTOUR INTERVAL 25 FEET
Elevations in Feet above Mean Sea Level
North American Datum 1927
Transverse Mercator Projection

ÉQUIDISTANCE DES COURBES 25 PIEDS
Élévations en pieds au-dessus du niveau moyen de la mer
Système de référence géodésique nord-américain, 1927
Projection transverse de Mercator

Établi par la DIRECTION DES LEVÉS ET DE LA CARTOGRAPHIE, MINISTÈRE DE L'ÉNERGIE, DES MINES ET DES RESSOURCES. Mise à jour à l'aide de photographies aériennes prises en 1976. Vérification des ouvrages en 1976. Renseignements à jour en 1976.

Ces cartes sont en vente au Bureau des Cartes du Canada, ministère de l'Énergie, des Mines et des Ressources, Ottawa, ou chez le vendeur le plus près.

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ONE THOUSAND METRE
UNIVERSAL TRANSVERSE MERCATOR GRID
ZONE 17
QUADRILLAGE DE MILLE MÈTRES
TRANSVERSE UNIVERSEL DE MERCATOR

GRID ZONE DESIGNATION DÉSIGNATION DE LA ZONE DU QUADRILLAGE: 17 T

100,000 M. SQUARE IDENTIFICATION IDENTIFICATION DU CARRÉ DE 100,000 M: Pv

EXAMPLE OF METHOD USED TO GIVE A REFERENCE TO NEAREST 100 METRES
EXEMPLE DE LA MÉTHODE EMPLOYÉE POUR FIXER DES REPÈRES À 100 MÈTRES PRÈS



REFERENCE POINT CHURCH - ÉGLISE (as above) (ci-dessus)
POINT DE REPÈRE

EASTING: Read number on grid line immediately to left of point.
LONGITUDE EST: Noter le chiffre de la ligne du quadrillage immédiatement à gauche du repère: 97
Estimate tenths of a square from this line eastward to point.
Estimer le nombre de dixièmes du carré entre cette ligne et le repère en direction est: 5
975

NORTHING: Read number on grid line immediately below point.
LATITUDE NORD: Noter le chiffre de la ligne du quadrillage immédiatement en dessous du repère: 98
Estimate tenths of a square from this line northward to point.
Estimer le nombre de dixièmes du carré entre cette ligne et le repère en direction nord: 4
GRID REFERENCE. 964
RÉFÉRENCE AU QUADRILLAGE. 975984

Nearest similar grid reference 100,000 metres (about 62 miles)
La prochaine référence similaire est à 100,000 mètres (environ 62 milles).

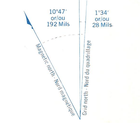


TABLEAU D'ASSEMBLAGE DU SYSTÈME NATIONAL DE RÉFÉRENCE CARTOGRAPHIQUE



INDEX TO ADJOINING MAPS OF THE NATIONAL TOPOGRAPHIC SYSTEM

LINDSAY
31 D/7
EDITION 4

CONVENTIONAL SIGNS

(Black unless otherwise stated)

- Dual highway
- Road, hard surface, all weather, more than 2 lanes — Red
- Road, hard surface, all weather, 2 lanes — Red
- Road, hard surface, all weather, less than 2 lanes — Red
- Road, loose or stabilized surface, all weather, 2 lanes or more — Orange
- Road, loose or stabilized surface, all weather, less than 2 lanes — Orange
- Road, loose surface, dry weather — Orange
- Unclassified streets — Orange
- Cart track or winter road
- Trail, cut line or portage
- Road under construction — Orange or red
- Highway interchange with number; traffic circle — 42 — Red
- Highway route marker — 5 — Orange or red
- Built up area — Red screen
- Railway, single track
- Railway, multiple track
- Railway, narrow gauge
- Railway, abandoned
- Railway station; stop; turntable
- Bridge; footbridge
- Bridge; swing, draw, lift
- Tunnel
- Ferry
- Ford
- Navigation light
- Seaplane base; seaplane anchorage
- Vessel anchorage: large, small
- House; barn; large building
- Church; school
- Post office; telegraph office
- Elevator; greenhouse — E — T
- Cemetery; historic site; historic battlefield — C
- Tower, chimney, similar objects
- Windmill or windpump
- Sewage disposal; filtration bed — Black & Blue
- Well; water — Blue
- Well: oil, gas
- Tank: oil, gasoline, water
- Gasometer
- Pipeline with control valve
- Pipeline: above ground, underground
- Telephone line
- Power transmission line
- Campsite; picnic site
- Sports track
- Retaining wall: large, small
- Mine
- Gravel or sand pit; quarry
- Dyke; fence
- Cutting; embankment
- International boundary with monument — Red screen
- Province, territory, or state boundary
- County or district boundary
- Township, parish boundary
- Township boundary, unsurveyed
- City, town, settlement boundary
- Reserve, park boundary
- Section line
- Surveyed line, lot line
- Horizontal control point
- Bench mark with elevation — 1475
- Spot elevation: precise, non-precise — •3520 — •2247 — Brown
- Water elevation: precise, non-precise — 3520± — 2247± — Brown
- Stream or shoreline, indefinite — Blue
- Irrigation canal, drain, ditch — Blue
- Direction of flow — Blue
- Lake intermittent, slough — Blue
- Flooded land; inundated land, seasonal — Blue
- Marsh or swamp — Blue
- Dry river bed with channels — Blue & Brown
- String bog — Blue
- Tundra ponds; tundra polygons — Blue
- Falls — Blue
- Rapids — Blue
- Reservoir, dugout, swimming pool — Blue
- Foreshore flats — Brown
- Submerged reef — Brown
- Rocks — Brown
- Rocky ledge, rocky reef — Brown
- Dams: small, large — Brown
- Locks: small, large — Brown
- Wharf, breakwater, pier, dock; seawall — Brown
- Ferry slip; dry dock; ramp — Brown
- Contours — Brown
- Approximate contours — Brown
- Depression contours — Brown
- Cliff — Brown
- Esker — Brown
- Sand; sand dunes — Brown
- Moraine, scree — Brown
- Glacial crevasse — Blue
- Wooded area — Green
- Orchard — Green
- Vineyard, hop field — Green

GLOSSARY

A

- Abandoned — Abandonné, ée
- Aerial Cableway — Téléphérique
- Agricultural Research Station — Station de recherches agricoles
- Air Beacon — Aérophare
- Airfield — Terrain d'aviation
- Airport — Aéroport
- Airport Limits — Limites d'aéroport
- Alkali — Alcali
- Amusement Park — Parc d'attractions
- Animal Farm — Ferme d'animaux
- Animal Research Farm — Ferme de recherche animale
- Aqueduct (underground) — Aqueduc (souterrain)
- Arena — Aréna
- Armoury — Manège militaire
- Ash Disposal Lagoon — Dépôt lagunaire de cendres
- Asphalt Plant — Usine d'asphalte
- Auto Depot — Cour d'automobiles
- Automobile Plant — Usine d'automobiles

B

- Ball Park — Terrain de baseball
- Ballast Pit — Ballastière
- Barrier — Barrière
- Bible Camp — Colonie biblique
- Bird Sanctuary — Sanctuaire d'oiseaux
- Boat House — Hangar à bateaux
- Boom Piers — Jetées d'estacade
- Boys Camp — Colonie de vacances pour garçons
- Boy Scout Camp — Camp de scouts
- Brewery — Brasserie
- Brick Factory — Briqueterie
- Brick Plant — Briqueterie
- Brick Yard — Dépôt de briques
- Bunker — Soute
- Burner — Brûleur
- Butts — Buttes

C

- Cabin — Cabine
- Cable Car Crossing — Croisement de tramways
- Cable House — Station de téléphérique
- Cannery — Conserverie
- Cattle Feeder Station — Poste d'alimentation du bétail
- Causeway — Chaussée
- Cave — Caverne
- Cement Plant — Usine de ciment
- Cemetery — Cimetière
- Chair Lift — Télésiège
- Cheese Factory — Fromagerie
- Chemical Plant — Usine de produits chimiques
- Chimney — Cheminée
- Church Camp — Colonie d'appartenance religieuse
- Cinema — Cinéma
- City Hall — Hôtel de ville
- City Limits — Limites de ville
- Clay Pit — Glaisière
- Coke Plant — Usine de coke
- Community Centre — Centre communautaire
- Community Hall — Salle communautaire
- Compressor Station — Station de compression
- Concrete Plant — Usine de béton
- Conservation Area — Zone de conservation
- Conservation Park — Parc de conservation
- Control Dam — Barrage de régulation
- Control Gate — Barrière de contrôle
- Control Tower — Tour de contrôle
- Convent — Couvent
- Conveyor — Convoyeur
- Correctional Institute — Institut de réhabilitation
- Court House — Palais de justice
- Covered Bridge — Pont couvert
- Crane — Grue
- Crib — Caisson
- Cricket Club — Club de cricket
- Crippled Childrens Camp — Colonie d'enfants handicapés
- Crushing Plant — Installation de broyage
- Curling Club — Club de curling
- Customs — Douane

D

- Department of National Defence — Ministère de la Défense Nationale
- Detention Home — Maison de détention
- Disposal Area — Décharge
- Disposal Bed — Lit d'épuration
- Distillery — Distillerie
- Ditch — Fossé
- DND — MDN
- Dolphin(s) — Pieu(x) d'amarrage
- Drawbridge — Pont roulant
- Driver Training Centre — Centre de formation des automobilistes
- Dugout — Abreuvoir
- Dump — Dépotoir

E

- Electronics Plant — Usine de matériel électronique
- Elevator — Élévateur
- Equestrian Centre — Centre équestre
- Exhibition Grounds — Terrain d'exposition
- Experimental Farm — Ferme expérimentale
- Exposed Wreck — Épave visible

F

- Factory — Fabrique
- Fairgrounds — Champ de foire
- Feed Mill — Moulin à grain de provende
- Ferry — Traversier
- Fertilizer Plant — Usine d'engrais
- Fiberglass Plant — Usine de fibre de verre
- Filtration Bed — Lit de filtration
- Filtration Plant — Usine de filtration
- Fire — Feu
- Fire Guard — Coupe-feu
- Firing Range — Zone de tir
- First Aid Post — Poste de premiers soins
- Fish Hatchery — Centre de pisciculture
- Fish Ladder — Échelle à poissons
- Fish Packing Plant — Usine de mise en baril du poisson
- Flour Mill — Moulin à farine
- Flume — Canal d'amenée
- Ford — Gué
- Foundry — Fonderie
- Fur Farm — Animaux à fourrures
- Furniture Factory — Fabrique de meubles

G

- Game Bird Farm — Élevage d'oiseaux pour la chasse
- Game Preserve — Parc à gibier
- Game Reserve — Réserve de gibier
- Garment Factory — Fabrique de vêtements
- Gas — Gaz
- Gas Field Limits — Limites de champ de gaz
- Gas Pipeline — Gazoduc
- Gas Plant — Usine de gaz
- Gas Pumping Station — Station de pompage de gaz
- Gas Wells — Puits de gaz
- Gate — Barrière
- Gauging Station — Station d'enrégistrement du niveau de l'eau
- Girl Guide Camp — Camp de guides
- Girls Camp — Colonie de vacances pour jeunes filles
- Glass Factory — Verrerie
- Glider Club — Club de planeur
- Go-cart Track — Piste de karting
- Golf Course — Terrain de golf
- Golf Range — Pratique de golf
- Granite Plant — Usine de granit
- Grist Mill — Meunerie
- Gun Club — Club de tir
- Gypsum Plant — Usine de gypse

H

- Hall — Salle
- Health Camp — Colonie de plein air
- Heliport — Héliport
- Hopper — Trémie
- Hops — Houblon
- Hospital — Hôpital

I

- Icefield — Champ de glace
- Ice Shelf — Corniche de glace
- Illuminated Cross — Croix illuminée
- Indian Summer Camp — Camp d'été des indiens
- Indian Village — Village indien
- Industrial Centre — Centre industriel
- Iron Works — Ferronnerie

J

- Jail — Prison
- Junk Yard — Ferraille

K

- Kelp — Varech
- Kiln — Four
- Knitting Mill — Filature

L

- Lift — Levant
- Log Chute — Glissoire de billots
- Lookout — Belvédère
- Lumber Camp — Camp de bûcherons
- Lumber Depot — Dépôt de bois
- Lumber Mill — Scierie
- Lumber Yard — Cour à bois

M

- Marine — Marin
- Medical Centre — Centre médical
- Meter Station — Station de comptage
- Metis Colony — Colonie de métis
- Microwave — Micro-ondes
- Mile Post — Borne milliaire
- Mine Dump — Halde
- Mine Waste — Déblai de mine
- Monastery — Monastère
- Municipal Hall — Salle municipale
- Museum — Musée

N

- Nature Camp — Camp de naturalistes
- Nursing Home — Maison de repos

O

- Observatory — Observatoire
- Oil — Pétrole
- Oil Pipeline — Oléoduc
- Oil Refinery — Raffinerie de pétrole
- Oil Wells — Puits de pétrole
- Open Pit — Fosse à ciel ouvert
- Oratory — Oratoire
- Orphanage — Orphelinat

P

- Packing Plant — Usine d'empaquetage
- Paint Works — Fabrique de peinture
- Palsa Bog — Fondrière de palse
- Paper Mill — Papeterie
- Park — Parc
- Parliament Buildings — Édifices du Parlement
- Peat Bog — Tourbage
- Peat Cutting — Tourbière
- Peat Plant — Établissement de transformation de la tourbe
- Penitentiary — Pénitencier
- Penstock — Conduite forcée
- Pile — Pieu
- Plant — Usine
- Plastic Factory — Manufacture de plastiques
- Pollution Sensing Tower — Tour de détection de la pollution
- Position Approximate — Position approximative
- Poultry Farm — Ferme avicole
- Power House — Centrale électrique
- Private — Privé, ée
- Private Road — Route privée
- Proposed — Projeté, ée
- Pulp Mill — Usine de pâte à papier
- Pumphouse — Usine de pompage
- Pumping Station — Station de pompage

R

- Radio Telescope — Télescope radioguidé
- Raised Beaches — Plages surélevées
- Ranger Station — Poste de garde
- R C M P — G R C
- Recreation Centre — Centre récréatif
- Refinery — Raffinerie
- Rehabilitation Centre — Centre de réadaptation
- Religious Camp — Colonie religieuse
- Religious Colony — Colonie religieuse
- Research Station — Station de recherches
- Reservoir — Réservoir
- Residue Pond — Étang de résidu
- Rifle Range — Champ de tir
- Rink — Patinoire
- Roundhouse — Rotonde
- Ruins — Ruines

S

- Salt — Sel
- Salt Domes — Remises de sel
- Sand Domes — Remises de sable
- Sand Hills — Collines de sable
- Satellite Tracking Station — Station de détection de satellites
- Sawmill — Scierie
- Seed Processing Plant — Usine de traitement de la semence
- Seminary — Séminaire
- Senior Citizens Home — Foyer de l'âge d'or
- Service Centre — Centre de service
- Settling Pond — Étang de sédimentation
- Settling Tank — Réservoir de sédimentation
- Sewage — Égout
- Sewage Pipeline — Tuyau d'égout
- Sewage Pumping Station — Station de pompage des eaux d'égout
- Shipyard — Chantier naval
- Shopping Centre — Centre commercial
- Shrine — Chapelle
- Sink Hole — Puits d'écoulement
- Skeet Club — Club de tir aux pigeons
- Skeet Range — Champ de tir aux pigeons
- Ski Area — Station de ski
- Ski Club — Club de ski
- Ski Jump — Saut de ski
- Ski Lift — Téléski
- Ski Lodge — Chalet de ski
- Ski Tow — Télésiège
- Slag Heap — Crassier
- Sluice — Canal de décharge
- Sluice Gate — Vanne
- Snowshed — Paraneige
- Space Research Institute — Institut de recherche spaciale
- Spillway — Déversoir
- Sportsplex — Centre sportif
- Spring — Source
- Stadium — Stade
- Stand Pipe — Château d'eau
- Steam Power House — Centrale à vapeur
- Steel Mill — Usine sidérurgique
- Stockpile — Réserves
- Stockyards — Parc à bestiaux
- String Bog — Fondrière à filaments
- Strip Mine — Mine à ciel ouvert
- Sub Station — Sous-station
- Submarine Cable — Câble sous-marin
- Sugar Camp — Sucrerie
- Summer Camp — Camp d'été
- Sunken Wreck — Épave submergée
- Surge Pipe — Tuyau de déversement
- Surge Tank — Réservoir d'équilibre
- Surveyed Line — Ligne arpentée
- Suspension — Suspendu
- Swing — Pivotant

T

- Tailrace — Canal d'aval
- Tanks — Réservoirs
- Telecommunication — Télécommunication
- Television — Télévision
- Textile Mill — Usine de textile
- Tile Factory — Fabrique de tuiles
- Tobacco Plant — Manufacture de tabac
- Toll — Péage
- Town Hall — Hôtel de ville
- Town Limits — Limites de ville
- Township Hall — Bureau administratif de township
- Trading Post — Poste de traite
- Trailer Factory — Usine de roulottes
- Trailer Park — Parc de roulottes
- Transformer Station — Poste de transformateurs
- Tree Nursery — Pépinière
- Trout Farm — Centre d'élevage de truites

U

- Under Construction — En construction
- Underground Reservoir — Réservoir souterrain
- Underground Stream — Cours d'eau souterrain
- University — Université
- University Grounds — Terrains de l'université

V

- Valve Station — Poste de valve
- Vehicle Testing Track — Piste d'essai de véhicules
- Village Limits — Limites de village

W

- Wall — Mur
- Warden's Station — Station du gardien
- Waste — Déchets
- Water — Eau
- Watermill — Moulin à eau
- Water Pipeline — Conduite d'eau
- Water Pollution Control — Contrôle de la pollution de l'eau
- Water Pumping Station — Station de pompage des eaux
- Water Purification Plant — Usine de filtration des eaux
- Water Treatment Plant — Usine d'épuration des eaux
- Weigh Scale — Balance
- Weir — Barrage-déversoir
- Wildlife Park — Parc de la faune
- Wildlife Sanctuary — Sanctuaire de la faune
- Windmill — Moulin à vent
- Windpump — Pompe éolienne
- Winery — Producteur de vin
- Winter Road — Chemin d'hiver

Y

- Yacht Club — Club de yacht
- Y M C A Camp — Camp Y M C A
- Youth Hostel — Auberge de jeunesse

Z

- Zoological Gardens — Jardins zoologiques

GLOSSAIRE

A

- Abandonné, ée — Abandoned
- Abreuvoir — Dugout
- Aérophare — Air Beacon
- Aéroport — Airport
- Alcali — Alkali
- Animaux à fourrures — Fur Farm
- Aqueduc (souterrain) — Aqueduct (underground)
- Aréna — Arena
- Auberge de jeunesse — Youth Hostel

B

- Balance — Weigh Scale
- Ballastière — Ballast Pit
- Barrage de régulation — Control Dam
- Barrage-déversoir — Weir
- Barrière — Barrier, Gate
- Barrière de contrôle — Control Gate
- Belvédère — Lookout
- Borne milliaire — Mile Post
- Brasserie — Brewery
- Briqueterie — Brick Factory, Brick Plant
- Brûleur — Burner
- Bureau administratif de township — Township Hall
- Buttes — Butts

C

- Cabine — Cabin
- Câble sous-marin — Submarine Cable
- Caisson — Crib
- Camp de bûcherons — Lumber Camp
- Camp de guides — Girl Guide Camp
- Camp de naturalistes — Nature Camp
- Camp de scouts — Boy Scout Camp
- Camp d'été — Summer Camp
- Camp d'été des indiens — Indian Summer Camp
- Camp Y M C A — Y M C A Camp
- Canal d'amenée — Flume
- Canal d'aval — Tailrace
- Canal de décharge — Sluice
- Caverne — Cave
- Centrale à vapeur — Steam Power House
- Centrale électrique — Power House
- Centre commercial — Shopping Centre
- Centre communautaire — Community Centre
- Centre de formation des automobilistes — Driver Training Centre
- Centre d'élevage de truites — Trout Farm
- Centre de pisciculture — Fish Hatchery
- Centre de réadaptation — Rehabilitation Centre
- Centre de service — Service Centre
- Centre équestre — Equestrian Centre
- Centre industriel — Industrial Centre
- Centre médical — Medical Centre
- Centre récréatif — Recreation Centre
- Centre sportif — Sportsplex
- Chalet de ski — Ski Lodge
- Chapelle — Shrine
- Champ de foire — Fairgrounds
- Champ de glace — Icefield
- Champ de tir — Rifle Range
- Champ de tir aux pigeons — Skeet Range
- Chantier Naval — Shipyard
- Château d'eau — Stand Pipe
- Chaussée — Causeway
- Chemin d'hiver — Winter Road
- Cheminée — Chimney
- Cimetière — Cemetery
- Cinéma — Cinema
- Club de cricket — Cricket Club
- Club de curling — Curling Club
- Club de planeur — Glider Club
- Club de ski — Ski Club
- Club de tir — Gun Club
- Club de tir aux pigeons — Skeet Club
- Club de yacht — Yacht Club
- Collines de sable — Sand Hills
- Colonie biblique — Bible Camp
- Colonie d'appartenance religieuse — Church Camp
- Colonie de vacances pour jeunes filles — Girls Camp
- Colonie de métis — Metis Colony
- Colonie d'enfants handicapés — Crippled Childrens Camp
- Colonie de plein air — Health Camp
- Colonie de vacances pour garcons — Boys Camp
- Colonie religieuse — Religious Colony, Religious Camp
- Conduite d'eau — Water Pipeline
- Conduite forcée — Penstock
- Conserverie — Cannery
- Contrôle de la pollution de l'eau — Water Pollution Control
- Convoyeur — Conveyor
- Corniche de glace — Ice Shelf
- Coupe-feu — Fire Guard
- Cour à bois — Lumber Yard
- Cour d'automobiles — Auto Depot
- Cours d'eau souterrain — Underground Stream
- Couvent — Convent
- Crassier — Slag Heap
- Croisement de tramways — Cable Car Crossing
- Croix illuminée — Illuminated Cross

D

- Déblai de mine — Mine Waste
- Décharge — Disposal Area
- Déchets — Waste
- Dépôt de bois — Lumber Depot
- Dépôt de briques — Brick Yard
- Dépôt lagunaire de cendres — Ash Disposal Lagoon
- Dépotoir — Dump
- Déversoir — Spillway
- Distillerie — Distillery
- Douane — Customs

E

- Eau — Water
- Échelle à poissons — Fish Ladder
- Édifices du Parlement — Parliament Buildings
- Égout — Sewage
- Élevage d'oiseaux pour la chasse — Game Bird Farm
- Élévateur — Elevator
- En construction — Under construction
- Épave submergée — Sunken Wreck
- Épave visible — Exposed Wreck
- Établissement de transformation de la tourbe — Peat Plant
- Étang de résidu — Residue Pond
- Étang de sédimentation — Settling Pond

F

- Fabrique — Factory
- Fabrique de meubles — Furniture Factory
- Fabrique de peinture — Paint Works
- Fabrique de tuiles — Tile Factory
- Fabrique de vêtements — Garment Factory
- Ferme avicole — Poultry Farm
- Ferme d'animaux — Animal Farm
- Ferme de recherche animale — Animal Research Farm
- Ferme expérimentale — Experimental Farm
- Ferraille — Junk Yard
- Ferronnerie — Iron Works
- Feu — Fire
- Filature — Knitting Mill
- Fonderie — Foundry
- Fondrière à filaments — String Bog
- Fondrière de palse — Palsa Bog
- Fossé — Ditch
- Fosse à ciel ouvert — Open Pit
- Four — Kiln
- Foyer de l'âge d'or — Senior Citizens Home
- Fromagerie — Cheese Factory

G

- Gaz — Gas
- Gazoduc — Gas Pipeline
- Glaisière — Clay Pit
- Glissoire de billots — Log Chute
- G R C — R C M P
- Grue — Crane
- Gué — Ford

H

- Halde — Mine Dump
- Hangar à bateaux — Boat House
- Héliport — Heliport
- Hôpital — Hospital
- Hôtel de ville — City Hall, Town Hall
- Houblon — Hops

I

- Installation de broyage — Crushing Plant
- Institut de recherche spaciale — Space Research Institute
- Institut de réhabilitation — Correctional Institute

J

- Jardins zoologiques — Zoological Gardens
- Jetées d'estacade — Boom Piers

L

- Levant — Lift
- Ligne arpentée — Surveyed Line
- Limites d'aéroport — Airport Limits
- Limites de champ de gaz — Gas Field Limits
- Limites de village — Village Limits
- Limites de ville — City Limits, Town Limits
- Lit de filtration — Filtration Bed
- Lit d'épuration — Disposal Bed

M

- Maison de détention — Detention Home
- Maison de repos — Nursing Home
- Manège militaire — Armoury
- Manufacture de plastiques — Plastic Factory
- Manufacture de tabac — Tobacco Plant
- Marin — Marine
- MDN — DND
- Meunerie — Grist Mill
- Micro-ondes — Microwave
- Mine à ciel ouvert — Strip Mine
- Ministère de la Défense Nationale — Department of National Defence
- Monastère — Monastery
- Moulin à eau — Watermill
- Moulin à farine — Flour Mill
- Moulin à grain de provende — Feed Mill
- Moulin à vent — Windmill
- Mur — Wall
- Musée — Museum

O

- Observatoire — Observatory
- Oléoduc — Oil Pipeline
- Oratoire — Oratory
- Orphelinat — Orphanage

P

- Palais de justice — Court House
- Papeterie — Paper Mill
- Paraneige — Snowshed
- Parc — Park
- Parc à bestiaux — Stockyards
- Parc à gibier — Game Preserve
- Parc d'attractions — Amusement Park
- Parc de conservation — Conservation Park
- Parc de la faune — Wildlife Park
- Parc de roulottes — Trailer Park
- Patinoire — Rink
- Péage — Toll
- Pénitencier — Penitentiary
- Pépinière — Tree Nursery
- Pétrole — Oil
- Pieu — Pile
- Pieu (x) d'amarrage — Dolphin (s)
- Piste de karting — Go-cart Track
- Piste d'essai de véhicules — Vehicle Testing Track
- Pivotant — Swing
- Plages surélevées — Raised Beaches
- Pompe éolienne — Windpump
- Pont couvert — Covered Bridge
- Pont roulant — Drawbridge
- Position approximative — Position Approximate
- Poste d'alimentation du bétail — Cattle Feeder Station
- Poste de garde — Ranger Station
- Poste de premiers soins — First Aid Post
- Poste de traite — Trading Post
- Poste de transformateurs — Transformer Station
- Poste de valve — Valve Station
- Pratique de golf — Golf Range
- Prison — Jail
- Privé, ée — Private
- Producteur de vin — Winery
- Projeté, ée — Proposed
- Puits d'écoulement — Sink Hole
- Puits de gaz — Gas Wells
- Puits de pétrole — Oil Wells

R

- Raffinerie — Refinery
- Raffinerie de pétrole — Oil Refinery
- Remises de sable — Sand Domes
- Remises de sel — Salt Domes
- Réserve de gibier — Game Reserve
- Réserves — Stockpile
- Réservoirs — Reservoirs, Tanks
- Réservoir d'équilibre — Surge Tank
- Réservoir de sédimentation — Settling Tank
- Réservoir souterrain — Underground Reservoir
- Rotonde — Roundhouse
- Route privée — Private Road
- Ruines — Ruins

S

- Salle — Hall
- Salle communautaire — Community Hall
- Salle municipale — Municipal Hall
- Sanctuaire de la faune — Wildlife Sanctuary
- Sanctuaire d'oiseaux — Bird Sanctuary
- Saut de ski — Ski Jump
- Scierie — Lumber Mill, Sawmill
- Sel — Salt
- Séminaire — Seminary
- Source — Spring
- Sous-station — Sub Station
- Soute — Bunker
- Stade — Stadium
- Station de compression — Compressor Station
- Station de comptage — Meter Station
- Station de détection de satellites — Satellite Tracking Station
- Station d'enregistrement du niveau de l'eau — Gauging Station
- Station de pompage — Pumping Station
- Station de pompage de gaz — Gas Pumping Station
- Station de pompage des eaux — Water Pumping Station
- Station de pompage des eaux d'égout — Sewage Pumping Station
- Station de recherches — Research Station
- Station de recherches agricoles — Agricultural Research Station
- Station de ski — Ski Area
- Station du gardien — Warden's Station
- Station de téléphérique — Cable House
- Sucrerie — Sugar Camp
- Suspendu — Suspension

T

- Télécommunication — Telecommunication
- Téléphérique — Aerial Cableway
- Télescope radioguidé — Radio Telescope
- Télésiège — Chair Lift, Ski Tow
- Téléski — Ski Lift
- Télévision — Television
- Terrain d'aviation — Airfield
- Terrain de baseball — Ball Park
- Terrain de golf — Golf Course
- Terrains de l'université — University Grounds
- Terrain d'exposition — Exhibition Grounds
- Tourbage — Peat Bog
- Tourbière — Peat Cutting
- Tour de contrôle — Control Tower
- Tour de détection de la pollution — Pollution Sensing Tower
- Traversier — Ferry
- Trémie — Hopper
- Tuyau de déversement — Surge Pipe
- Tuyau d'égout — Sewage Pipeline

U

- Université — University
- Usine — Plant
- Usine d'asphalte — Asphalt Plant
- Usine d'automobiles — Automobile Plant
- Usine de béton — Concrete Plant
- Usine de ciment — Cement Plant
- Usine de coke — Coke Plant
- Usine de fibre de verre — Fiberglass Plant
- Usine de filtration — Filtration Plant
- Usine de filtration des eaux — Water Purification Plant
- Usine de gaz — Gas Plant
- Usine de granit — Granite Plant
- Usine de gypse — Gypsum Plant
- Usine de matériel électronique — Electronics Plant
- Usine de mise en baril du poisson — Fish Packing Plant
- Usine d'empaquetage — Packing Plant
- Usine d'engrais — Fertilizer Plant
- Usine de pâte à papier — Pulp Mill
- Usine de pompage — Pumphouse
- Usine de produits chimiques — Chemical Plant
- Usine d'épuration des eaux — Water Treatment Plant
- Usine de roulottes — Trailer Factory
- Usine de textile — Textile Mill
- Usine de traitement de la semence — Seed Processing Plant
- Usine sidérurgique — Steel Mill

V

- Vanne — Sluice Gate
- Varech — Kelp
- Verrerie — Glass Factory
- Village indien — Indian Village

Z

- Zone de conservation — Conservation Area
- Zone de tir — Firing Range

SIGNES CONVENTIONNELS

(Noir à moins d'indication contraire)

- Route à deux chaussées séparées
- Route pavée, toutes saisons, plus de 2 voies — Rouge
- Route pavée, toutes saisons, 2 voies — Rouge
- Route pavée, toutes saisons, moins de 2 voies — Rouge
- Route de gravier ou surface durcie, toutes saisons, 2 voies ou plus — Orange
- Route de gravier ou surface durcie, toutes saisons, moins de 2 voies — Orange
- Route de gravier, temps sec — Orange
- Rues hors classe — Orange
- Chemin de terre ou d'hiver
- Sentier, percée ou portage
- Route en construction — Orange ou rouge
- Échangeur avec numéro; rond-point — 42 — Rouge
- Signalisation routière — 5 — Orange ou rouge
- Agglomération — Trame rouge
- Chemin de fer, voie unique
- Chemin de fer, voies multiples
- Chemin de fer, voie étroite
- Chemin de fer abandonné
- Gare; arrêt sur signal; plaque tournante
- Pont; passerelle
- Pont mobile: pivotant, roulant, levant
- Tunnel
- Traversier
- Gué
- Feu de navigation
- Base d'hydravions; ancrage d'hydravions
- Ancrage pour gros navires; petits navires
- Maison; grange; grand bâtiment
- Église; école — E — T
- Bureau de poste; bureau de télégraphe
- Élévateur; serre — E — T
- Cimetière; lieu historique; champ de bataille historique — C
- Tour, cheminée, constructions semblables
- Moulin à vent, pompe éolienne
- Lit d'épuration des eaux d'égout, lit de filtration — Noir & Bleu
- Puits d'eau — Bleu
- Puits: pétrole, gaz
- Réservoir: pétrole, essence, eau
- Gazomètre
- Pipeline avec valve de contrôle
- Pipeline sur terre; sous terre
- Ligne téléphonique
- Ligne de transport d'énergie
- Terrain de camping; terrain de pique-nique
- Piste de sports
- Mur de soutènement: grand, petit
- Mine
- Gravière ou sablière; carrière
- Digue; clôture
- Déblai; remblai
- Frontière internationale avec bornes-repères — Trame rouge
- Limite de province, de territoire, ou d'état
- Limite de comté ou de district
- Limite de township ou canton, de paroisse
- Limite de township ou canton non arpentée
- Limite de cité, ville, établissement
- Limite de réserve, de parc
- Ligne de section
- Ligne arpentée, ligne de lot
- Repère planimétrique — △
- Repère de nivellement avec cote — 1475
- Point coté: précis, imprécis — •3520 — •2247 — Brun
- Altitude de la surface de l'eau: précise, imprécise — 3520± — 2247± — Brun
- Cours d'eau ou rive; imprécis — Bleu
- Canal d'irrigation, de décharge, fossé — Bleu
- Direction du courant — Bleu
- Lac intermittent, bourbier — Bleu
- Terrain inondé, inondé en saison — Bleu
- Marais ou marécage — Bleu
- Lit de cours d'eau tari avec chenaux — Bleu & Brun
- Fondrière à filaments — Bleu
- Étangs de toundra; polygones de toundra — Bleu
- Chutes — Bleu
- Rapides — Bleu
- Réservoir, abreuvoir, piscine — Bleu
- Estrans — Brun
- Récif submergé — Brun
- Roches — Brun
- Barre rocheuse, récif rocheux — Brun
- Barrages: petits, grands — Brun
- Écluses: petites, grandes — Brun
- Quai, brise-lame, jetée, bassin; mur de protection — Brun
- Cale pour traversier; cale sèche; rampe de chargement — Brun
- Courbes de niveau — Brun
- Courbes de niveau approximatives — Brun
- Courbes de cuvette — Brun
- Falaise — Brun
- Esker — Brun
- Sable; dunes — Brun
- Moraine, éboulis — Brun
- Crevasse glaciaire — Bleu
- Région boisée — Vert
- Verger — Vert
- Vignoble, houblonnière — Vert

CANADA

31 D/4 | 1:50,000 | EDITION 6 | 31 D/4

Military users, refer to this map as... Référence de cette carte, pour usage militaire: SERIES A 751 SÉRIE · MAP 31 D/4 CARTE · EDITION 6 MCE ÉDITION

GLOSSARY GLOSSAIRE

Airfield	Terrain d'aviation
Arena	Aréna
City Limits	Limites de ville
Customs	Douane
Ditch	Fossé
Dugout	Abreuvoir
Dump	Dépotoir
Filtration Plant	Usine de filtration
Gas	Gaz
Golf Course	Terrain de golf
Junk Yard	Ferraille
Kiln	Four
Lookout	Belvédère
Mine Waste	Débris de mine
Oil Wells	Puits de pétrole
Park	Parc
Rink	Patinoire
Senior Citizens Home	Foyer de l'âge d'or
Ski Area	Station de ski
Strong Beg	Fondrière à filaments
Surveyed Line	Ligne arpentée
Tank	Réservoir
Water	Eau
Winter Road	Chemin d'hiver

For a complete glossary see reverse side
Pour un glossaire complet, voir au verso

ABBREVIATIONS ABRÉVIATIONS

Aband	Abandoned	Abandonné, ée
C	Cemetery	Cimetière
CO	County	Comté
E	Elevator	Elevateur
Fy	Ferry	Traversier
IR	Indian Reserve	Réserve indienne
H	Hospital	Hôpital
L	Lot	Lot
Micro	Microwave	Micro-ondes
Mun	Municipality	Municipalité
P	Post Office	Bureau de poste
PH	Power House	Centrale électrique
RCMP	Royal Canadian Mounted Police	Gendarmerie Royale Canadienne
Res	Reservoir	Réservoir
Trans Sta	Transformer Station	Poste de transformateurs
TFL	Tree Farm Licence	Licence de sylviculture

TN N.A. 8°54' 0°52' 158 Mils 15 Mils — Grid north / Nord du quadrillage — Magnetic north / Nord magnétique

Use diagram only to obtain numerical values
APPROXIMATE MEAN DECLINATION 1978
FOR CENTRE OF MAP
Annual change decreasing 1.8'

N'utiliser le diagramme que pour obtenir les valeurs numériques
DÉCLINAISON MOYENNE APPROXIMATIVE
AU CENTRE DE LA CARTE EN 1978
Variation annuelle croissante 1.8'

ONE THOUSAND METRE
UNIVERSAL TRANSVERSE MERCATOR GRID
ZONE 17
QUADRILLAGE DE MILLE MÈTRES
TRANSVERSE UNIVERSEL DE MERCATOR

GRID ZONE DESIGNATION: DÉSIGNATION DE LA ZONE OU QUADRILLAGE: 17 T

100,000 M. SQUARE IDENTIFICATION: IDENTIFICATION DU CARRÉ DE 100,000 M: NU PU 49 6

EXAMPLE OF METHOD USED TO GIVE A REFERENCE TO NEAREST 100 METRES
EXEMPLE DE LA MÉTHODE EMPLOYÉE POUR FIXER DES REPÈRES À 100 MÈTRES PRÈS

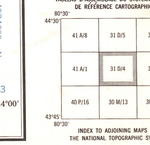


REFERENCE POINT / POINT DE REPÈRE	CHURCH - ÉGLISE	(as above) (ci-dessus)
EASTING. Read number on grid line immediately to left of point. LONGITUDE EST. Noter le chiffre de la ligne du quadrillage immédiatement à gauche du repère:		97
Estimate tenths of a square from this line eastward to point: Estimer le nombre de dixièmes du carré entre cette ligne et le repère en direction est:		5 975
NORTHING. Read number on grid line immediately below point. LATITUDE NORD. Noter le chiffre de la ligne du quadrillage immédiatement en-dessous du repère:		98
Estimate tenths of a square from this line northward to point. Estimer le nombre de dixièmes du carré entre cette ligne et le repère en direction nord:		4 984
GRID REFERENCE / RÉFÉRENCE AU QUADRILLAGE:		975984

Nearest similar grid reference 100,000 metres (about 63 miles)
La prochaine référence similaire est à 100.000 mètres (environ 63 miles)

1 Many trees down
Buildings damaged
2 Antennas, Trees down
3 Hydro towers
4 Trees down NOW

TABLEAU D'ASSEMBLAGE DU SYSTÈME NATIONAL DE RÉFÉRENCE CARTOGRAPHIQUE



INDEX TO ADJOINING MAPS OF THE NATIONAL TOPOGRAPHIC SYSTEM

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Roads: Routes:

		dual highway 2 chaussées séparées 2 lanes 2 voies	more than 2 lanes plus de 2 voies	less than 2 lanes moins de 2 voies	less than 2 lanes moins de 2 voies
hard surface, all weather	pavée, toute saison				
hard surface, all weather	pavée, toute saison				
loose or stabilized surface, all weather	gravier, agglomeré, toute saison				
loose surface, dry weather	de gravier, temps sec				
unclassified streets	rues hors classe				
cart track	de terre				
trail, cut line or portage	sentier, percée ou portage				

FOR COMPLETE REFERENCE SEE REVERSE SIDE — POUR UNE LISTE COMPLÈTE DES SIGNES, VOIR AU VERSO

ALLISTON
ONTARIO

Scale 1:50,000 Échelle

Miles 1 0 1 2 3 Milles
Metres 1000 0 1000 2000 3000 4000 Mètres
Yards 1000 0 1000 2000 3000 4000 Verges

CONVERSION SCALE FOR ELEVATIONS
Metres 30 20 10 0 50 100
Feet 100 50 0 100 200 300 400

CONTOUR INTERVAL 25 FEET
Elevations in Feet above Mean Sea Level
North American Datum 1927
Transverse Mercator Projection

ÉCHELLE DE CONVERSION DES ÉLÉVATIONS
150 200 250 300 Mètres
500 600 700 800 900 1000 Pieds

ÉQUIDISTANCE DES COURBES 25 PIEDS
Élévations en pieds au-dessus du niveau moyen de la mer
Système de référence géodésique nord-américain, 1927
Projection transverse de Mercator

Établie par la DIRECTION DES LEVÉS ET DE LA CARTOGRAPHIE, MINISTÈRE DE L'ÉNERGIE, DES MINES ET DES RESSOURCES. Mise à jour à l'aide de photographies aériennes prises en 1976. Vérification des ouvrages en 1976. Renseignements à jour en 1976.

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ALLISTON
31 D/4
EDITION 6

CONVENTIONAL SIGNS

(Black unless otherwise stated)

Dual highway
Road, hard surface, all weather, more than 2 lanes — Red
Road, hard surface, all weather, 2 lanes — Red
Road, hard surface, all weather, less than 2 lanes — Red
Road, loose or stabilized surface, all weather, 2 lanes or more — Orange
Road, loose or stabilized surface, all weather, less than 2 lanes — Orange
Road, loose surface, dry weather — Orange
Unclassified streets — Orange
Cart track or winter road
Trail, cut line or portage
Road under construction — Orange or red
Highway interchange with number; traffic circle — 62 — Red
Highway route marker — 5 — Orange or red
Built up area — Red screen
Railway, single track
Railway, multiple track
Railway, narrow gauge
Railway, abandoned
Railway station; stop; turntable
Bridge; footbridge
Bridge; swing, draw, lift
Tunnel
Ferry
Ford
Navigation light
Seaplane base; seaplane anchorage
Vessel anchorage: large, small
House; barn; large building
Church; school
Post office; telegraph office
Elevator; greenhouse
Cemetery; historic site; historic battlefield — C
Tower, chimney, similar objects
Windmill or windpump
Sewage disposal, filtration bed — Black & Blue
Well: water — Blue
Well: oil, gas
Tank: oil, gasoline, water
Gasometer
Pipeline with control valve
Pipeline: above ground, underground
Telephone line
Power transmission line
Campsite; picnic site
Sports track
Retaining wall: large, small
Mine
Gravel or sand pit; quarry
Dyke; fence
Cutting; embankment
International boundary with monument — Red screen
Province, territory, or state boundary
County or district boundary
Township, parish boundary
Township boundary, unsurveyed
City, town, settlement boundary
Reserve, park boundary
Section line
Surveyed line, lot line
Horizontal control point
Bench mark with elevation — 1475
Spot elevation: precise, non-precise — •2520 — •2947 — Brown
Water elevation: precise, non-precise — 2520± — 2947± — Brown
Stream or shoreline, indefinite — Blue
Irrigation canal, drain, ditch — Blue
Direction of flow — Blue
Lake intermittent, slough — Blue
Flooded land; inundated land, seasonal — Blue
Marsh or swamp — Blue
Dry river bed with channels — Blue & Brown
String bog — Blue
Tundra ponds; tundra polygons — Blue
Falls — Blue
Rapids — Blue
Reservoir, dugout, swimming pool — Blue
Foreshore flats — Brown
Submerged reef — Brown
Rocks — Brown
Rocky ledge, rocky reef — Brown
Dams: small, large — Brown
Locks: small, large — Brown
Wharf, breakwater, pier, dock; seawall — Brown
Ferry slip; dry dock; ramp — Brown
Contours — Brown
Approximate contours — Brown
Depression contours — Brown
Cliff — Brown
Esker — Brown
Sand; sand dunes — Brown
Moraine, scree — Brown
Glacial crevasse — Blue
Wooded area — Green
Orchard — Green
Vineyard, hop field — Green

GLOSSARY

A

Abandoned — Abandonné, ée
Aerial Cableway — Téléphérique
Agricultural Research Station — Station de recherches agricoles
Air Beacon — Aérophare
Airfield — Terrain d'aviation
Airport — Aéroport
Airport Limits — Limites d'aéroport
Alkali — Alcali
Amusement Park — Parc d'attractions
Animal Farm — Ferme d'animaux
Animal Research Farm — Ferme de recherche animale
Aqueduct (underground) — Aqueduc (souterrain)
Arena — Aréna
Armoury — Manège militaire
Ash Disposal Lagoon — Dépôt lagunaire de cendres
Asphalt Plant — Usine d'asphalte
Auto Depot — Cour d'automobiles
Automobile Plant — Usine d'automobiles

B

Ball Park — Terrain de baseball
Ballast Pit — Ballastière
Barrier — Barrière
Bible Camp — Colonie biblique
Bird Sanctuary — Sanctuaire d'oiseaux
Boat House — Hangar à bateaux
Boom Piers — Jetées d'estacade
Boys Camp — Colonie de vacances pour garçons
Boy Scout Camp — Camp de scouts
Brewery — Brasserie
Brick Factory — Briqueterie
Brick Plant — Briqueterie
Brick Yard — Dépôt de briques
Bunker — Soute
Burner — Brûleur
Butts — Buttes

C

Cabin — Cabine
Cable Car Crossing — Croisement de tramways
Cable House — Station de téléphérique
Cannery — Conserverie
Cattle Feeder Station — Poste d'alimentation du bétail
Causeway — Chaussée
Cave — Caverne
Cement Plant — Usine de ciment
Cemetery — Cimetière
Chair Lift — Télésiège
Cheese Factory — Fromagerie
Chemical Plant — Usine de produits chimiques
Chimney — Cheminée
Church Camp — Colonie d'appartenance religieuse
Cinema — Cinéma
City Hall — Hôtel de ville
City Limits — Limites de ville
Clay Pit — Glaisière
Coke Plant — Usine de coke
Community Centre — Centre communautaire
Community Hall — Salle communautaire
Compressor Station — Station de compression
Concrete Plant — Usine de béton
Conservation Area — Zone de conservation
Conservation Park — Parc de conservation
Control Dam — Barrage de régulation
Control Gate — Barrière de contrôle
Control Tower — Tour de contrôle
Convent — Couvent
Conveyor — Convoyeur
Correctional Institute — Institut de réhabilitation
Court House — Palais de justice
Covered Bridge — Pont couvert
Crane — Grue
Crib — Caisson
Cricket Club — Club de cricket
Crippled Childrens Camp — Colonie d'enfants handicapés
Crushing Plant — Installation de broyage
Curling Club — Club de curling
Customs — Douane

D

Department of National Defence — Ministère de la Défense Nationale
Detention Home — Maison de détention
Disposal Area — Décharge
Disposal Bed — Lit d'épuration
Distillery — Distillerie
Ditch — Fossé
DND — MDN
Dolphin(s) — Pieu(x) d'amarrage
Drawbridge — Pont roulant
Driver Training Centre — Centre de formation des automobilistes
Dugout — Abreuvoir
Dump — Dépotoir

E

Electronics Plant — Usine de matériel électronique
Elevator — Élévateur
Equestrian Centre — Centre équestre
Exhibition Grounds — Terrain d'exposition
Experimental Farm — Ferme expérimentale
Exposed Wreck — Épave visible

F

Factory — Fabrique
Fairgrounds — Champ de foire
Feed Mill — Moulin à grain de provende
Ferry — Traversier
Fertilizer Plant — Usine d'engrais
Fiberglass Plant — Usine de fibre de verre
Filtration Bed — Lit de filtration
Filtration Plant — Usine de filtration
Fire — Feu
Fire Guard — Coupe-feu
Firing Range — Zone de tir
First Aid Post — Poste de premiers soins
Fish Hatchery — Centre de pisciculture
Fish Ladder — Échelle à poissons
Fish Packing Plant — Usine de mise en baril du poisson
Flour Mill — Moulin à farine
Flume — Canal d'amenée
Ford — Gué
Foundry — Fonderie
Fur Farm — Animaux à fourrures
Furniture Factory — Fabrique de meubles

G

Game Bird Farm — Élevage d'oiseaux pour la chasse
Game Preserve — Parc à gibier
Game Reserve — Réserve de gibier
Garment Factory — Fabrique de vêtements
Gas — Gaz
Gas Field Limits — Limites de champ de gaz
Gas Pipeline — Gazoduc
Gas Plant — Usine de gaz
Gas Pumping Station — Station de pompage de gaz
Gas Wells — Puits de gaz
Gate — Barrière
Gauging Station — Station d'enregistrement du niveau de l'eau
Girl Guide Camp — Camp de guides
Girls Camp — Colonie de vacances pour jeunes filles
Glass Factory — Verrerie
Glider Club — Club de planeur
Go-cart Track — Piste de karting
Golf Course — Terrain de golf
Golf Range — Pratique de golf
Granite Plant — Usine de granit
Grist Mill — Meunerie
Gun Club — Club de tir
Gypsum Plant — Usine de gypse

H

Hall — Salle
Health Camp — Colonie de plein air
Heliport — Héliport
Hopper — Trémie
Hops — Houblon
Hospital — Hôpital

I

Icefield — Champ de glace
Ice Shelf — Corniche de glace
Illuminated Cross — Croix illuminée
Indian Summer Camp — Camp d'été des indiens
Indian Village — Village indien
Industrial Centre — Centre industriel
Iron Works — Ferronnerie

J

Jail — Prison
Junk Yard — Ferraille

K

Kelp — Varech
Kiln — Four
Knitting Mill — Filature

L

Lift — Levant
Log Chute — Glissoire de billots
Lookout — Belvédère
Lumber Camp — Camp de bûcherons
Lumber Depot — Dépôt de bois
Lumber Mill — Scierie
Lumber Yard — Cour à bois

M

Marine — Marin
Medical Centre — Centre médical
Meter Station — Station de comptage
Metis Colony — Colonie de métis
Microwave — Micro-ondes
Mile Post — Borne milliaire
Mine Dump — Halde
Mine Waste — Déblai de mine
Monastery — Monastère
Municipal Hall — Salle municipale
Museum — Musée

N

Nature Camp — Camp de naturalistes
Nursing Home — Maison de repos

O

Observatory — Observatoire
Oil — Pétrole
Oil Pipeline — Oléoduc
Oil Refinery — Raffinerie de pétrole
Oil Wells — Puits de pétrole
Open Pit — Fosse à ciel ouvert
Oratory — Oratoire
Orphanage — Orphelinat

P

Packing Plant — Usine d'empaquetage
Paint Works — Fabrique de peinture
Palsa Bog — Fondrière de palse
Paper Mill — Papeterie
Park — Parc
Parliament Buildings — Édifices du Parlement
Peat Bog — Tourbage
Peat Cutting — Tourbière
Peat Plant — Établissement de transformation de la tourbe
Penitentiary — Pénitencier
Penstock — Conduite forcée
Pile — Pieu
Plant — Usine
Plastic Factory — Manufacture de plastiques
Pollution Sensing Tower — Tour de détection de la pollution
Position Approximate — Position approximative
Poultry Farm — Ferme avicole
Power House — Centrale électrique
Private — Privé, ée
Private Road — Route privée
Proposed — Projeté, ée
Pulp Mill — Usine de pâte à papier
Pumphouse — Usine de pompage
Pumping Station — Station de pompage

R

Radio Telescope — Télescope radioguidé
Raised Beaches — Plages surélevées
Ranger Station — Poste de garde
R C M P — G R C
Recreation Centre — Centre récréatif
Refinery — Raffinerie
Rehabilitation Centre — Centre de réadaptation
Religious Camp — Colonie religieuse
Religious Colony — Colonie religieuse
Research Station — Station de recherches
Reservoir — Réservoir
Residue Pond — Étang de résidu
Rifle Range — Champ de tir
Rink — Patinoire
Roundhouse — Rotonde
Ruins — Ruines

S

Salt — Sel
Salt Domes — Remises de sel
Sand Domes — Remises de sable
Sand Hills — Collines de sable
Satellite Tracking Station — Station de détection de satellites
Sawmill — Scierie
Seed Processing Plant — Usine de traitement de la semence
Seminary — Séminaire
Senior Citizens Home — Foyer de l'âge d'or
Service Centre — Centre de service
Settling Pond — Étang de sédimentation
Settling Tank — Réservoir de sédimentation
Sewage — Égout
Sewage Pipeline — Tuyau d'égout
Sewage Pumping Station — Station de pompage des eaux d'égout
Shipyard — Chantier naval
Shopping Centre — Centre commercial
Shrine — Chapelle
Sink Hole — Puits d'écoulement
Skeet Club — Club de tir aux pigeons
Skeet Range — Champ de tir aux pigeons
Ski Area — Station de ski
Ski Club — Club de ski
Ski Jump — Saut de ski
Ski Lift — Téléski
Ski Lodge — Chalet de ski
Ski Tow — Télésiège
Slag Heap — Crassier
Sluice — Canal de décharge
Sluice Gate — Vanne
Snowshed — Paranaige
Space Research Institute — Institut de recherche spaciale
Spillway — Déversoir
Sportsplex — Centre sportif
Spring — Source
Stadium — Stade
Stand Pipe — Château d'eau
Steam Power House — Centrale à vapeur
Steel Mill — Usine sidérurgique
Stockpile — Réserves
Stockyards — Parc à bestiaux
String Bog — Fondrière à filaments
Strip Mine — Mine à ciel ouvert
Sub Station — Sous-station
Submarine Cable — Câble sous-marin
Sugar Camp — Sucrerie
Summer Camp — Camp d'été
Sunken Wreck — Épave submergée
Surge Pipe — Tuyau de déversement
Surge Tank — Réservoir d'équilibre
Surveyed Line — Ligne arpentée
Suspension — Suspendu
Swing — Pivotant

T

Tailrace — Canal d'aval
Tanks — Réservoirs
Telecommunication — Télécommunication
Television — Télévision
Textile Mill — Usine de textile
Tile Factory — Fabrique de tuiles
Tobacco Plant — Manufacture de tabac
Toll — Péage
Town Hall — Hôtel de ville
Town Limits — Limites de ville
Township Hall — Bureau administratif de township
Trading Post — Poste de traite
Trailer Factory — Usine de roulottes
Trailer Park — Parc de roulottes
Transformer Station — Poste de transformateurs
Tree Nursery — Pépinière
Trout Farm — Centre d'élevage de truites

U

Under Construction — En construction
Underground Reservoir — Réservoir souterrain
Underground Stream — Cours d'eau souterrain
University — Université
University Grounds — Terrains de l'université

V

Valve Station — Poste de valve
Vehicle Testing Track — Piste d'essai de véhicules
Village Limits — Limites de village

W

Wall — Mur
Warden's Station — Station du gardien
Waste — Déchets
Water — Eau
Watermill — Moulin à eau
Water Pipeline — Conduite d'eau
Water Pollution Control — Contrôle de la pollution de l'eau
Water Pumping Station — Station de pompage des eaux
Water Purification Plant — Usine de filtration des eaux
Water Treatment Plant — Usine d'épuration des eaux
Weigh Scale — Balance
Weir — Barrage-déversoir
Wildlife Park — Parc de la faune
Wildlife Sanctuary — Sanctuaire de la faune
Windmill — Moulin à vent
Windpump — Pompe éolienne
Winery — Producteur de vin
Winter Road — Chemin d'hiver

Y

Yacht Club — Club de yacht
Y M C A Camp — Camp Y M C A
Youth Hostel — Auberge de jeunesse

Z

Zoological Gardens — Jardins zoologiques

GLOSSAIRE

A

Abandonné, ée — Abandoned
Abreuvoir — Dugout
Aérophare — Air Beacon
Aéroport — Airport
Alcali — Alkali
Animaux à fourrures — Fur Farm
Aqueduc (souterrain) — Aqueduct (underground)
Arèna — Arena
Auberge de jeunesse — Youth Hostel

B

Balance — Weigh Scale
Ballastière — Ballast Pit
Barrage de régulation — Control Dam
Barrage-déversoir — Weir
Barrière — Barrier, Gate
Barrière de contrôle — Control Gate
Belvédère — Lookout
Borne milliaire — Mile Post
Brasserie — Brewery
Briqueterie — Brick Factory, Brick Plant
Brûleur — Burner
Bureau administratif de township — Township Hall
Buttes — Butts

C

Cabine — Cabin
Câble sous-marin — Submarine Cable
Caisson — Crib
Camp de bûcherons — Lumber Camp
Camp de guides — Girl Guide Camp
Camp de naturalistes — Nature Camp
Camp de scouts — Boy Scout Camp
Camp d'été — Summer Camp
Camp d'été des indiens — Indian Summer Camp
Camp Y M C A — Y M C A Camp
Canal d'amenée — Flume
Canal d'aval — Tailrace
Canal de décharge — Sluice
Caverne — Cave
Centrale à vapeur — Steam Power House
Centrale électrique — Power House
Centre commercial — Shopping Centre
Centre communautaire — Community Centre
Centre de formation des automobilistes — Driver Training Centre
Centre d'élevage de truites — Trout Farm
Centre de pisciculture — Fish Hatchery
Centre de réadaptation — Rehabilitation Centre
Centre de service — Service Centre
Centre équestre — Equestrian Centre
Centre industriel — Industrial Centre
Centre médical — Medical Centre
Centre récréatif — Recreation Centre
Centre sportif — Sportsplex
Chalet de ski — Ski Lodge
Chapelle — Shrine
Champ de foire — Fairgrounds
Champ de glace — Icefield
Champ de tir — Rifle Range
Champ de tir aux pigeons — Skeet Range
Chantier Naval — Shipyard
Château d'eau — Stand Pipe
Chaussée — Causeway
Chemin d'hiver — Winter Road
Cheminée — Chimney
Cimetière — Cemetery
Cinéma — Cinema
Club de cricket — Cricket Club
Club de curling — Curling Club
Club de planeur — Glider Club
Club de ski — Ski Club
Club de tir — Gun Club
Club de tir aux pigeons — Skeet Club
Club de yacht — Yacht Club
Collines de sable — Sand Hills
Colonie biblique — Bible Camp
Colonie d'appartenance religieuse — Church Camp
Colonie de vacances pour jeunes filles — Girls Camp
Colonie de métis — Metis Colony
Colonie d'enfants handicapés — Crippled Childrens Camp
Colonie de plein air — Health Camp
Colonie de vacances pour garçons — Boys Camp
Colonie religieuse — Religious Colony, Religious Camp
Conduite d'eau — Water Pipeline
Conduite forcée — Penstock
Conserverie — Cannery
Contrôle de la pollution de l'eau — Water Pollution Control
Convoyeur — Conveyor
Corniche de glace — Ice Shelf
Coupe-feu — Fire Guard
Cour à bois — Lumber Yard
Cour d'automobiles — Auto Depot
Cours d'eau souterrain — Underground Stream
Couvent — Convent
Crassier — Slag Heap
Croisement de tramways — Cable Car Crossing
Croix illuminée — Illuminated Cross

D

Déblai de mine — Mine Waste
Décharge — Disposal Area
Déchets — Waste
Dépôt de bois — Lumber Depot
Dépôt de briques — Brick Yard
Dépôt lagunaire de cendres — Ash Disposal Lagoon
Dépotoir — Dump
Déversoir — Spillway
Distillerie — Distillery
Douane — Customs

E

Eau — Water
Échelle à poissons — Fish Ladder
Édifices du Parlement — Parliament Buildings
Égout — Sewage
Élevage d'oiseaux pour la chasse — Game Bird Farm
Élévateur — Elevator
En construction — Under construction
Épave submergée — Sunken Wreck
Épave visible — Exposed Wreck
Établissement de transformation de la tourbe — Peat Plant
Étang de résidu — Residue Pond
Étang de sédimentation — Settling Pond

F

Fabrique — Factory
Fabrique de meubles — Furniture Factory
Fabrique de peinture — Paint Works
Fabrique de tuiles — Tile Factory
Fabrique de vêtements — Garment Factory
Ferme avicole — Poultry Farm
Ferme d'animaux — Animal Farm
Ferme de recherche animale — Animal Research Farm
Ferme expérimentale — Experimental Farm
Ferraille — Junk Yard
Ferronnerie — Iron Works
Feu — Fire
Filature — Knitting Mill
Fonderie — Foundry
Fondrière à filaments — String Bog
Fondrière de palse — Palsa Bog
Fossé — Ditch
Fosse à ciel ouvert — Open Pit
Four — Kiln
Foyer de l'âge d'or — Senior Citizens Home
Fromagerie — Cheese Factory

G

Gaz — Gas
Gazoduc — Gas Pipeline
Glaisière — Clay Pit
Glissoire de billots — Log Chute
G R C — R C M P
Grue — Crane
Gué — Ford

H

Halde — Mine Dump
Hangar à bateaux — Boat House
Héliport — Heliport
Hôpital — Hospital
Hôtel de ville — City Hall, Town Hall
Houblon — Hops

I

Installation de broyage — Crushing Plant
Institut de recherche spaciale — Space Research Institute
Institut de réhabilitation — Correctional Institute

J

Jardins zoologiques — Zoological Gardens
Jetées d'estacade — Boom Piers

L

Levant — Lift
Ligne arpentée — Surveyed Line
Limites d'aéroport — Airport Limits
Limites de champ de gaz — Gas Field Limits
Limites de village — Village Limits
Limites de ville — City Limits, Town Limits
Lit de filtration — Filtration Bed
Lit d'épuration — Disposal Bed

M

Maison de détention — Detention Home
Maison de repos — Nursing Home
Manège militaire — Armoury
Manufacture de plastiques — Plastic Factory
Manufacture de tabac — Tobacco Plant
Marin — Marine
MDN — DND
Meunerie — Grist Mill
Micro-ondes — Microwave
Mine à ciel ouvert — Strip Mine
Ministère de la Défense Nationale — Department of National Defence
Monastère — Monastery
Moulin à eau — Watermill
Moulin à farine — Flour Mill
Moulin à grain de provende — Feed Mill
Moulin à vent — Windmill
Mur — Wall
Musée — Museum

O

Observatoire — Observatory
Oléoduc — Oil Pipeline
Oratoire — Oratory
Orphelinat — Orphanage

P

Palais de justice — Court House
Papeterie — Paper Mill
Paranaige — Snowshed
Parc — Park
Parc à bestiaux — Stockyards
Parc à gibier — Game Preserve
Parc d'attractions — Amusement Park
Parc de conservation — Conservation Park
Parc de la faune — Wildlife Park
Parc de roulottes — Trailer Park
Patinoire — Rink
Péage — Toll
Pénitencier — Penitentiary
Pépinière — Tree Nursery
Pétrole — Oil
Pieu — Pile
Pieu (x) d'amarrage — Dolphin (s)
Piste de karting — Go-cart Track
Piste d'essai de véhicules — Vehicle Testing Track
Pivotant — Swing
Plages surélevées — Raised Beaches
Pompe éolienne — Windpump
Pont couvert — Covered Bridge
Pont roulant — Drawbridge
Position approximative — Position Approximate
Poste d'alimentation du bétail — Cattle Feeder Station
Poste de garde — Ranger Station
Poste de premiers soins — First Aid Post
Poste de traite — Trading Post
Poste de transformateurs — Transformer Station
Poste de valve — Valve Station
Pratique de golf — Golf Range
Prison — Jail
Privé, ée — Private
Producteur de vin — Winery
Projeté, ée — Proposed
Puits d'écoulement — Sink Hole
Puits de gaz — Gas Wells
Puits de pétrole — Oil Wells

R

Raffinerie — Refinery
Raffinerie de pétrole — Oil Refinery
Remises de sable — Sand Domes
Remises de sel — Salt Domes
Réserve de gibier — Game Reserve
Réserves — Stockpile
Réservoirs — Reservoirs, Tanks
Réservoir d'équilibre — Surge Tank
Réservoir de sédimentation — Settling Tank
Réservoir souterrain — Underground Reservoir
Rotonde — Roundhouse
Route privée — Private Road
Ruines — Ruins

S

Salle — Hall
Salle communautaire — Community Hall
Salle municipale — Municipal Hall
Sanctuaire de la faune — Wildlife Sanctuary
Sanctuaire d'oiseaux — Bird Sanctuary
Saut de ski — Ski Jump
Scierie — Lumber Mill, Sawmill
Sel — Salt
Séminaire — Seminary
Source — Spring
Sous-station — Sub Station
Soute — Bunker
Stade — Stadium
Station de compression — Compressor Station
Station de comptage — Meter Station
Station de détection de satellites — Satellite Tracking Station
Station d'enregistrement du niveau de l'eau — Gauging Station
Station de pompage — Pumping Station
Station de pompage de gaz — Gas Pumping Station
Station de pompage des eaux — Water Pumping Station
Station de pompage des eaux d'égout — Sewage Pumping Station
Station de recherches — Research Station
Station de recherches agricoles — Agricultural Research Station
Station de ski — Ski Area
Station du gardien — Warden's Station
Station de téléphérique — Cable House
Sucrerie — Sugar Camp
Suspendu — Suspension

T

Télécommunication — Telecommunication
Téléphérique — Aerial Cableway
Télescope radioguidé — Radio Telescope
Télésiège — Chair Lift, Ski Tow
Téléski — Ski Lift
Télévision — Television
Terrain d'aviation — Airfield
Terrain de baseball — Ball Park
Terrain de golf — Golf Course
Terrains de l'université — University Grounds
Terrain d'exposition — Exhibition Grounds
Tourbage — Peat Bog
Tourbière — Peat Cutting
Tour de contrôle — Control Tower
Tour de détection de la pollution — Pollution Sensing Tower
Traversier — Ferry
Trémie — Hopper
Tuyau de déversement — Surge Pipe
Tuyau d'égout — Sewage Pipeline

U

Université — University
Usine — Plant
Usine d'asphalte — Asphalt Plant
Usine d'automobiles — Automobile Plant
Usine de béton — Concrete Plant
Usine de ciment — Cement Plant
Usine de coke — Coke Plant
Usine de fibre de verre — Fiberglass Plant
Usine de filtration — Filtration Plant
Usine de filtration des eaux — Water Purification Plant
Usine de gaz — Gas Plant
Usine de granit — Granite Plant
Usine de gypse — Gypsum Plant
Usine de matériel électronique — Electronics Plant
Usine de mise en baril du poisson — Fish Packing Plant
Usine d'empaquetage — Packing Plant
Usine d'engrais — Fertilizer Plant
Usine de pâte à papier — Pulp Mill
Usine de pompage — Pumphouse
Usine de produits chimiques — Chemical Plant
Usine d'épuration des eaux — Water Treatment Plant
Usine de roulottes — Trailer Factory
Usine de textile — Textile Mill
Usine de traitement de la semence — Seed Processing Plant
Usine sidérurgique — Steel Mill

V

Vanne — Sluice Gate
Varech — Kelp
Verrerie — Glass Factory
Village indien — Indian Village

Z

Zone de conservation — Conservation Area
Zone de tir — Firing Range

SIGNES CONVENTIONNELS

(Noir à moins d'indication contraire)

Route à deux chaussées séparées
Route pavée, toutes saisons, plus de 2 voies — Rouge
Route pavée, toutes saisons, 2 voies — Rouge
Route pavée, toutes saisons, moins de 2 voies — Rouge
Route de gravier ou surface durcie, toutes saisons, 2 voies ou plus — Orange
Route de gravier ou surface durcie, toutes saisons, moins de 2 voies — Orange
Route de gravier, temps sec — Orange
Rues hors classe — Orange
Chemin de terre ou d'hiver — Orange
Sentier, percée ou portage — Orange
Route en construction — Orange ou rouge
Échangeur avec numéro; rond-point — 62 — Rouge
Signalisation routière — 5 — Orange ou rouge
Agglomération — Trame rouge
Chemin de fer, voie unique
Chemin de fer, voies multiples
Chemin de fer, voie étroite
Chemin de fer abandonné
Gare; arrêt sur signal; plaque tournante
Pont; passerelle
Pont mobile: pivotant, roulant, levant
Tunnel
Traversier
Gué
Feu de navigation
Base d'hydravions; ancrage d'hydravions
Ancrage pour gros navires; petits navires
Maison; grange; grand bâtiment
Église; école
Bureau de poste; bureau de télégraphe
Élévateur; serre
Cimetière; lieu historique; champ de bataille historique — C
Tour, cheminée, constructions semblables
Moulin à vent, pompe éolienne
Lit d'épuration des eaux d'égout, lit de filtration — Noir & Bleu
Puits d'eau — Bleu
Puits: pétrole, gaz
Réservoir: pétrole, essence, eau
Gazomètre
Pipeline avec valve de contrôle
Pipeline sur terre; sous terre
Ligne téléphonique
Ligne de transport d'énergie
Terrain de camping; terrain de pique-nique
Piste de sports
Mur de soutènement: grand, petit
Mine
Gravière ou sablière; carrière
Digue; clôture
Déblai; remblai
Frontière internationale avec bornes-repères — Trame rouge
Limite de province, de territoire, ou d'état
Limite de comté ou de district
Limite de township ou canton, de paroisse
Limite de township ou canton non arpentée
Limite de cité, ville, établissement
Limite de réserve, de parc
Ligne de section
Ligne arpentée, ligne de lot
Repère planimétrique
Repère de nivellement avec cote — 1475
Point coté: précis, imprécis — •2520 — •2947 — Brun
Altitude de la surface de l'eau: précise, imprécise — 2520± — 2947± — Brun
Cours d'eau ou rive; imprécis — Bleu
Canal d'irrigation, de décharge, fossé — Bleu
Direction du courant — Bleu
Lac intermittent, bourbier — Bleu
Terrain inondé, inondé en saison — Bleu
Marais ou marécage — Bleu
Lit de cours d'eau tari avec chenaux — Bleu & Brun
Fondrière à filaments — Bleu
Étangs de toundra; polygones de toundra — Bleu
Chutes — Bleu
Rapides — Bleu
Réservoir, abreuvoir, piscine — Bleu
Estrans — Brun
Récif submergé — Brun
Roches — Brun
Barre rocheuse, récif rocheux — Brun
Barrages: petits, grands — Brun
Écluses: petites, grandes — Brun
Quai, brise-lame, jetée, bassin; mur de protection — Brun
Cale pour traversier; cale sèche; rampe de chargement — Brun
Courbes de niveau — Brun
Courbes de niveau approximatives — Brun
Courbes de cuvette — Brun
Falaise — Brun
Esker — Brun
Sable; dunes — Brun
Moraine, éboulis — Brun
Crevasse glaciaire — Bleu
Région boisée — Vert
Verger — Vert
Vignoble, houblonnière — Vert