Summary Sheet

IDTO - ID Number :992701
AUTH - Report Author :
TYFU - Tornado Type & Fuji Code :a2
TITL - Report Title or Location :Vulcan
PROV - Province :Alberta
COUN - Counties :Willow Creek/Vulcan
REFS - References :TIA
ZOTO - Touchdown Zone Number & Easting :12317660
NOTO - Touchdown Northing :5561900
LOVA - Touchdown Error Value & Code :2000c
DADA - Date of Data Entry :02/08/1990
ZOLO - Liftoff Zone Number & Easting :12343370
NOLO - Liftoff Northing :5588560
UPVA - Liftoff Error Value & Code :231s
DEAD - Number of Fatalities :
HURT - Number of People Injured :
HERT - Injuries Code :
DATA - Date of Tornado :08/07/1927
DAVA - Date Error Value & Code :
TITO - Time of Tornado :1940
TIMR - Time Meridian :105
TIVA - Time Error Value & Code :30c
AXDA - Maximum Path Width :
AXVA - Max. Path Width Error & Code :
AVDA - Average Damage Width :
AVVA - Avg. Damage Width Error & Code :
SADA - Sample Damage Width :
SAVA - Sample Damage Width Error & Code:
INTO - Initials :JAM
DFTO - Detailed Report Flag :n
JUNK - PRDA & DIMO & DALE :
CODA - Property Damage Code :
MISC - ORDE,PICS_TYPE,PICS_AVAIL,COCO : 239
MANY - Multiple Event Flag :y

MEMO:Legal location se24-14-27 w4 to sw 14-17-24 w4 Curling rink destroyed, `many buildings demolished'. Tornado observed and photographed by many in the town.

PHEN - Associated Phenomena :P A65
TSHP - Townships :14,27/16,25/16,24/17,
24

JAM, 02/08/1990

KEENAN, D.

STORM DATE: 1940, LOCAL FRI JULY 8, 1927

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1927 Confederation Sports Day Ends With Destructive Tornado

Not content to be the world's largest primary grain shipping point and to have had the largest grain-hauling team in the world (Slim Moorehouse's 32-horse outfit), Vulcan had to have a tornado — one of the few ever recorded this far north. The tornado brought Vulcan reams of publicity and still does, for Charlie Jones' famous photo, taken down main street as the menacing funnel approached the town, has graced the pages of Encyclopeadia Britannica for the past 25 years as a perfect photographic record of what a tornado looks like as it sweeps down on a town.

It was 7:40 p.m. on July 8, 1927, and a large crowd had gathered in town for the Confederation sports day, postponed from July 1, because of rain. The day had been hot and clear but clouds started to gather in late afternoon and the atmosphere was muggy and damp. The clouds appeared to be churning in an unusual manner and from the south-west a great, rolling grey cloud swept down on the town, releasing an intermittent fall of hailstones as big as eggs, with some as large as baseballs. The stones came down with terrific force, bouncing as they hit the ground, and plunged through many automobile tops. Scores of windows were smashed by the stones but, with time to take cover, no one was injured by the oversized hailstones.

By this time the tornado itself could be seen and its roar could be heard for miles. There was no panic amongst the townspeople and visitors as they gathered in small groups and watched the funnel-shaped cloud as it whirled down on the town. As it struck the populated area, the roaring tornado seemed to lift and flatten out, which probably accounts for the fact that much of the town escaped damage and no lives were lost. But wherever the funnel dipped and came down to the ground again there was utter destruction.

When the tornado struck, the air was full of dust, splinters, fence posts, chicken coops, signs and other moveable objects. Tremendous property damage was done in the space of about one minute, but although there were a few cases of slight injury and many narrow escapes, there were no fatalities or serious injuries to persons.

Greatest destruction wrought was at the big curling and skating rink building, constructed in 1923. The curling rink was completely demolished, with the roof stripped off and walls collapsed. One section of the skating rink roof was torn off. At Burrows' Garage (now Central Garage) a large section of the brick and tile wall was blown out. Roy Ferguson's large livery barn was badly wrecked. Flying debris caused considerable damage to Con Kettleson's home and the streets were a tangle of wires from blown-down telephone and electric light poles. Fences in the path of the tornado were flattened and in many cases just disappeared and dozens of automobiles had their tops stripped off or were overturned and rolled down the street.

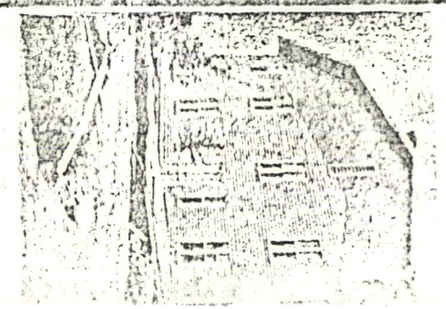
It appeared that the whirling cloud had exerted its most terrific force just before it hit the town. At W. J. Montgomery's dairy farm, just south-west of town, the big dairy barn was directly in the storm's path and it simply disappeared in a cloud of splinters. Some of the cows, although out of the barn at the time, were badly hurt by the oversized hail stones. One of the tornado's freakish antics, exhibiting the terrific atmospheric vacuum created by the wildly rotating centre, occurred at the Montgomery farm when a heavy iron pump was drawn straight up 20 feet out of the well.

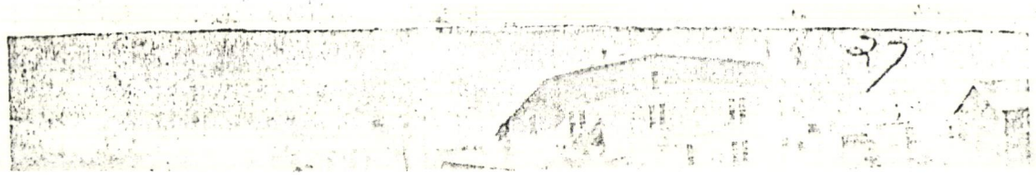
At the nearby Hamilton Johnston farm, the farm implement shed was completely destroyed and a large threshing machine was picked up, carried 200 feet, and then dropped and smashed to bits.

Barns, granaries and other farm buildings at the farms of J. Mallory, F. Galloway, Chris Zahnd, C. Layman, Johnny Johnston, Charlie Gonyea, Harry Adams and others were destroyed but crops were not badly damaged.

Reports indicate that the tornado (erroneously called a cyclone at that time) formed about 15 or 20 miles southwest of Vulcan in the vicinity of the Little Bow River and travelled in a north-easterly direction to Vulcan. The breakup developed rapidly as the storm passed over the town and there were no reports of damage from other parts of the district.







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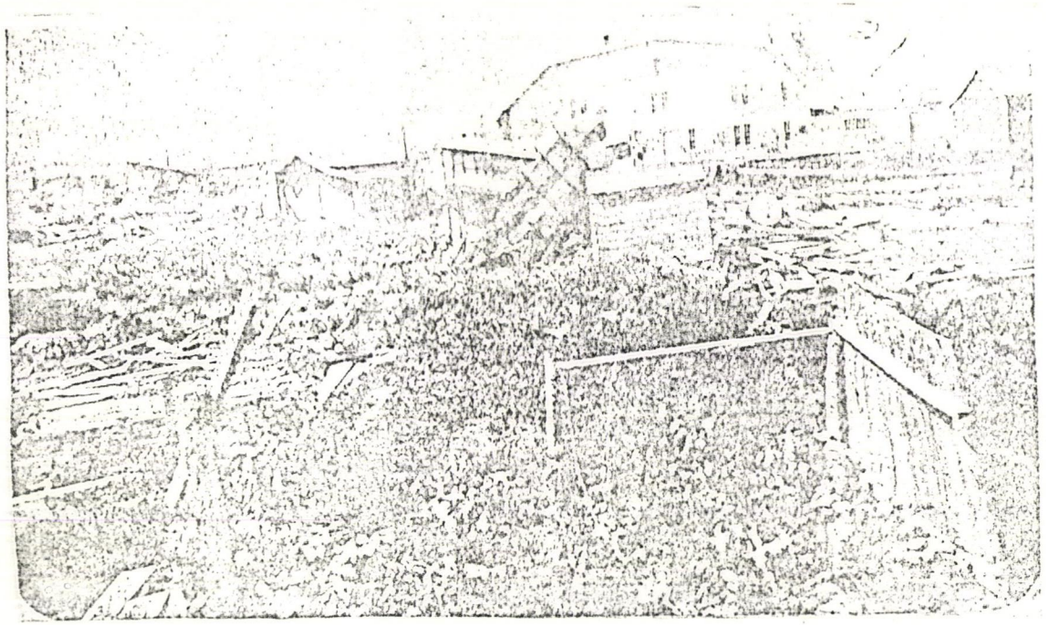

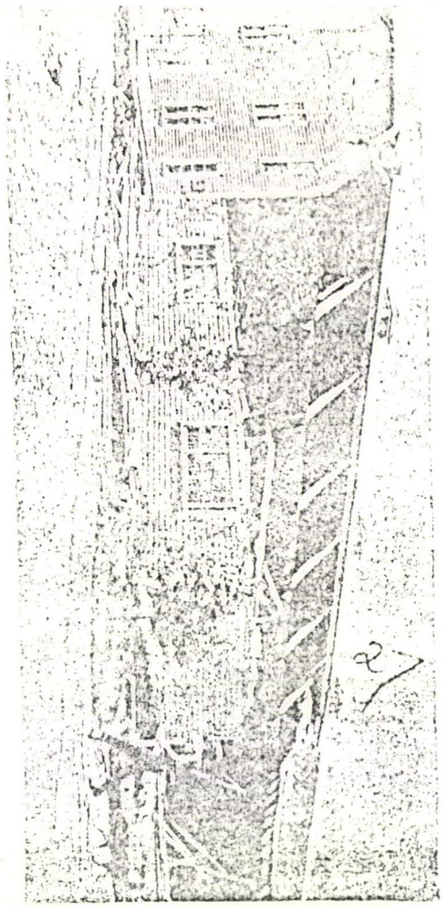

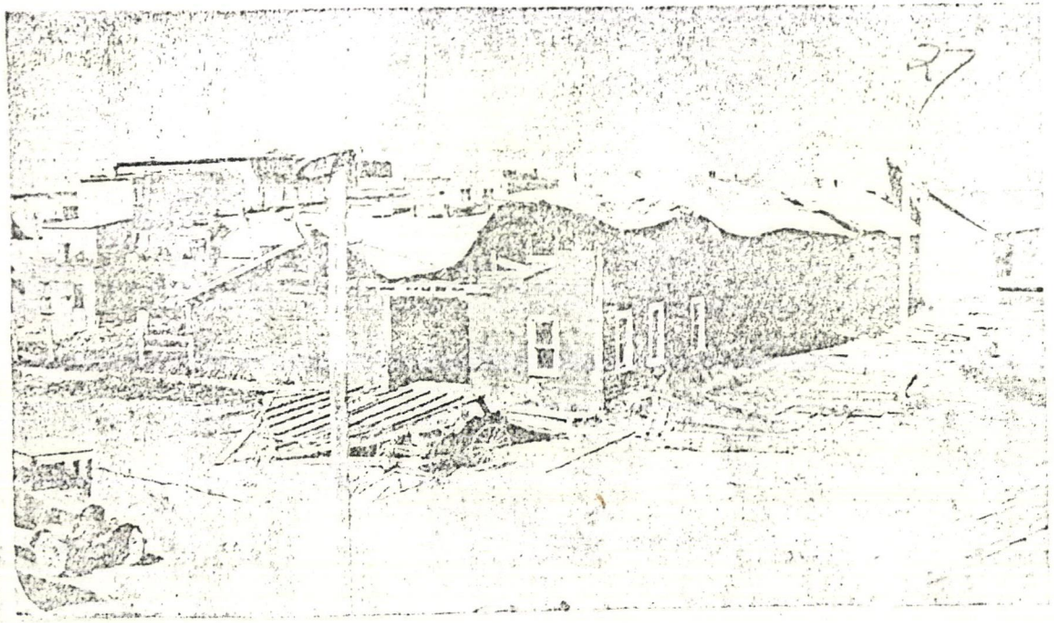

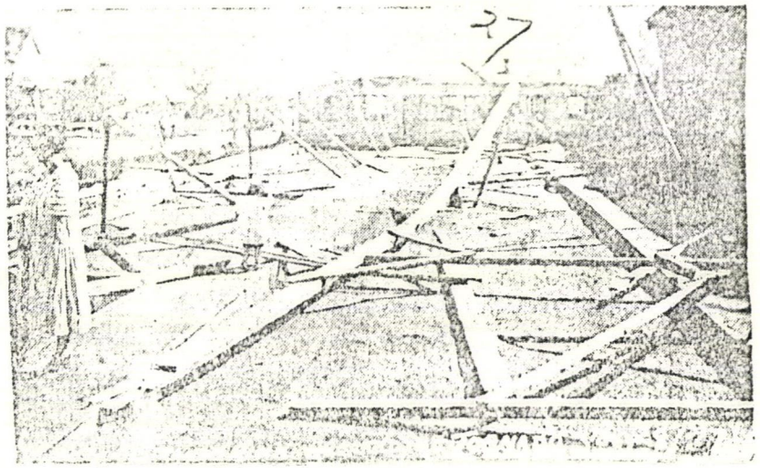

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(5.8), Mississippi (5.7), Nebraska (5.6). Figure 11-6 shows the distribution of tornadoes within the United States. It is clear that they are most frequent in the middle west, with a secondary maximum of occurrence in the southeast states. They are practically unknown west of the Rocky Mountains and are rare in New England.

Tornadoes are exceedingly violent whirls of wind and range in size from a hundred feet or so to perhaps a mile in diameter. Most of them are in the range from 500 to 2000 feet in diameter. They travel over the ground with a speed of 20 to 40 mph, and the length of their path is usually just a few miles, although some have apparently continued active for over a hundred miles. They often appear in families of several separate tornadoes.

"ELEMENTARY METEOROLOGY" 1954 GEORGE TAYLOR PRENTICE HALL.

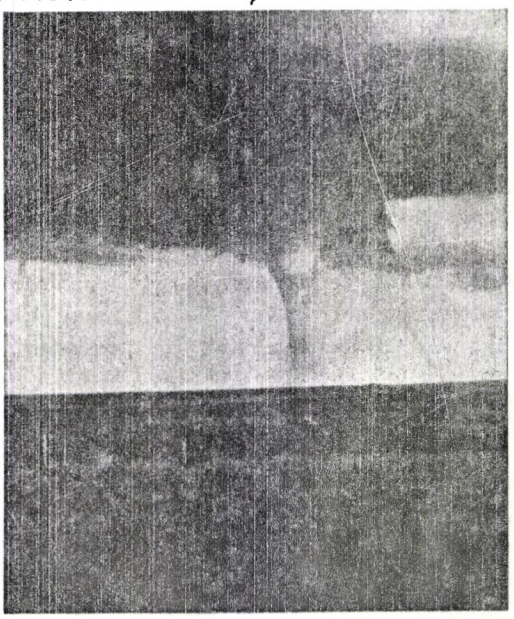

FIGURE 11-8. Tornado funnel at Vulcan, Alberta, Canada, on 8 July 1927. *Courtesy, U. S. Weather Bureau.*

The maximum winds in a tornado have never been measured but from the effects observed probably exceed 500 mph. These winds are undoubtedly the strongest that ever occur at the surface. The vertical velocities must also be great, probably exceeding 150–200 mph at times. The wind usually whirls about the storm center with a cyclonic sense of rotation, though cases of anticyclonic circulation are not unknown. The Coriolis force does not determine the direction of rotation with small whirls.

Tornadoes are always closely associated with vigorous thunderstorm activity, and hail usually occurs in connection with them or close by. Tornadoes are accompanied by a loud roaring sound due to the high winds.



FIGURE 11-9
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VULCAN, ALTA JULY 8, 1927

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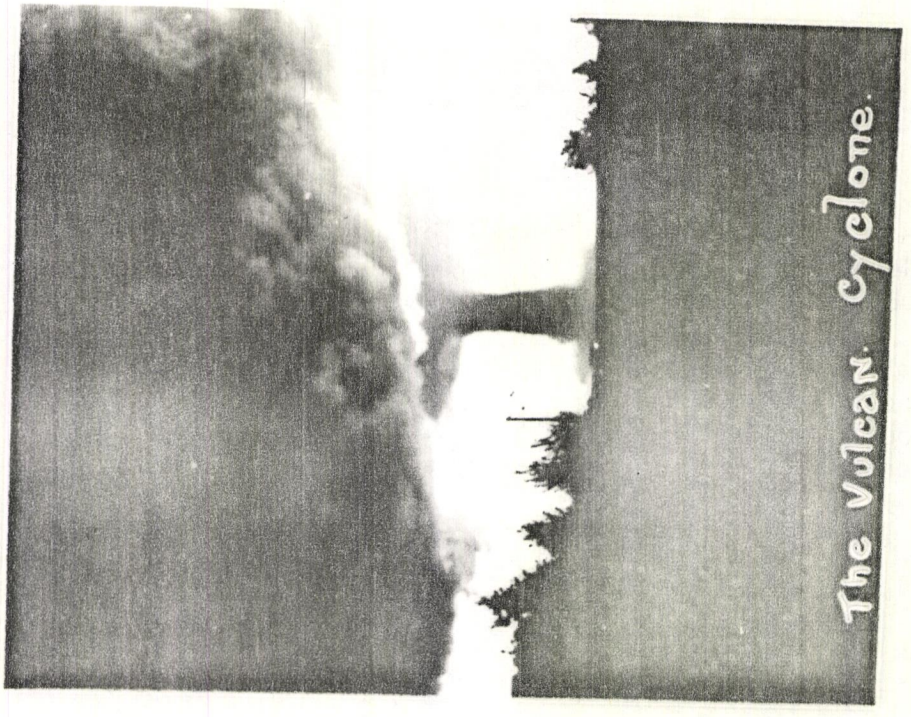
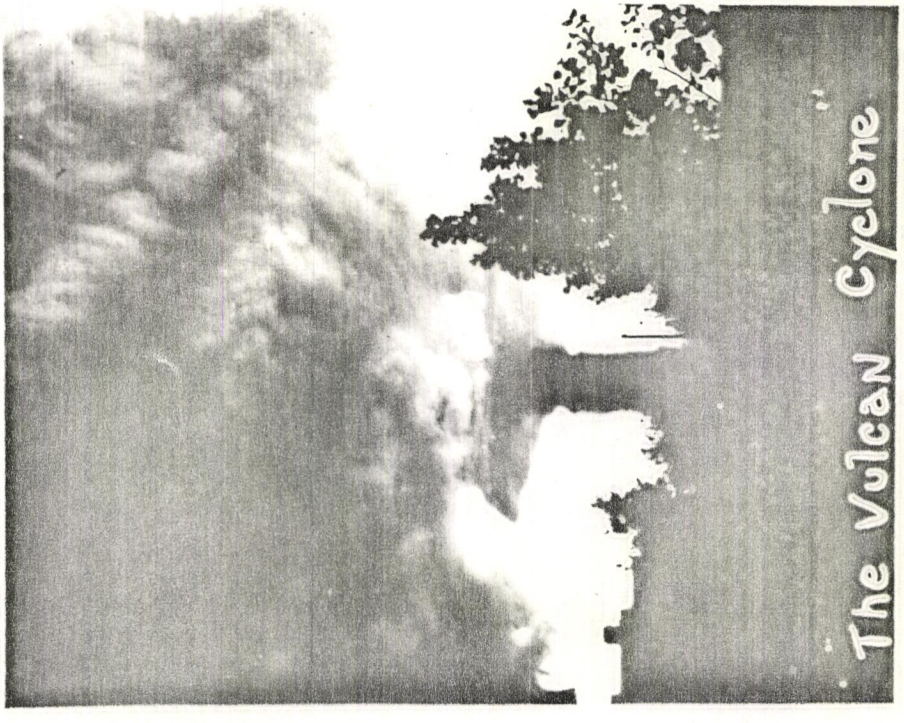


NA-2401-6



File No. NA-748-36
Subject Cyclone at Vulcan.

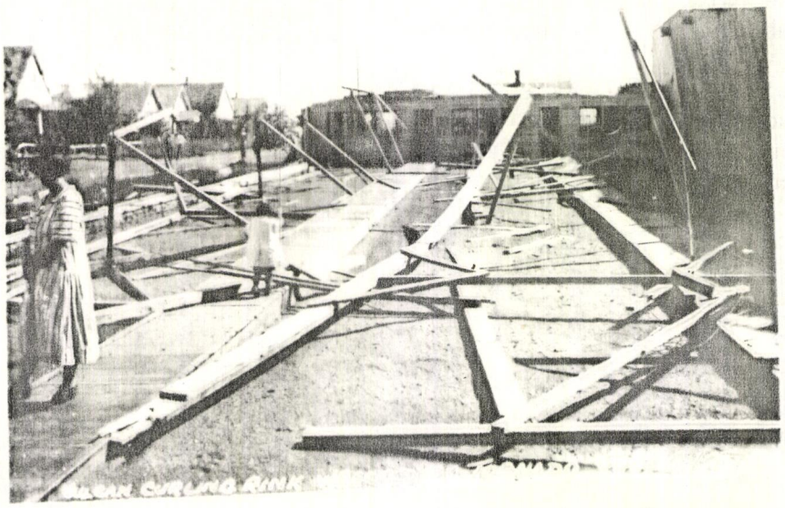
Date 1927
Photographer
Source Mrs. Clayton MacMillan, Box 234, Vulcan
Remarks

File No.
Subject

Date
Photographer
Source
Remarks

NA 695-68
NA 748-32
NA 748-33
NA 748-34
NA 748-36
NA 749-3
NA 986-6
~~NA 1497-40~~
~~NA 1497-41~~
NA 1662-5
NA 1918-1
NA 2401-6
NA 2551-1
NA 2552-2
NA 2551-3
NA 2556-5

NA-748-33



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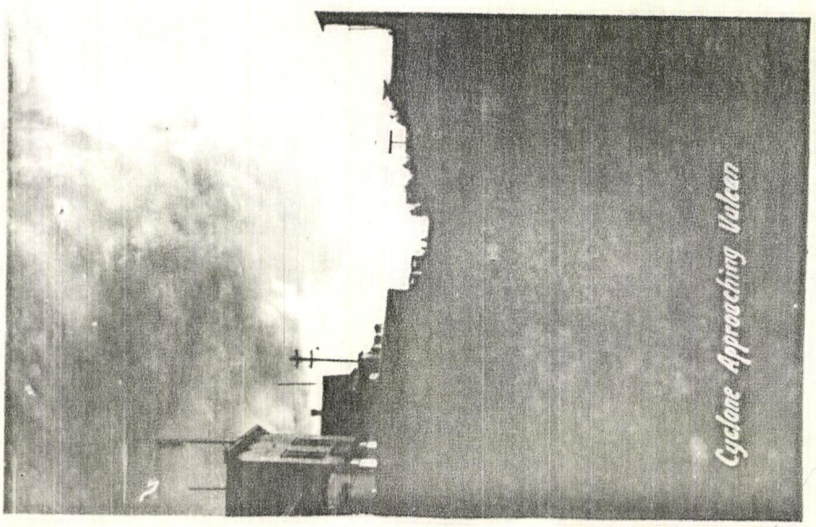
NA-695-68



File No. NA-748-33
Subject Vulcan building wrecked by cyclone.

Date July 8, 1927.
Photographer
Source Mrs. Clayton MacMillan, Box 234, Vulcan
Remarks Wreckage of curling and skating rinks.

File No. NA-748-32
Subject Vulcan after cyclone.

Date July 8, 1927.
Photographer
Source Mrs. Clayton MacMillan, Box 234, Vulcan
Remarks Skating and curling rinks demolished.

File No. NA-695-68
Subject Cyclone approaching Vulcan.

Date 1927.
Photographer D. C. Jones, Vulcan.
Source George W. Pocaterra, 3003-25 St. S. W.
Remarks

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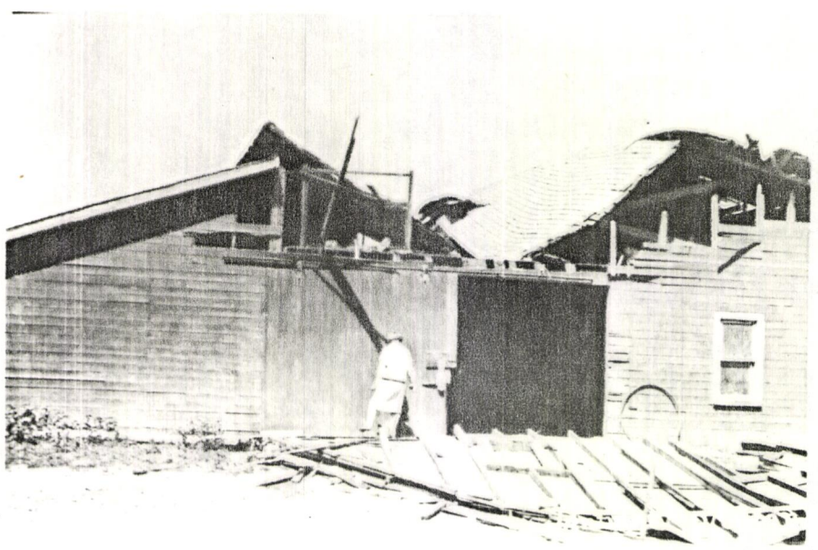


NA.748.34



File No. NA-749-3
Subject Destruction caused by Vulcan cyclone.

Date 1927
Photographer
Source R. Munroe, Editor, Vulcan Advocate, Vulcan
Remarks Wreck of curling rink.

File No. NA-748-35
Subject Wreckage from Vulcan cyclone.

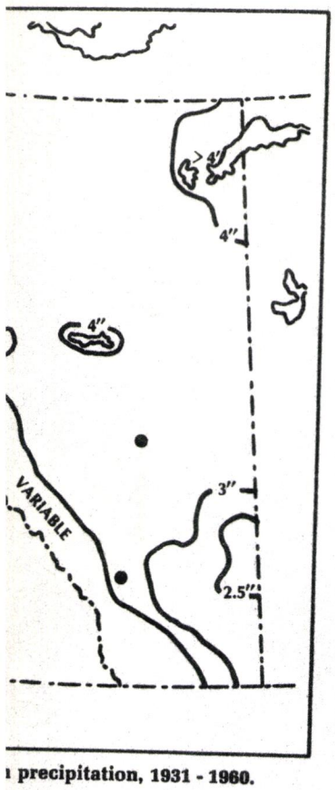
Date July 8, 1927
Photographer
Source Mrs. Clayton MacMillan, Box 234, Vulcan
Remarks Ferguson's barn badly damaged.

File No. NA-748-34
Subject Vulcan building after cyclone.

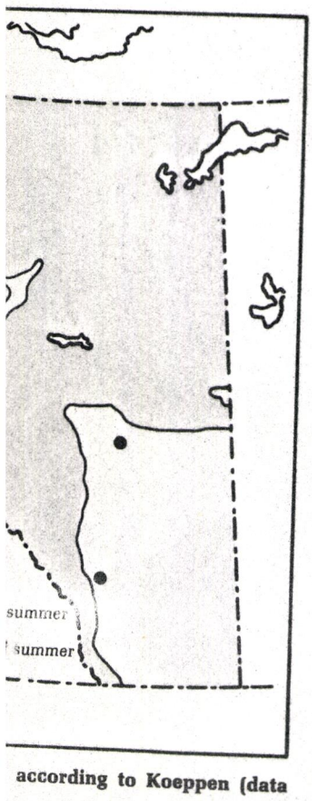
Date July 8, 1927.
Photographer
Source Mrs. Clayton MacMillan, Box 234, Vulcan
Remarks Brick wall of Burrow's garage blown out.

JULY 8 1927 VULCAN. ALBERTA 99270

hich occurred at Vulcan, in 1927.



precipitation, 1931 - 1960.



according to Koeppen (data



G. F.

Autumn rainfall

Over most of Alberta, mean monthly precipitation decreases rapidly from the summer maximum. By October, the total monthly precipitation averages about one inch and, in general, the total autumn precipitation lies between three and four inches. As a result, as mentioned, the soil in the agricultural areas holds little reserve of moisture for the spring. Always, however, there is year-to-year variability, and in some years in certain areas too much rain or snow makes harvesting difficult. Thus, in October, 1959, along the North Saskatchewan River and in the Peace River region, rain fell on 12 to 16 days instead of the normal nine to ten days, and wheat sprouted where it lay.

The number of hours of daylight decreases in autumn, and daytime cloudiness increases from five to ten per cent over the summer minimum and the clouds are thicker and lower than those of summer. As the autumn months pass, the boundary between cold Arctic air and mild Pacific air lies with increasing frequency in Alberta. Strong winds then become common. As winter sets in, this boundary is generally either in



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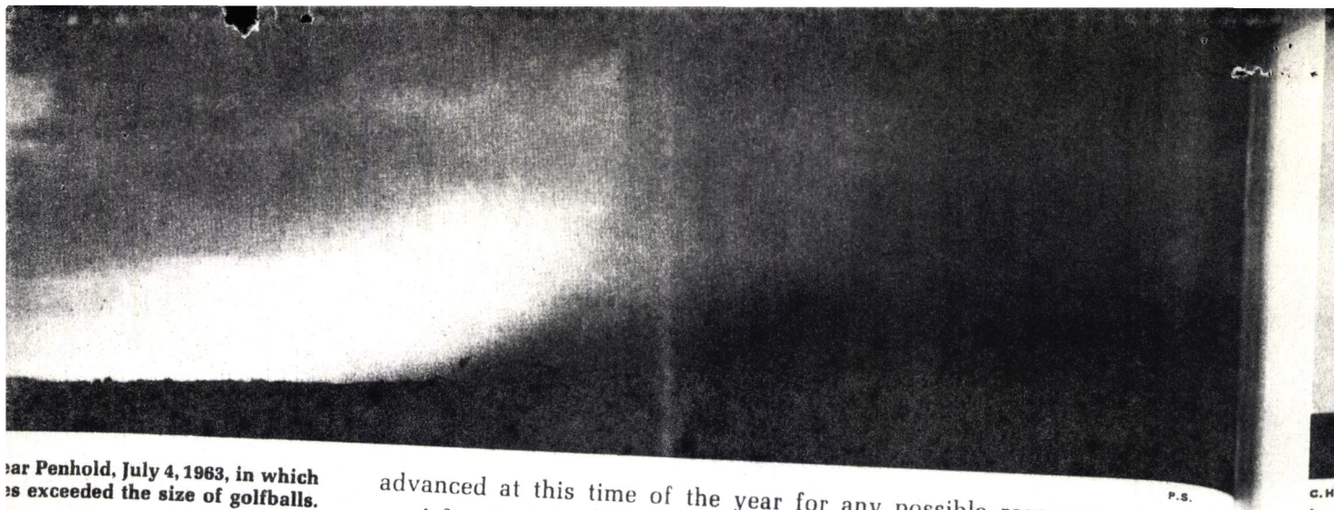
ALBERTA, A NATURAL HISTORY
CLIMATE AND WEATHER PATTERNS.
RICHMOND W LONGLEY P 66
} M C HURTIG EDMONTON. 1967



ear Penhold, July 4, 1963, in which
es exceeded the size of golfballs.

P.S.

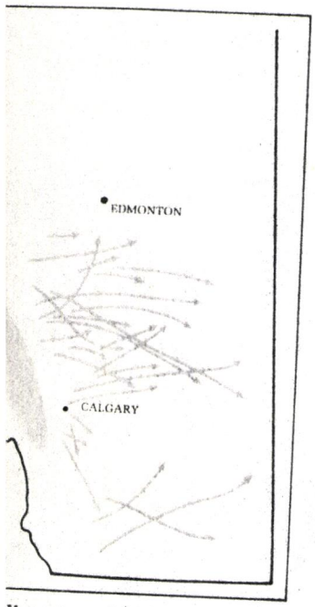
advanced at this time of the year for any possible recovery.

A few times each summer, a tornado accompanying one of the storms has a brief but violent life. A tornado is a relatively small vortex of very high winds that passes along the earth's surface. Its diameter is less than a quarter of a mile. In Alberta, tornadoes are not as frequent, as intense, or as long-lived, as those in the central United States, where they may have paths up to 50 miles long and winds in excess of 200 miles an hour. Alberta's tornadoes usually have paths less than one mile in length, although they can uproot trees and demolish farm buildings. Also, at times during the summer, there are cloudbursts, such as that of July 31st, 1953, which poured 4.5 inches of rain on Edmonton.

July and August are the least windy months of the year, and summer is the sunniest season, particularly because in northern latitudes the summer days are long, with up to 18 hours of daylight. Clear mornings are common, although there may be cloudiness and showers in the afternoons. By the middle of August, however, the height of summer is already past, and by Labour Day there is usually a chill to the air. Autumn has begun.

Autumn temperatures

During the autumn months of September to November, Alberta's continental position brings about a rapid drop in temperature from the preceding summer peak. For example, from April to July the average temperature at Lethbridge is one to three degrees higher than that at Halifax, Nova Scotia. By the middle of August, in Lethbridge it is 2.5 degrees lower, and by September the average thermometer reading is five degrees below that at Halifax. In the middle of November, the difference



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The Banner, Orangeville. August 18 1927, p2.
Storm Date,

Hail and Wind

Farmers at Vulcan, Alberta suffer severely from cyclone and hailstorms. Mr R.J.Galbraith of Mono has received a letter from his sister Mrs Fred T Chapman of Vulcan Alberta giving some particulars of the damage sustained in that didtrict from a severe cyclone and hailstorm. Mr Galbraith's brother, Mr George H Galbraith was among those who had the misfortune to get cleaned out. Extracts from Mrs Chapman's letter read;

" I have drawn a map of the cyclone's track which will tell you more than I can write. It started on the northwest corner of the old Mallory section. It cleaned out buildings mostly but so far as I have heard, no persons injured. The milkman who has 40 cows had one of them hurt with the flying lumber.It was funny to see the whole side of a bin or barn flipping around just like a paper in the breeze,it would almost have made you laugh to have seen the excitement displayed by Stewart. D.H. said to me this is the beginning of the tribulation, to which I answered, then look up, lift up your head for the day of your redemption draweth nigh. Because of the re-assurance of that one verse I did not feel one bit afraid.

The Cyclone passed us by, but not so with the hail last sunday night, it cleaned out all the summer fallow and all the purebread wheat off 150 acres,changed the rye from 40 to 11 and most of the oats are gone. Potatoes, corn and garden are flat. Some of the garden may come on again. You never saw such a looking sight as the rhubarb. We had three hailstorms from 9.40 pm until 12 o'clock and then one after that. D.H. said it was the first time that he had ever known of hail at night. The cyclone was a new thing here, but it is not in it with the hail for real destruction."