
**Confirmed Tornado
Rice Lake, Ontario
May 31, 1985**

Date- Local: Friday, May 31st, 1985.

UTC: Friday, May 31st, 1985.

Time-Local: 18:20

UTC: 22:20

Location: Rice Lake

Region: Peterborough – Kawartha Lakes

Classification: Confirmed Tornado

Category: A

Casualties: None

Track Length: 16260m

Width: None Available

Motion: 227°

Damage Estimate: \$2 million

F-Scale Rating: F2

Code: UH/BS

Damage Survey: yes

Spotter Reports: None

Other Documents:

Logged event citing tornado.

The May Thirty-First Tornado Outbreak in Southern Ontario report.

More information can be found in the brown 'Ontario May 1985' folder at the front of the year.

Damage survey report including eyewitness survey forms and pictures.

Map of tornado path including points of interest/photos taken.

Newspaper articles detailing damage.

Tornado F-Scale Assessment

Marci Vanhoucke

Tornado Data Production Assistant, Environment Canada

July 21, 2005.

Classification: Confirmed Tornado

Date: Friday, May 31st, 1985.

Location: Rice Lake, Peterborough – Kawartha Lakes

Assessment: F2

F-Code: UH/BS

Explanation of Assessment: There is a Tornado Outbreak report stating that along the damage track, there were 5 barns destroyed, a house trailer blown over, several cabins destroyed and hundreds of trees downed. Due to the damage cited, this tornado is rated an F2.

CLASSIFICATION: Severe Thunderstorm**SOURCE/WATCHER ID:****EVENT TIME (UTC):** 22-20 **EVENT DAY:** 31.0 **MONTH:** 5.0 **YEAR:** 1985.0 **EVENT DURATION (HR):** 0.0 **(MIN):** 0.0**DAY OF THE WEEK:****EVENT LOCALE:** Rice Lake**ASOCTD PUBLIC RGN:** Peterborough and the Kawarthas**DETAILED DESCRIPTION:**

Alma family of tornadoes

INITIAL ASSESSMENT: YES**SPL WX STATEMENT IN EFFECT ?:** UKN **STATEMENT LEAD TIME (HR):** (MIN):**WATCH IN EFFECT ?:** UKN **WATCH LEAD TIME (HR):** (MIN):**WARNING IN EFFECT ?:** UKN **WARNING LEAD TIME (HR):** (MIN):**TORNADO:****WINDSPEED:** ?**RAINFALL:** ? MM **RAIN DURATION:****HAIL DIAMETER:** MM **HAIL DESCRIPTION:****EVENT DESCRIPTION:** Tornado**Mesoscale ?:****Synoptic ?:****Big Event ?:****Statement Est Hit/Miss:****Watch Est Hit/Miss:****Warning Est Hit/Miss:****Separate Event (30km/30min):** YES**Vetted by:****Vetted date:**

THE MAY THIRTY-FIRST TORNADO OUTBREAK IN SOUTHERN ONTARIO

TABLE OF CONTENTS

	<u>Page</u>
1. Introduction.....	1
2. Meteorological Conditions and Severe Weather Watches.....	1
3. The Severe Weather Event and the Severe Weather Warnings.....	3
4. Tornado Paths and Estimated Time of Occurrence.....	3
5. Damage and Description of Individual Tornadoes.....	4
5.1 Rush Cove Tornado.....	4
5.2 Barrie Tornado.....	5
5.3 The Grand Valley-Tottenham Tornado.....	7
5.4 Alma Tornado.....	8
5.5 Wagner Lake Tornado.....	8
5.6 Reaboro Tornado.....	8
5.7 Ida Tornado.....	8
5.8 Rice Lake Tornadoes.....	8
5.9 Minto Tornado.....	8
6. Recommendations.....	9
7. Conclusion.....	9

TABLE I Time of Occurrence of Tornadoes by County

Figure 1 Hail, Damaging Wind Areas and Tornado Tracks for May 31, 1985 Tornado Outbreak

Figure 2 Tornado Paths for Barrie, Grand Valley-Tottenham, and Alma Tornadoes.

Figure 3 Tornado Paths for Wagner Lake, Reaboro, Ida, Rice Lake and Minto Tornadoes

Figure 4 Tornado Path for Rush Cove Tornado

Figure 5 City of Barrie Tornado Path

Acknowledgements:

We wish to acknowledge the contribution of all staff from the Ontario Weather Centre, Scientific Services Division, Peterborough Weather Office and the Kingston Weather Office who conducted on site investigations or aerial surveys of the tornado paths during the week following the tornado outbreak.

THE MAY THIRTY-FIRST TORNADO OUTBREAK IN SOUTHERN ONTARIO

by

W. Lawrynuik - Chief, Forecast Operations
B. Greer - Chief Meteorologist
M. Leduc - Severe Weather Meteorologist
O. Jacobsen - Meteorologist

1. Introduction

During the afternoon of May 31, 1985 a powerful cold front moved through Southern Ontario triggering a series of very damaging tornadoes. Twelve people were killed and scores of others injured as the storms moved across the Province. Property damage is estimated well over \$100 million.

This report will outline the weather pattern of May 31 which led to the storms as well as the Ontario Weather Centre's response to the real time events of the day. The report will document through detailed maps the tracks of all the tornadoes confirmed to this date (June 10). A general description of the damage and a best estimate of the time of the tornadoes will be included. Some preliminary recommendations are put forward as a consequence of the May 31st tornado outbreak.

2. Meteorological Conditions and Severe Weather Watches

On May 30th hot, humid tropical air became established across the Central United States. The air was also very unstable meaning that with any sort of lifting mechanism very intense thunderstorms could develop. During the early afternoon of May 30th a weak disturbance moved across Lake Erie and allowed some of this tropical air to move into extreme southwestern Ontario.

Another weak disturbance during the morning hours of May 31st pushed the warm humid air northeastward producing thunderstorms across all of Southern Ontario. No damage was reported from these thunderstorms in Ontario but the arrival of the warm very unstable airmass set the stage for the very dramatic events of later that day.

While the warm humid air was becoming established across the south half of Ontario an intense spring storm was developing just west of the Great Lakes. A low pressure centre with strength more typical of a mid winter storm tracked across upper Michigan during the morning of May 31st to north of Sudbury by evening. A very sharp cold front trailed southward from this low pressure system.

The morning analysis at Environment Canada's Ontario Weather Centre indicated that the thermodynamic and dynamic features necessary for the possible development of severe thunderstorms were present. The thermodynamic instability of the airmass was confirmed from the radiosonde reports east of the cold front crossing Michigan. The air above one km was

2. Meteorological Conditions and Severe Weather Watches - Cont'd...

very dry and cool while the tropical airmass near the surface was very hot and moist. The dynamic features (triggering mechanisms) were strong, that is, a sharp cold front and a sharp upper trough crossing Michigan and a very strong westerly jet stream above 10 km with winds of approximately 400 km/h (200 knots). The cold front and upper trough were expected to cross Southern Ontario during the afternoon and early evening.

As a result, the severe weather watch originally issued at 2:40 a.m. May 31st, was updated and extended for all of Southern Ontario at 7:00 a.m., 9:20 a.m. and 1:50 p.m. advising of the potential for the development of severe thunderstorms later in the afternoon and early evening. It was anticipated that these thunderstorms would be very strong since the cold front and trough were crossing the province about the time of maximum surface heating (late afternoon), which would produce the maximum thermodynamic instability in the airmass.

By noon on May 31st the thunderstorm activity associated with the weak disturbance which had affected Southern Ontario overnight had virtually ceased. There was no evidence from radar reports of any thunderstorms along the cold front approaching the Bruce Peninsula from Lake Huron.

3. The Severe Weather Event and the Severe Weather Warnings

At 1:40 p.m. radar indicated the first thunderstorm cells developing west and north of the Bruce Peninsula. By 2:20 p.m. a line of potentially severe storms was indicated by radar from the mouth of the French River to just off the Bruce Peninsula with more cells beginning to form further south. The first severe thunderstorm warnings * were issued for Bruce County and Parry Sound District at 2:25 p.m. The line of severe storms continued to develop. Warnings were issued for Huron, Perth, Grey, Northern Wellington and northern Waterloo Counties at 3:15 p.m. The most severe storms on radar appeared to be from Meaford to Perth County. Initial on site observations of the severity of the storms were received by the Ontario Weather Centre at around 4:00 p.m. indicating that 2 cm hail and very high winds had occurred near Meaford and in the Dundalk area. However, no damage was indicated up to that time.

Around 4:00 p.m. radar revealed a line of severe thunderstorms from near Collingwood to Eastern Perth County. The line was moving east at 60 to 70 km/h. At 3:45 p.m. severe thunderstorm warnings were in effect to cover areas downstream as far east as Simcoe County and northern Peel Counties. Between 4:20 and 4:40 p.m. there were indications that the southern end of the line was intensifying and at 4:53 p.m. warnings were issued to cover the counties along the west end of Lake Ontario from Hamilton-Wentworth to

* These severe thunderstorm warnings issued by the Ontario Weather Centre contained the statement: "Remember some severe thunderstorms produce tornadoes."

3. The Severe Weather Event and the Severe Weather Warnings - Cont'd...

Durham and Victoria Counties. Following a confirmed report of a tornado at Shelburn, a tornado warning was issued at 5:00 p.m. for Southern Simcoe, Northern Peel and York Counties.

Reports of the tornadoes at Grand Valley and Barrie were received by the Ontario Weather Centre at 5:00 and 5:20 p.m. respectively. Tornado warnings were issued at 5:40 p.m. for the downstream areas of Northern Durham, Victoria and Haliburton counties. Radar reports between 5:20 and 5:40 p.m. also indicated the very rapid development of storms moving across Eastern Lake Erie to the Niagara Peninsula. As a result at 5:50 p.m. severe storm warnings were issued for the Haldimand-Norfolk and Niagara Regional municipalities.

Further details on tornadoes in Orangeville and in the Tottenham area came in to the Ontario Weather Centre between 5:30 and 6:00 p.m. Based on the continuing strength of the radar echoes, tornado warnings were extended to Southern Durham and Peterborough Counties at 6:05 p.m. and to Haliburton, Northumberland, Prince Edward and Hastings counties at 6:25 p.m. At 7:00 p.m. all watches and warning messages were cancelled for all regions except for Haliburton and Lake Ontario east of Oshawa. Between 6:40 and 7:20 p.m. reports were received of tornadoes just southwest of Peterborough and in Rawden Township of Southern Hastings county.

At 7:10 p.m. the tornado warning was extended east again to include Lennox and Addington, Renfrew and Frontenac counties which mark the eastern most areas served by the Ontario Weather Centre. At about the same time the Quebec Weather Centre in Montreal, which handles forecasts for the Ottawa - Cornwall and vicinity, was notified of the continuing presence of tornadoes in the storms headed their way.

Finally at 9:20 p.m. the remaining watches were cancelled for Eastern Ontario.

4. Tornado Paths and Estimated Time of Occurrence

The tornado paths and time estimates contained in this report were determined from aerial surveys and on-site investigations of the tornado paths by Ontario Weather Centre staff, from provincial police reports, photographs, newspaper clippings, weather watcher reports, eye witness accounts, etc. Only information assembled before June 10th was available to prepare this report.

General information concerning all tornadoes and other related reports of severe weather are given in this section mostly in map form. Detailed accounts for individual tornadoes are provided in the next section.

4. Tornado Paths and Estimated Time of Occurrence - Cont'd...

Numerous reports of large hail and damaging winds were received on May 31st as the severe thunderstorms developed and moved across Southern Ontario. In particular, over the Southern Niagara Peninsula hail as large as softballs was reported. Fortunately, these storms missed the fruit belt north of the escarpment. However, in the Welland and Port Colbourne areas there was numerous reports of damage to cars and property due to the extremely large hailstones. An estimated 40 people suffered minor cuts due to flying glass. Preliminary reports are that damage in excess of \$1 million resulted from this hail storm.

The general area affected by severe thunderstorm activity as determined from reports received to date is depicted in Figure 1. This figure also shows the approximate location of all tornadoes confirmed to date.

Figures 2, 3 and 4 depict the tornado paths in different parts of Southern Ontario as determined from the investigation using all information sources. Estimated times of occurrence (Eastern Daylight Saving Time) are also shown for various points along the tornado paths. In most cases these were determined from eye witness accounts or weather watch reports. The lengths of the individual tornado paths are also shown in these figures. It should be noted that the tornado paths from Mount Forest to Barrie may have resulted from different tornadoes formed under the same severe thunderstorm complex.

Table I. provides a detailed comparison of the time of occurrence of tornadoes in each county with the time of issue of severe thunderstorm warnings and tornado warnings. For counties west of Lake Simcoe severe thunderstorm warnings were issued 45 minutes to 1 hour in advance of the occurrence of the tornadoes. From Lake Simcoe eastward, once tornadoes had been reported, tornado warnings were issued 15 to 45 minutes in advance of the tornado occurrences.

5. Damage and Descriptions of Individual Tornadoes

Investigations over the past week have brought to light 9 separate damaging tornadoes across Ontario on May 31, 1985. The following is a description of each of these storms in the chronological order they first touched down. Figures 2 through 5 show the tracks of these storms.

5.1 Rush Cove Tornado - Figure 4

About 3:00 p.m. a small tornado touched down about 1.6 km southwest of the coast of Georgian Bay near Rush Cove and moved northeast out over Barrow Bay. Rush Cove is located about 25 km due north of Wiarton. One barn and three outbuildings were completely destroyed. One older house had its chimney blown off, siding torn off, and windows blown out. A 9 metre sailboat was lifted from a trailer and dropped 1200 metres away. There were no reports of any personal injuries with this storm.

5.2 Barrie Tornado - Figure 2

About 4:10 p.m. a funnel cloud dipped down from a severe thunderstorm in Egremont Township about 4 km southwest of Hopeville. For the next 50 minutes the severe thunderstorm travelled east-northeastward at 75 km/h over a distance of 85 km. It appears to have generated a series of 5 tornadoes which culminated in the devastating storm which struck southern portions of the city of Barrie. It is also conceivable that the damage paths could have resulted from one or two tornadoes touching down more than once.

a) Damage Area 1 (Hopeville)

Three concessions southwest of Hopeville to near Grey County Road 8.

Path Length: 17 km (the storm may have skipped occasionally)

Time: about 4:10 p.m.

Description of Damage: numerous barns and outbuildings were destroyed or severely damaged. Only minor damage to houses was indicated. No injuries were reported.

b) Damage Area 2 (Corbetton)

From 1 km southwest of Corbetton, a village southeast of Dundalk on Highway 10, to near Randwick at the intersection of Airport Road and the 25th Sideroad of Mulmur.

Time: struck Corbetton area at 4:17 p.m.

Path Length: 35 km

Description of Damage: the width of the damage path averaged 200 to 300 metres to just south of Honeywood where it narrowed to 50-100 metres. Through this area about 15 barns or outbuildings were destroyed and about 10 houses were heavily damaged. Cars and trucks were tossed around with some moved 60 metres. The storm continued to just south of Ruskview where it appears that a split occurred. A weakening portion appears to have lifted off the ground and moved northeast. Debris was found several km north of Ruskview. One sign which originated near Highway 24 was discovered near the hamlet of Glencairn. It had travelled about 20 km. The southern part of the storm moved from south of Ruskview to south of Randwick where it also appears to have lifted off the ground.

c) Damage Area 3 (Lisle)

Two concessions east of Randwick the tornado appears to have touched down again. Tree damage is reported as far east as Camp Borden. Two barns were destroyed near Lisle. Investigators were not allowed onto Camp Borden but reports from the Base Police and aerial surveys indicate little damage on the Base and no damage further east.

d) Damage Area 4 (Essa)

South of Essa.

A brief touchdown occurred just South of Essa. A half km long track of tree damage was evident from aircraft investigations. Apparently no buildings were damaged.

e) Damage Area 5 (Barrie) - Figure 5

The final and most dramatic touchdown began about 2 km northwest of Holly. The path of the tornado through the city of Barrie is given in Figure 5. The tornado crossed Ardagh Road about 1 km west of Crawford Road. In this area a plantation of 10 metre pine trees was totally destroyed. Aerial photographs indicate that the damage path was at least 600 metres wide in this area. Moving eastward the tornado was extremely strong with winds likely in excess of 400 km/h. Crossing Crawford Road towards Patterson the storm totally destroyed many houses. Cars were blown hundreds of metres into the bush. Further east with a width of 350 to 450 metres the storm crossed towards Highway 400. Twelve factories were destroyed just west of Highway 400 while at least 4 others near the edge of the track were heavily damaged. The storm moved just south of the Barrie racetrack with heavy damage to the horse barns and grandstand.

The tornado then moved into the Hillsdale subdivision. A townhouse complex on Adelaide was destroyed. Heavy damage occurred on Debra Crescent. Heavy damage was reported in a 300 metre swath from Marshall Street to Joanne Crescent. East of Tower Crescent the damage path narrowed abruptly to about 50 metres. Homes on Briar Road received only minor damage indicating the tornado may have lifted up somewhat. Yet at Trillium Crescent, the next street east, heavy property damage resulted. Further east the storm moved into an industrial area. Four warehouses were destroyed near Highway 11. The tornado crossed Yonge Street at Minets Point Road and headed towards the CNR tracks cutting a 100 metre wide swath through the trees. The storm hit the northwest corner of the Royal Oak Subdivision and felled many large trees. There was much less damage to houses here than in the Hillsdale Subdivision. The tornado next hit the Minet Point Marina. According to police reports thirty-five sailboats have completely disappeared. Amazingly, the heavy cement anchors embedded in the bottom of the lake holding the boats are also gone. Debris from the storm was spotted 5 km from shore on Lake Simcoe. No damage has been discovered on the opposite shore, although reports of debris from the tornado have been received from Oro township along the north shore of Lake Simcoe, Orillia and south of Bracebridge.

5.3 The Grand Valley-Tottenham Tornado - Figure 2

At 4:15 p.m., only a few minutes after the start of the storm which would hit Barrie, another tornado touched down just north of Arthur. This same tornado remained on the ground for an incredible 90 km as it tracked east-northeast at 85 km/h to the east end of the Holland Marsh. It then skipped along a further 17 km before lifting off for good near Mount Albert.

The damage path width varied from about 150 metres to 400 metres occasionally up to 600 metres wide. Nearly all structures within this track were damaged. Well over 100 homes were seriously damaged or destroyed with at least that many barns and outbuildings destroyed.

From Arthur to Grand Valley the damage path ranged from 150 to 400 metres wide. Estimates are that 40 buildings were seriously damaged or destroyed. In the town of Grand Valley an estimated 40 to 50 homes near the centre of the tornado track were destroyed. Winds with the tornado are estimated to have exceeded 400 km/h. Dozens of other buildings on the edge of the track suffered varying degrees of damage. One indication of the intensity of the storm was the roof of the Library being lifted and thrown 200 metres before crashing down on a house. Two people were killed in the town.

From east of Grand Valley to Orangeville the swath of damage continued 150 to 300 metres wide. The most noteworthy damage was at Mono Plaza north of Orangeville. The plaza was levelled. East of Orangeville all the way to Holland Marsh the damage swath continued with a similar degree of damage occurring. Particularly hard hit was the area just south of Tottenham where about 15 homes were extensively damaged or levelled and two deaths were reported. There was some evidence all along the track of a second weak swath of tree damage a few hundred metres south of the main track but little property damage has been noted.

The tornado moved down into the Holland Marsh just southeast of Dunkerron and followed the canal road eastward and then northeastward about 5 or 6 km. It destroyed hundreds of trees along the canal and did considerable damage to buildings along the north canal road. The tornado then headed directly eastward across the marsh hitting the village of Ansnorveldt after destroying three hydro transmission towers. East of the Holland Marsh the storm began skipping with less serious intermittent damage reported. The storm appears to have lifted off for the last time near Mount Albert.

5.4 Alma Tornado - Figure 3

Time: approximately 4:15 - 4:30 p.m.

Path Length: 33 km (continuous damage over 8 km skipping over remaining 25 km) Details of Damage: In Peel Township near Alma 4 houses were extensively damaged, 10 barns and outbuildings destroyed, some damage to 1 other house and 2 boats.

From East of Lake Belwood to just southeast of Dufferin County road 3 - a narrow path of damage - 1 house reported destroyed.

From County Road 3 to east of Hillsburgh - light damage, the tornado appeared to be aloft most of the time.

5.5 Wagner Lake Tornado - Figure 3

Time: 5:40 p.m.

Path Length: 5 km

Details of Damage: 1 barn demolished, some tree damage

5.6 Reaboro Tornado - Figure 3

Time: 6:05 p.m.

Path Length: 8 km

Details of Damage: 2 barns heavily damaged, 1 shed levelled, scattered tree damage.

5.7 Ida Tornado - Figure 3

Time: 6:20 p.m.

Path Length: 9 km

Details of Damage: Church 1 km south of Ida badly damaged. Stone home across street completely destroyed, spotty barn and tree damage further east along track.

5.8 Rice Lake Tornadoes - Figure 3

Time: 6:20 - 6:30 p.m.

Path Lengths: 7 km and 11 km

Details of Damage: 5 barns destroyed. House trailers blown over, several boats sunk, several cabins destroyed, hundreds of trees with diameters up to 1 metre downed. Estimates of damage of to \$2 million mainly in Birdsall Beach area.

5.9 Minto Tornado - Figure 3

Time: 6:35 p.m.

Path Length: 1 km

Details of Damage: very narrow path of damage 10 - 15 metres wide. Two large barns and two wooden sheds destroyed.

6. Recommendations

The following recommendations are made as a result of the preliminary investigation conducted by the Ontario Weather Centre.

- 6.1 A public education program needs to be undertaken to make people more aware of the nature of severe storms. For example there seems to be a widespread misconception that severe thunderstorms and tornadoes are independent events. Also, the public in general, and emergency officials in particular, need to understand the steps they should take when a watch is in effect; when a warning is in effect; or, when a severe storm appears imminent.
- 6.2 The methods in use for distributing warnings to the public and to emergency officials needs to be reviewed in detail.
 - a) Consultation with the media and emergency officials should be an integral part of this review.
 - b) Evaluation of the public awareness of and reaction to Environment Canada's weather watches and warnings should be undertaken.
- 6.3 The Weather Centre needs to improve its ability to detect severe thunderstorms and tornadoes:
 - a) Doppler Radar has been shown to be a fairly effective, though far from a foolproof method of detecting severe thunderstorms which may produce tornadoes. Research should be accelerated to assess the abilities of the newly acquired Doppler Radar at King City.
 - b) Additional severe weather watchers in rural areas of Ontario especially upstream of population centres need to be recruited.
 - c) The Ontario Weather Centre should undertake a development project with a view to identifying any new knowledge resulting from this survey and report the data collected on this storm that would improve future forecasts.
 - d) The Ontario Weather Centre will review its severe weather procedures in consultation with other regional units in view of the May 31st experience.

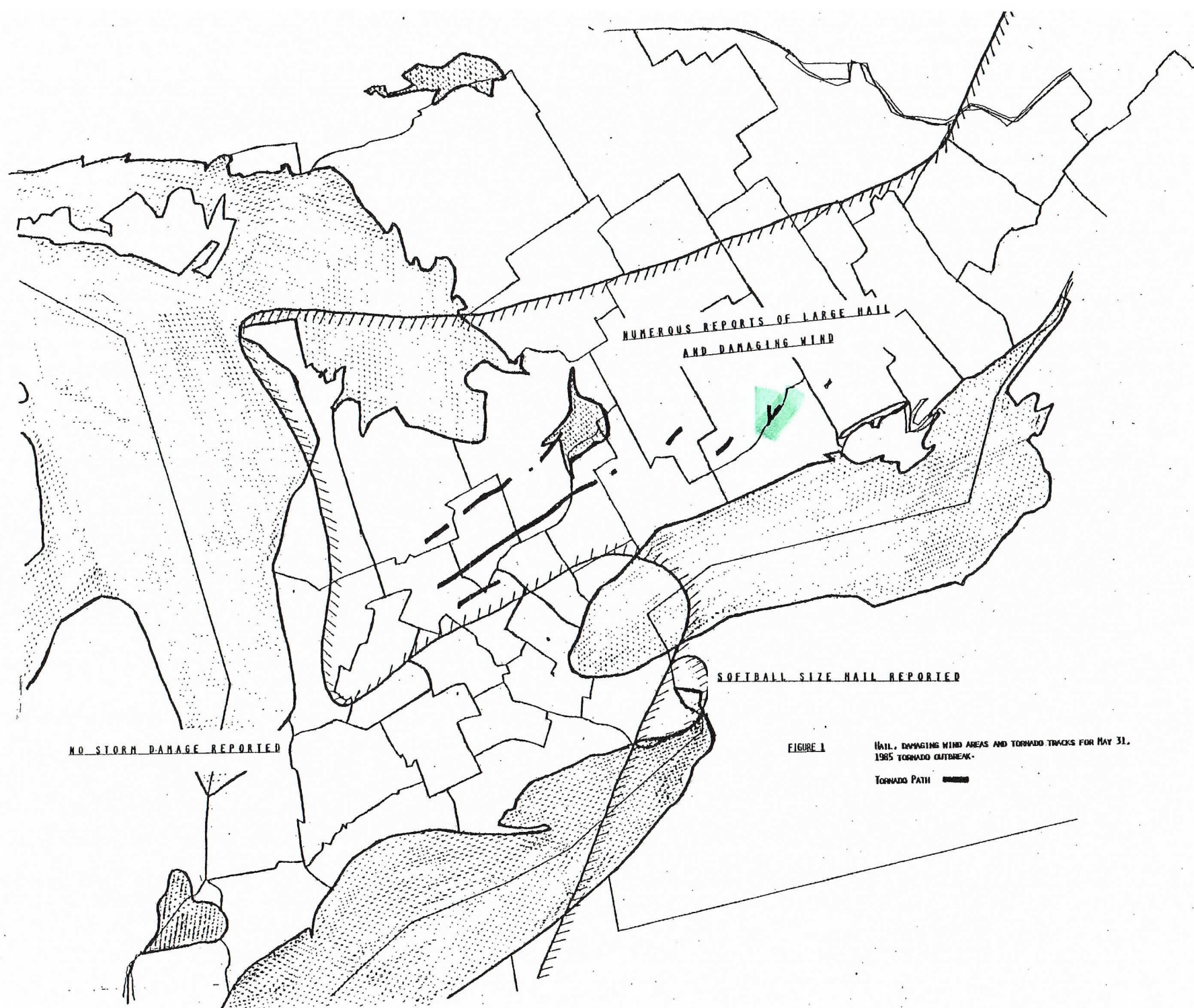
7. Conclusion

Tornadoes do occur in Southern Ontario though the majority of them are fairly weak and small scale. Storms of the power of the May 31st, 1985 event, though much less frequent, have occurred in the past and will occur again. As populations through Ontario increase, especially in more and more centres, the odds will increase of further major tornado events occurring in populated centres. Through education and further research, Environment Canada's goal should be to give the public a better understanding of the nature of these storms, and in conjunction with other federal and provincial agencies, and the media, a longer warning time in which to take action, and a knowledge of the steps to take to protect themselves in the event of severe storms.

TABLE ITime of Occurrence of Tornadoes by County

<u>Counties</u>	<u>Issue Time of * Severe Thunderstorm Warning</u>	<u>Issue Time of Tornado Warning</u>	<u>Time of Actual Storm</u>
Northern Bruce	2:25 p.m.	-	3:00 p.m. Rush Cove Tornado
Northern Wellington	3:15 p.m.	-	4:15 p.m. Tornado Touchdown near Arthur
Dufferin	3:54 p.m.	-	4:28 p.m. Grand Valley 4:45 p.m. Orange- ville
Southern Grey	3:15 p.m.	-	4:17 p.m. Tornado Touchdown near Corbetton
Southern Simcoe	3:54 p.m.	5:00 p.m.	5:18 p.m. Holland Landing.
Northern Simcoe	3:54 p.m.	-	5:00 p.m. Barrie
Northern York	4:53 p.m.	5:00 p.m.	5:25 p.m. Holt
Northern Durham	4:53 p.m.	5:20 p.m.	5:40 p.m. Wagner Lake
Southern Victoria	N/A	5:20 p.m.	6:05 p.m. Reaboro
Southern Peterborough	N/A	6:05 p.m.	6:20 p.m. Cavan 6:25 p.m. Birdsall
Southern Hastings	N/A	6:25 p.m.	6:35 p.m. Minto

* These severe thunderstorm warnings issued by the Ontario Weather Centre contained the statement: "Remember some severe thunderstorms produce tornadoes."



NO STORM DAMAGE REPORTED

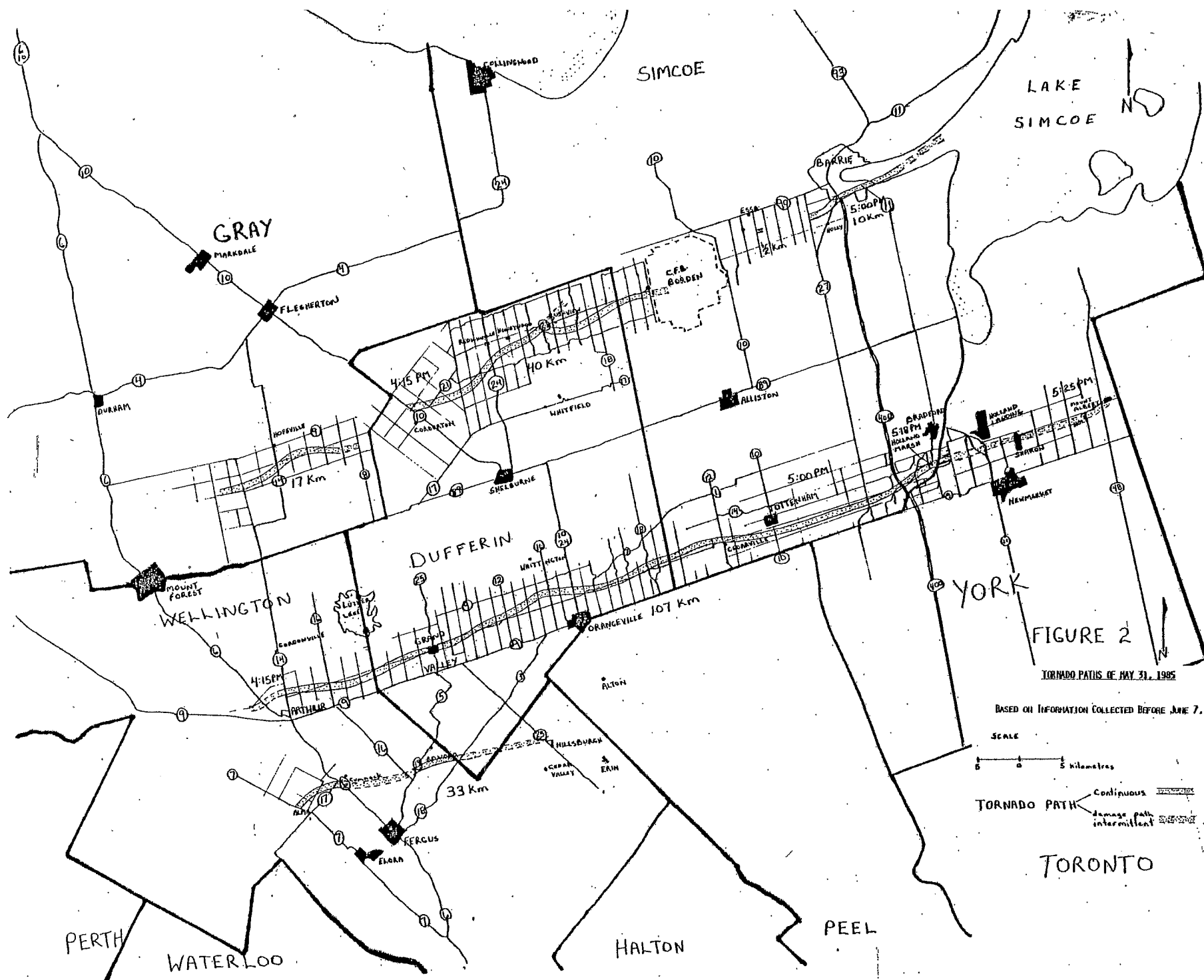
NUMEROUS REPORTS OF LARGE HAIL
AND DAMAGING WIND

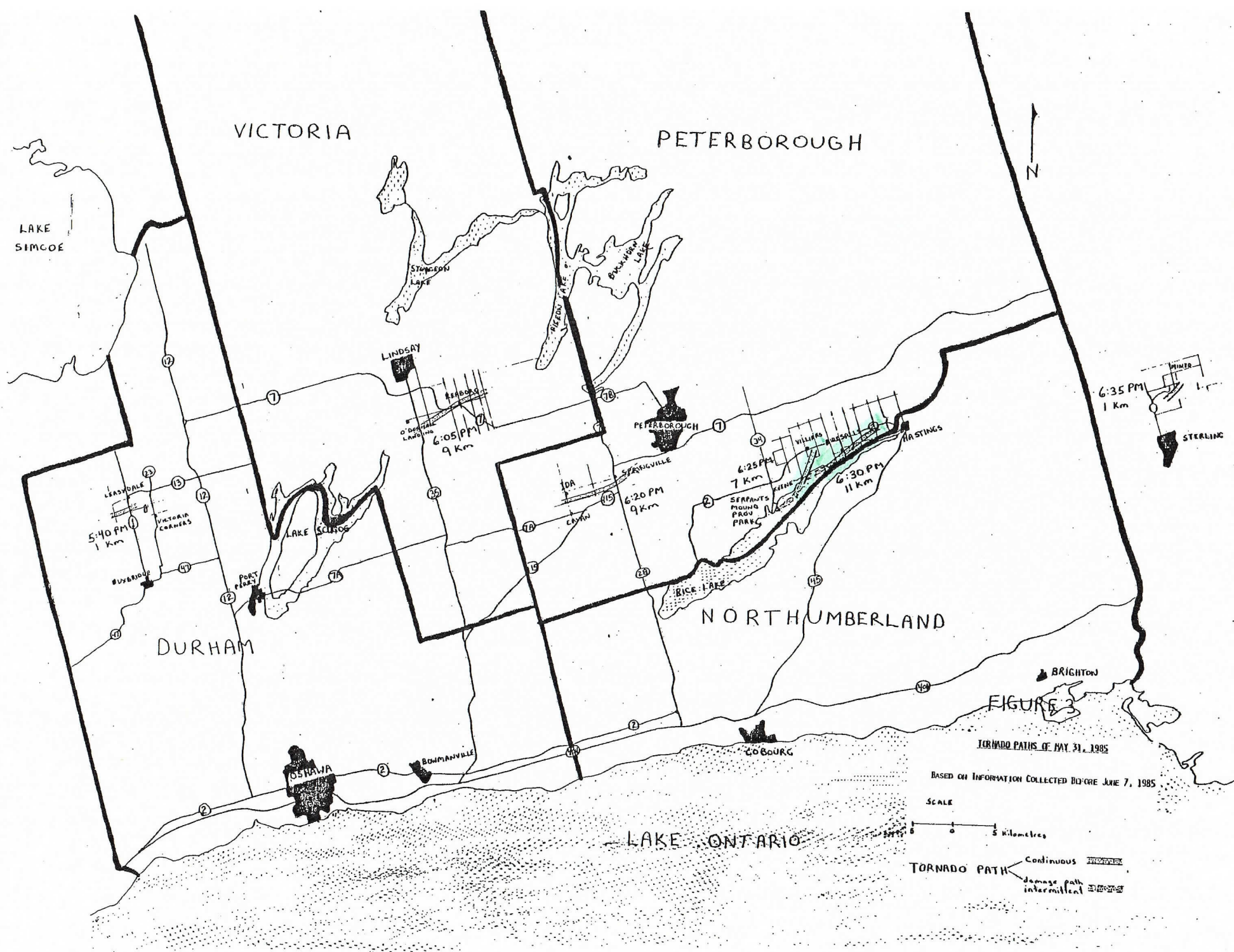
SOFTBALL SIZE HAIL REPORTED

FIGURE 1

HAIL, DAMAGING WIND AREAS AND TORNAO TRACKS FOR MAY 31,
1985 TORNAO OUTBREAK.

TORNAO PATH





TORNADO PATH OF MAY 31, 1985

BASED ON INFORMATION COLLECTED BEFORE JUNE 7, 1985

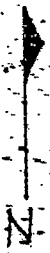
SCALE

5 0 5 Kilometres

TORNADO PATH



GEORGIAN BAY



LION'S HEAD

BARROW BAY

RUSH COVE

BARROW BAY

MELVILLE

SOUND

6

9

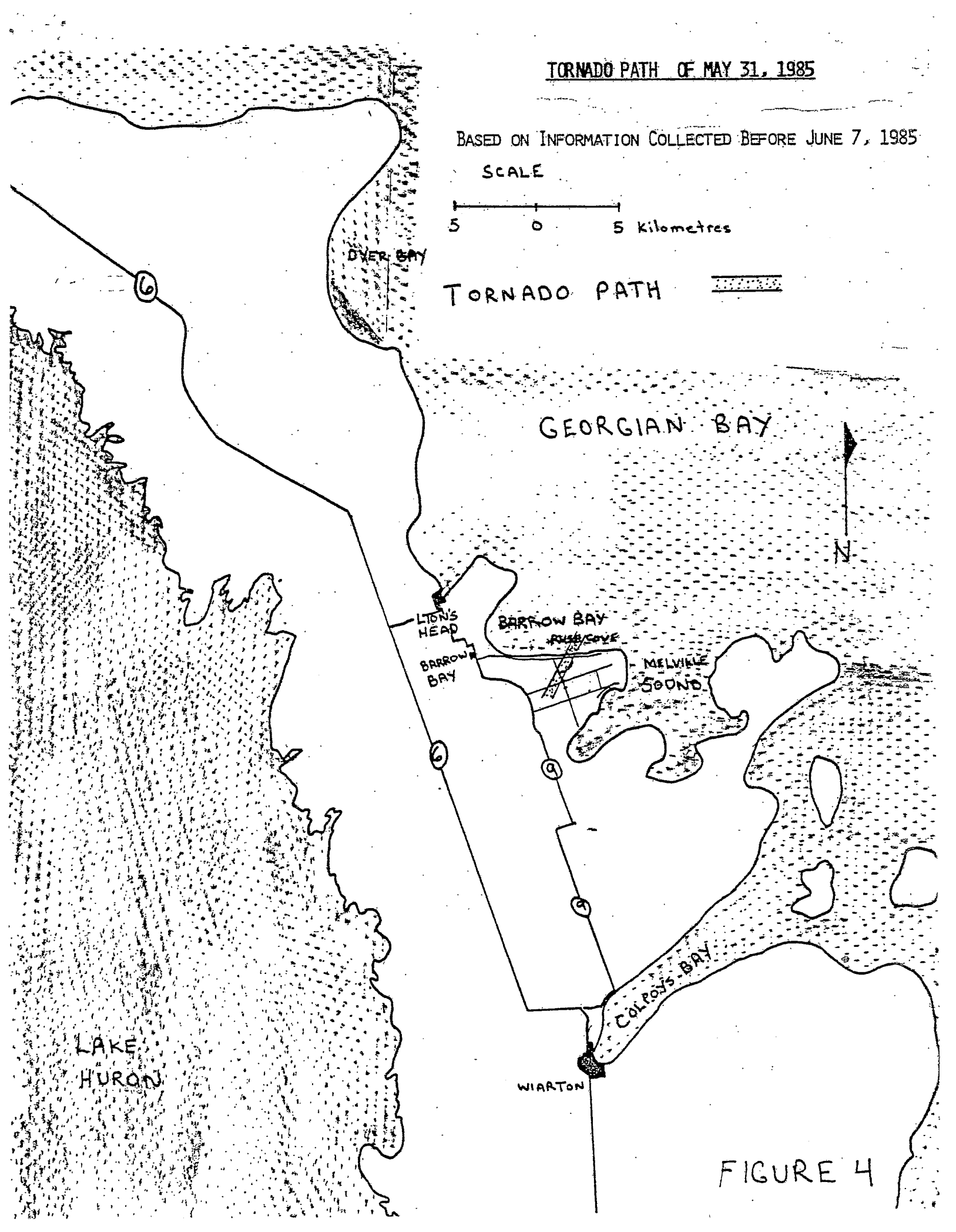
9

COLBOY'S BAY

WIARTON

LAKE HURON

FIGURE 4



TORNADO PATHS OF MAY 31, 1985

BASED ON INFORMATION COLLECTED BEFORE JUNE 7, 1985



FIGURE 5

Numbers are keyed to houses.
Tour distance approximately 5 km/3 mi.



CITY OF BARRIE
ENGINEERING DEPARTMENT

TORNADO PATH — Continuous
— damage path intermittent

5

T

6

T

STREET MAP

PRELIMINARY
ESTIMATE
FOR
TORNADO
DAMAGE
PATH

MINOR
DAMAGE

WARD 4

B

1

C

1

D

1

E

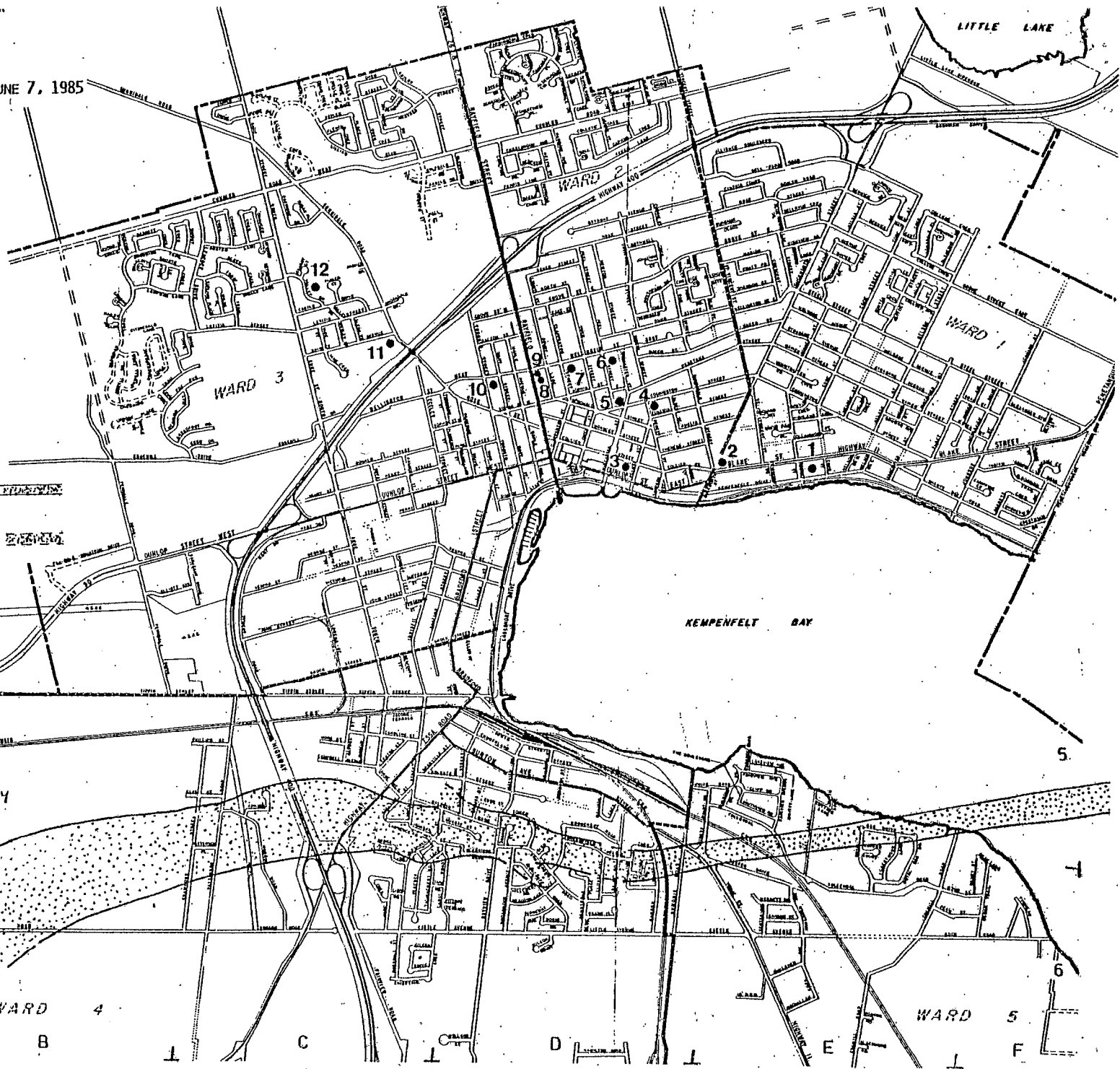
WARD 5

F

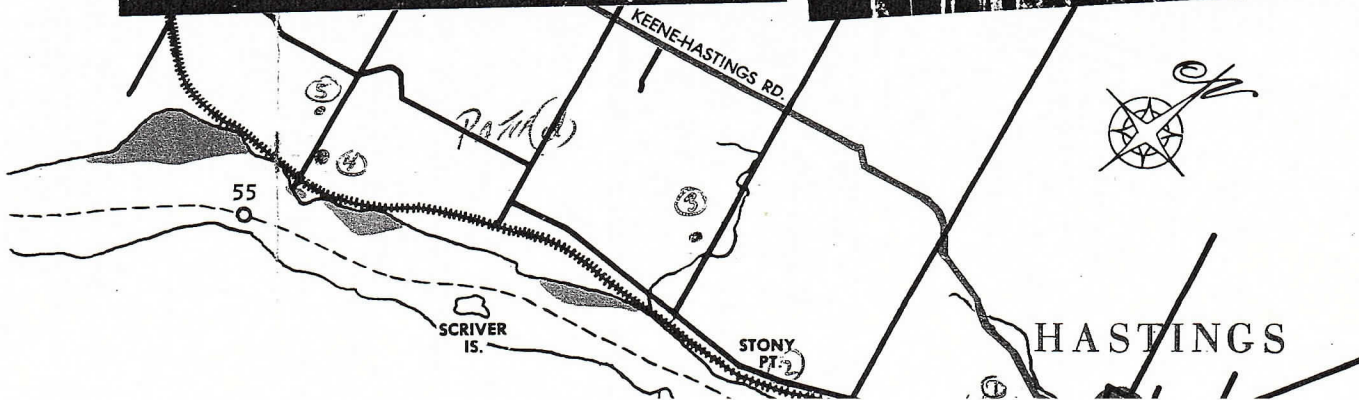
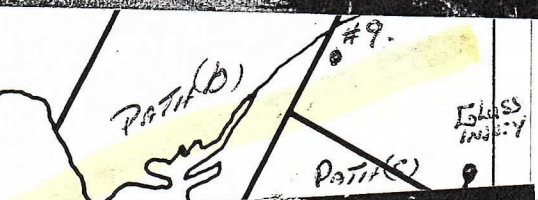
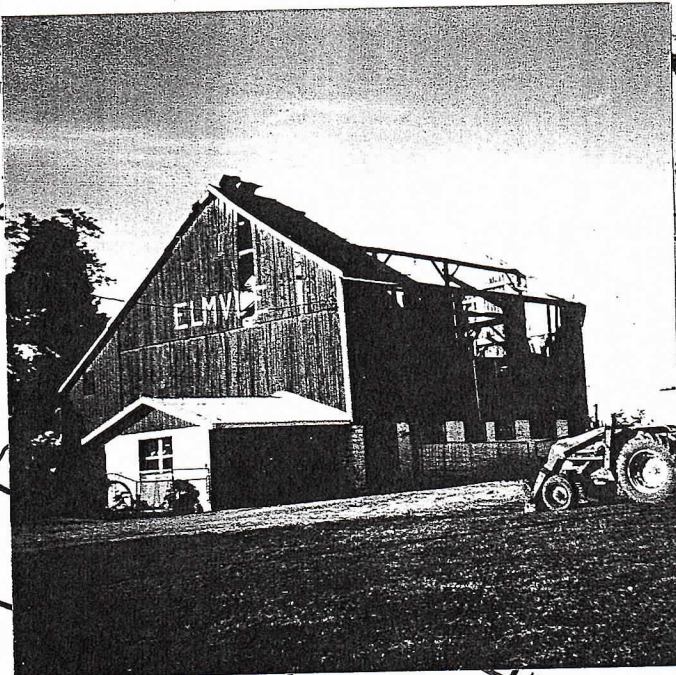
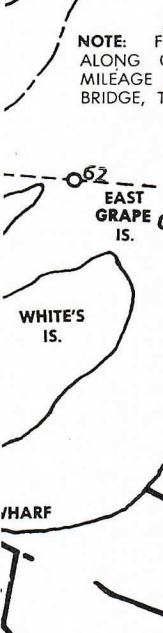
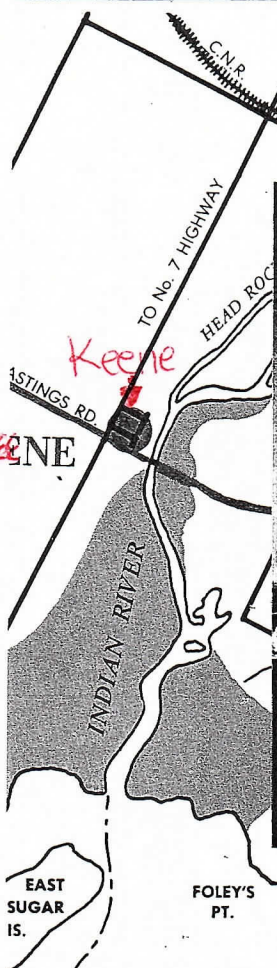
6

1

5



Rice 1-1



Rice Lake May 31/85

This was the most heavily damaged area of the three storm regions that we checked out.

Time:

Storm occurred on May 31/85 (6:20-6:30 PM EDT) and just a few minutes after the one in Cavan which is 25 KM to the west. Power went out some time before the storms hit.

Injuries

One injury reported from flying glass. More heavily populated because this is a Tourist Area. This area would have been more heavily populated if the storm would have occurred a few hours later or on Saturday.

Topography

Upslope from Rice Lake Northwards.

Damage

2 - 3 Million
Several old barns
Numerous trailers
Damage estimate does not include extensive damage to hundreds of trees and the shade they provided.

Summary

Rice Lake Reports:

From the attached reports it appears that there was one or more Tornadoes or Funnel Clouds over the East end of Rice Lake between 6:20 & 6:30 PM EDT. May 31/85.

View from the air by Mr. P. Elmhirst (Elmhirst-Lodge) suggests four main paths of destruction.

A: #10 Elmhirst resort North Eastwards towards Villiers (This storm may have veered Eastwards and took out J. Cameron's two barns. No Tornado or Funnel observed.

Miss Mary Jane Smith

This was the first time I saw the old lady since she was
born and she was very old.

Time:

Storm occurred on May 31st (0:00-0:30 in AM)
and just a few minutes after the one in 1931
which is the worst. However, it did
come time before the storm hit.

Time:

One day reported from living house. I was
heavily shocked because this is a terrible
area. This is a world where a few people
are still in the storm would have to have a
few more later on in history.

Time:

upside down when the storm hit.

Time:

2 - 3 million
Several old men
had been killed
because of the storm. It was not
the first time that they
had been killed.

Time:

Miss Mary Jane Smith
was the first person to see the storm. It was
one of the first times that she had seen
the storm. It was the first time that she
had seen the storm.

view from the air by Mr. P. Smith (Miss Mary
Jane) and her son, Mr. P. Smith.

10 minutes before the storm hit. The storm
was very bad. It was the first time that
the storm had hit. It was the first time
that the storm had hit.

Time:

Rice Lake

Con't:

- B: Birdsall's Point N E'wards through R. Elmhirst's Farm #9 - From damage and witness reports, a Tornado or at least Funnel Cloud crossed the area. Landmark- a 200 year old tree just south of Elmhirst's Farm tilted East wards at a 30 - 40 degree angle.
- C: Birdsall Beach #7 - NE'wds. through #8 then over to R.R.#3 Hastings (Bill Post injury) Severe storm causing extensive wind damage to trailers and trees.
- D: Through 6 #5 & 4 then possibly to 3 - Possible Tornado or Funnel Cloud.

Encl. Pictures - Map - Newspaper Clippings:

R. A. Lakage

Conf:

1. Directly to the ...
... from ... and ...
... of ...
... of ...
... of ...
2. Directly to the ...
... of ...
... of ...
... of ...
3. Through ...
... of ...

each. Pictures - ... - ...

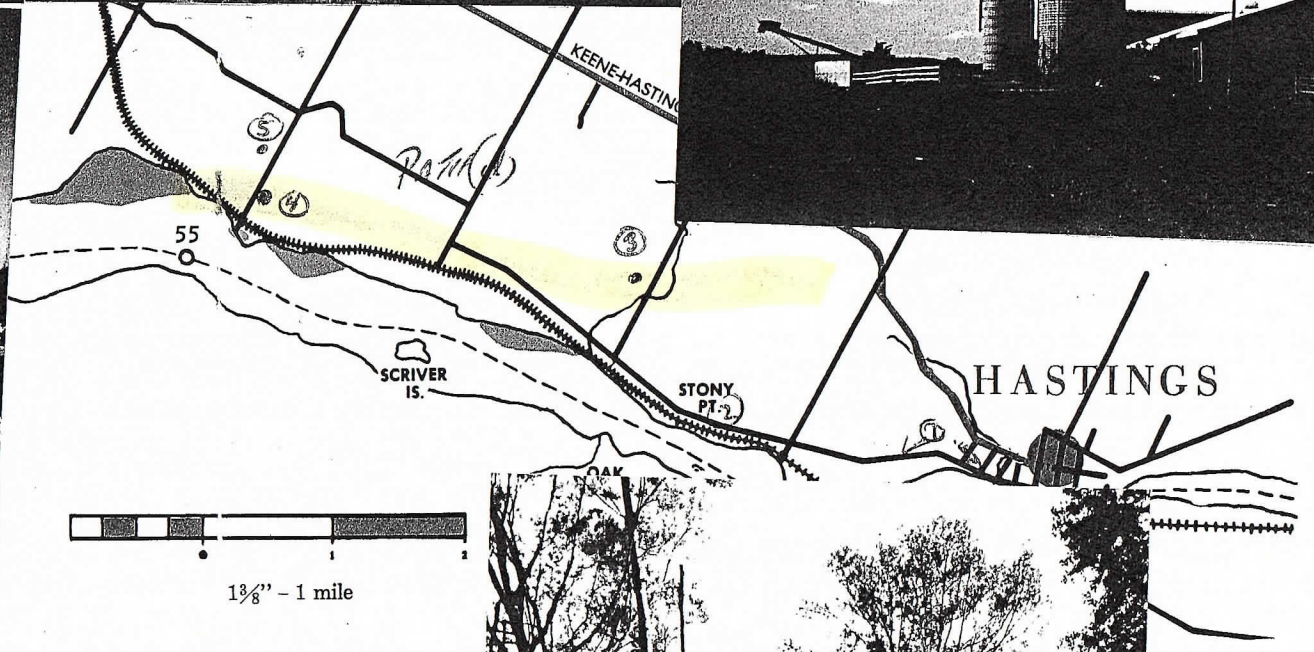
CURT
PT.

#5 barn flattened - 'old'

58

#5

#3



#4
Cabin Flattened

~ 6:30 pm
11 km track.



#4

PRICKLY
PT.

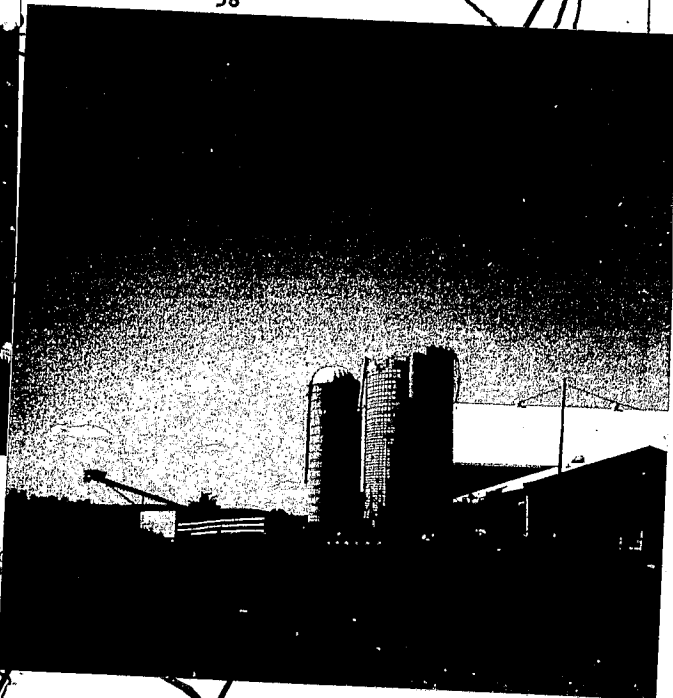
CURT
PT.

BIRDSALL'S
PT.

RICE LIKE MUSKIE
REARING POND

GOV'T WHARF

58



ALDERVILLE

RESERVE

INDIAN

KEENE-HASTING

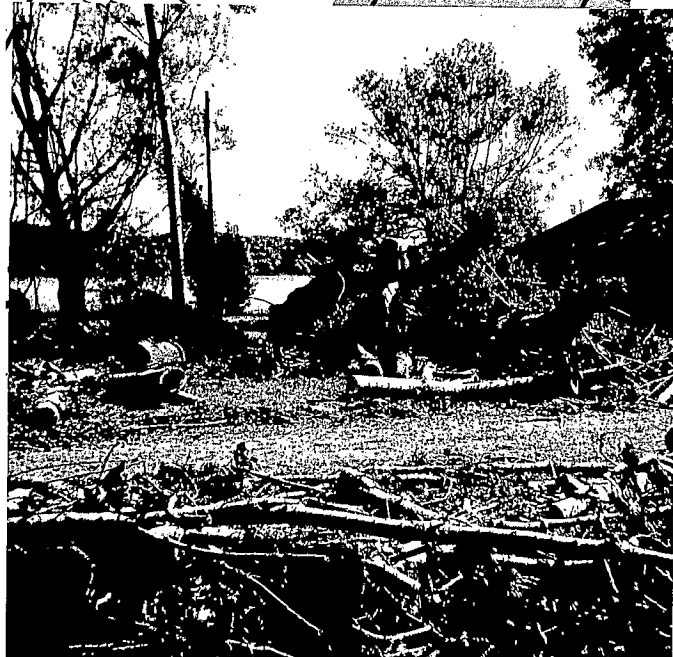
55

Path

HASTINGS

STONY
PT.

SWING
BRIDGE



Rice Lake #1 APPENDIX 2

Summer Severe Storm Survey

NAME OF INVESTIGATOR R. Larocque	INVESTIGATOR'S PHONE 705-7429737	DATE OF INVESTIGATION June 4th 1985
INVESTIGATOR'S ADDRESS 1844 Brimwood Cres. Peterborough Ontario. K9K 1R6		

1.	NAME(S) OF PERSON(S) INTERVIEWED SHEILA'S COFFEE HOUSE HASTINGS		
2.	ADDRESS (NOT RR#) OF THIS LOCATION Lot Con. Twp Co. or # street, town		
3.	PHONE NUMBER OF PERSON INTERVIEWED Area Code Number		
4.	(a) TIME AND DATE OF THE EVENT AT THIS LOCATION 6:30 P.M. May 31. 1985.		
	(b) HOW WAS THE TIME DETERMINED (STOPPED CLOCK, POWER FAILURE, MEMORY, A TIME-FIXING EVENT ETC) Power Failure		
5.	DESCRIPTION OF THE DAMAGE Nil. But very strong winds.		
6.	VISUAL SKY COLOUR? Y or N if yes, describe Sky very green		
7.	(a) HAIL? Y or N Yes. Very Brief		
	(b) HAIL SIZE (CIRCLE) PEA GRAPE WALNUT GOLF BALL TENNIS BALL OTHER 1" Hail UNKNOWN DIAMETER(MM)		
8.	RAIN, HOW MUCH?		
9.	(a) COMMENTS ON RELIABILITY OF WITNESS REPORTS		
	(b) DOES WITNESS KNOW OF OTHERS WHO WERE AFFECTED BY OR WITNESSED STORM? If yes:		
	Name	Address	Phone#
10.	ANY INJURIES RELATED TO STORM No		
11.	DOES EVIDENCE INDICATE NEED FOR DETAILED ON-SITE SURVEY? Y or N If Y contact Severe Weather MT OWC		

Rice Lake #2

APPENDIX 2

Summer Severe Storm Survey

NAME OF INVESTIGATOR R. LaRocque	INVESTIGATOR'S PHONE 705-7429737	DATE OF INVESTIGATION June 4th. 1985
INVESTIGATOR'S ADDRESS 1844 Brimwood Cres. Peterborough Ontario. K9K 1R6		

1.	NAME(S) OF PERSON(S) INTERVIEWED Agnes Vanleyden <i>Stoney Point Camp + Marina Hastings Ont P.O. Box 206 KOL 1Y0</i>			
2.	ADDRESS (NOT RR#) OF THIS LOCATION P.O. Box 206. Hastings Ont. KOL 1Y0 <i>3 6 Asphodel</i> Lot Con. Twp Co. or # street, town			
3.	PHONE NUMBER OF PERSON INTERVIEWED 705-696 2107 Area Code Number			
4.	(a) TIME AND DATE OF THE EVENT AT THIS LOCATION			
	(b) HOW WAS THE TIME DETERMINED (STOPPED CLOCK, POWER FAILURE, MEMORY, A TIME-FIXING EVENT ETC)			
5.	DESCRIPTION OF THE DAMAGE Very Little. Large tree broken- 3 trailers damaged-			
6.	VISUAL SKY COLOUR? Y or N if yes, describe			
7.	(a) HAIL? Y or N			
	(b) HAIL SIZE (CIRCLE) PEA GRAPE WALNUT GOLF BALL TENNIS BALL OTHER UNKNOWN DIAMETER(MM)			
8.	RAIN, HOW MUCH?			
9.	(a) COMMENTS ON RELIABILITY OF WITNESS REPORTS			
	(b) DOES WITNESS KNOW OF OTHERS WHO WERE AFFECTED BY OR WITNESSED STORM? If yes:			
	Name	Address	Phone#	
10.	ANY INJURIES RELATED TO STORM			
11.	DOES EVIDENCE INDICATE NEED FOR DETAILED ON-SITE SURVEY? Y or N If Y contact Severe Weather MT OWC			

APPENDIX 2

Summer Severe Storm Survey

NAME OF INVESTIGATOR R. LaRocque	INVESTIGATOR'S PHONE 705-742 9737	DATE OF INVESTIGATION June 4th 1985
INVESTIGATOR'S ADDRESS 1844 Brimwood Cres. Peterborough Ontario K9K 1R6		

1.	NAME(S) OF PERSON(S) INTERVIEWED A.B. Crowley R.R.#3 Hastings.			
2.	ADDRESS (NOT RR#) OF THIS LOCATION 3 & 4 Con. 5 Asphodel Lot Con. Twp Co. or # street, town			
3.	PHONE NUMBER OF PERSON INTERVIEWED 705-696 2897 Area Code Number			
4.	(a) TIME AND DATE OF THE EVENT AT THIS LOCATION Friday May31 1985 6:25			
	(b) HOW WAS THE TIME DETERMINED (STOPPED CLOCK, POWER FAILURE, MEMORY, A TIME-FIXING EVENT ETC) Power stopped before storm (6:20)			
5.	DESCRIPTION OF THE DAMAGE Top 30 ft. of Silo (20 X 70) torn off and blown into west side of barn. four cattle will have to be destroyed.			
6.	VISUAL SKY COLOUR? <input checked="" type="radio"/> Y or N if yes, describe White-Gray Saw sheet of steel in the air. Complete White-Out.			
7.	(a) HAIL? <input checked="" type="radio"/> Y or N Yes			
	(b) HAIL SIZE (CIRCLE) PEA GRAPE <u>WALNUT</u> GOLF BALL TENNIS BALL OTHER UNKNOWN DIAMETER(MM)			
8.	RAIN, HOW MUCH?			
9.	(a) COMMENTS ON RELIABILITY OF WITNESS REPORTS Appeared to be honest. Loss on Silo \$20,000 (not insured) Barn was insured.			
	(b) DOES WITNESS KNOW OF OTHERS WHO WERE AFFECTED BY OR WITNESSED STORM? If yes: Attached			
10.	Name Address Phone# ANY INJURIES RELATED TO STORM No injuries. Loss of \$20,000.			
11.	DOES EVIDENCE INDICATE NEED FOR DETAILED ON-SITE SURVEY? Y or N If Y contact Severe Weather MT OWC			

Rice Lake #4

APPENDIX 2

Summer Severe Storm Survey

NAME OF INVESTIGATOR	INVESTIGATOR'S PHONE	DATE OF INVESTIGATION
R. LAROCQUE	705-7429737	June 4 1985
INVESTIGATOR'S ADDRESS		
1844 Brimwood Cres. Peterborough Ontario K9K 1R6		

1.	NAME(S) OF PERSON(S) INTERVIEWED		
	Hank and Greta Horvers		
	Sunnymead Cottages and Trailer Park, R.R. #3 Hastings Ontario K0L 1Y0.		
2.	ADDRESS (NOT RR#) OF THIS LOCATION		
	2 3	Asphodel	
	Lot Con. Twp Co. or # street, town		
3.	PHONE NUMBER OF PERSON INTERVIEWED		
	705- 696 2601	Area Code	Number
4.	(a) TIME AND DATE OF THE EVENT AT THIS LOCATION		
	May 31 1985.		
	A-Approx. 6:30 B- Power out twenty minutes earlier		
	(b) HOW WAS THE TIME DETERMINED (STOPPED CLOCK, POWER FAILURE, MEMORY, A TIME-FIXING EVENT ETC)		
	Power Failure		
5.	DESCRIPTION OF THE DAMAGE		
	3 Cabins totalled. 4 Cabins partially xx damaged. 1 car turned upside down. 1 tree ended up falling on car. West side of overhead boat slip cover ripped away. Damaged area $\frac{1}{4}$ mile long 100Ft. W. W. & E sides of trailer park sustained almost no damage.		
6.	VISUAL SKY COLOUR?		
	Y or N if yes, describe Sky very dark. Wall of water coming at you. (Trent River immediate south) Mr. Horvers said storm appeared to be coming from the S.W. and moving N.E.. Sky was funny (must mean strange or odd) Sky was very frightening. Storm was different looking from any other storm.		
7.	(a) HAIL?		
	Y or N		
	Yes		
	(b) HAIL SIZE (CIRCLE)		
	PEA	Other = Marble	WALNUT
	TENNIS BALL	GRAPE	GOLF BALL
	OTHER	UNKNOWN	DIAMETER(MM)
8.	RAIN, HOW MUCH? Lot of rain. Puddles all over. Some wet leaves from trees left imprint on sides of cabins when peeled away.		
9.	(a) COMMENTS ON RELIABILITY OF WITNESS REPORTS		
	Time of occurrence may be off. Lot # may be incorrect.		
	(b) DOES WITNESS KNOW OF OTHERS WHO WERE AFFECTED BY OR WITNESSED STORM?		
	If yes:		
	More damage one mile north.		
	Name	Address	Phone#
10.	ANY INJURIES RELATED TO STORM No. REMARKS Horvers run a snack bar small Bait Store. All Worms died in their containers that WERE refrigerated.		
11.	DOES EVIDENCE INDICATE NEED FOR DETAILED ON-SITE SURVEY?		
	Y or N If Y contact Severe Weather MT OWC		

Rice Lake #5

APPENDIX 2

Summer Severe Storm Survey

NAME OF INVESTIGATOR R. Larocque	INVESTIGATOR'S PHONE 705-7429737	DATE OF INVESTIGATION June 4th 1985
INVESTIGATOR'S ADDRESS 1844 Brimwood Cres. Peterborough Ontario K9k 1R6		

1.	NAME(S) OF PERSON(S) INTERVIEWED Pearl Humphries	R.R.#3 Hastings			
2.	ADDRESS (NOT RR#) OF THIS LOCATION 2&3 3 Asphodel Lot Con. Twp Co. or # street, town				
3.	PHONE NUMBER OF PERSON INTERVIEWED 705-696 2523 Area Code Number				
4.	(a) TIME AND DATE OF THE EVENT AT THIS LOCATION May 31st. 1985				
	(b) HOW WAS THE TIME DETERMINED (STOPPED CLOCK, POWER FAILURE, MEMORY, A TIME-FIXING EVENT ETC)				
5.	DESCRIPTION OF THE DAMAGE Lost two barns. 150 trees, Maple and Pine- Adjacent trees south side of house towards river felled, touching one another. another inwards				
6.	VISUAL SKY COLOUR? Y or N if yes, describe Eerie Green.				
7.	(a) HAIL? Y or N				
	(b) HAIL SIZE (CIRCLE) PEA GRAPE WALNUT GOLF BALL TENNIS BALL OTHER UNKNOWN DIAMETER(MM)				
8.	RAIN, HOW MUCH?				
9.	(a) COMMENTS ON RELIABILITY OF WITNESS REPORTS Humphries North of Sm Sunnymead Trailer Park. Lot number on Humphries or on Sunnymead Cabins seems to be incorrect. Two lot number 2's.				
	(b) DOES WITNESS KNOW OF OTHERS WHO WERE AFFECTED BY OR WITNESSED STORM? If yes:				
10.	<table style="width: 100%; border: none;"> <tr> <td style="width: 40%;">Name</td> <td style="width: 40%;">Address</td> <td style="width: 20%;">Phone#</td> </tr> </table>		Name	Address	Phone#
Name	Address	Phone#			
11.	DOES EVIDENCE INDICATE NEED FOR DETAILED ON-SITE SURVEY? Y or N If Y contact Severe Weather MT OWC				

Rice Lake 6 APPENDIX 2

Summer Severe Storm Survey

NAME OF INVESTIGATOR R. LaRocque	INVESTIGATOR'S PHONE 705-7429737	DATE OF INVESTIGATION June 4th. 1985
INVESTIGATOR'S ADDRESS 1844 Brimwood Cres. Peterborough ontario. K9K 1R6.		

1.	NAME(S) OF PERSON(S) INTERVIEWED John Pander		Holiday Pines Trailer Park, R.R.#3 Hastings Ont. KOL 1Y0	
2.	ADDRESS (NOT RR#) OF THIS LOCATION 2 1 Asphodel Lot Con. Twp Co. or # street, town			
3.	PHONE NUMBER OF PERSON INTERVIEWED 705-696 2691		Area Code	Number
4.	(a) TIME AND DATE OF THE EVENT AT THIS LOCATION May 31st. 1985 6:20-6:25 P.M. EDT.			
	(b) HOW WAS THE TIME DETERMINED (STOPPED CLOCK, POWER FAILURE, MEMORY, A TIME-FIXING EVENT ETC) Power Failure at 6:20 P.M.			
5.	DESCRIPTION OF THE DAMAGE Three Trailers Flipped Over. One Trailer forced into a tree. One Florida room torn off. One Canopy torn off. 100-150 trees lost. some Pine two feet in diameter. Trees can't be replaced. Lost of shade provided by the trees to the campers.			
6.	VISUAL SKY COLOUR? Y or N if yes, describe Black as :Hell: worst storm ever. Storm came from the South.			
7.	(a) HAIL? Y or N Yes - Less than 3 mm min. duration.			
	(b) HAIL SIZE (CIRCLE) PEA GRAPE WALNUT GOLF BALL TENNIS BALL <u>OTHER</u> Marble UNKNOWN DIAMETER(MM)			
8.	RAIN, HOW MUCH?			
9.	(a) COMMENTS ON RELIABILITY OF WITNESS REPORTS Con.#1 may be incorrect.			
	(b) DOES WITNESS KNOW OF OTHERS WHO WERE AFFECTED BY OR WITNESSED STORM? If yes:			
	Name	Address	Phone#	
10.	ANY INJURIES RELATED TO STORM NO. REMARKS Most of the trees from the river Northwards almost all the way to County Road #2 were down or damaged. Some stripped of bark, some twisted into shreds, while others were broken twenty feet off the ground. A good number of trees on both sides of concession felled towards north.			
11.	DOES EVIDENCE INDICATE NEED FOR DETAILED ON-SITE SURVEY? Y or N If Y contact Severe Weather MT OWC			

APPENDIX 2

Summer Severe Storm Survey

NAME OF INVESTIGATOR R. LaRocque	INVESTIGATOR'S PHONE 705- 8 429737	DATE OF INVESTIGATION June 4th 1985
INVESTIGATOR'S ADDRESS 1844 Brimwood Cres. Peterborough Ontario. K9K 1R6		

1.	NAME(S) OF PERSON(S) INTERVIEWED Mrs. McDonald		Birdsall Beach Trailer Park P.O. Box 61, Hastings Ont.	
2.	ADDRESS (NOT RR#) OF THIS LOCATION 2&3 #1 Lot Con. Twp Co. or # street, town			
3.	PHONE NUMBER OF PERSON INTERVIEWED 705-696 2116		Area Code	Number
4.	(a) TIME AND DATE OF THE EVENT AT THIS LOCATION May 31st. 1985 6:30 PM E.B.T.			
	(b) HOW WAS THE TIME DETERMINED (STOPPED CLOCK, POWER FAILURE, MEMORY, A TIME-FIXING EVENT ETC) Memory			
5.	DESCRIPTION OF THE DAMAGE Eleven trailers were flipped over, 6or7 of which were destroyed. All Sheds destroyed. Two Hydro Poles lifted fix right out of the ground. Numerous boats tipped and sunk. Owners trailer at N.E. corner of park flipped over and moved fifty feet north.			
6.	VISUAL SKY COLOUR? Y or N if yes, describe Yes. Sky Green.			
7.	(a) HAIL? Y or N Yes			
	(b) HAIL SIZE (CIRCLE): PEA GRAPE <u>WALNUT</u> GOLF BALL TENNIS BALL OTHER UNKNOWN DIAMETER(MM)			
8.	RAIN, HOW MUCH? Heavy. but brief.			
9.	(a) COMMENTS ON RELIABILITY OF WITNESS REPORTS Clippings attached.			
	(b) DOES WITNESS KNOW OF OTHERS WHO WERE AFFECTED BY OR WITNESSED STORM? If yes: Other damage reported in attached clippings			
10.	Name	Address	Phone#	
ANY INJURIES RELATED TO STORM				
11.	DOES EVIDENCE INDICATE NEED FOR DETAILED ON-SITE SURVEY? Y or N If Y contact Severe Weather MT OWC			

APPENDIX 2

Summer Severe Storm Survey

NAME OF INVESTIGATOR R. LaRocque	INVESTIGATOR'S PHONE 705 742 9737	DATE OF INVESTIGATION June 4th. 1985
INVESTIGATOR'S ADDRESS 1844 Brimwood Cres. Peterborough Ontario. K9K 1R6.		

1. NAME(S) OF PERSON(S) INTERVIEWED
John Mood
2. ADDRESS (NOT RR#) OF THIS LOCATION
1 1 Asphodel
Lot Con. Twp Co. or # street, town
3. PHONE NUMBER OF PERSON INTERVIEWED
705- 696 2705
Area Code Number
4. (a) TIME AND DATE OF THE EVENT AT THIS LOCATION
May 31st. 1985 6:25 PM EDT.
(b) HOW WAS THE TIME DETERMINED (STOPPED CLOCK, POWER FAILURE, MEMORY, A TIME-FIXING EVENT ETC)
Hydro off at 6:10 - Est. storm 10 to 15 minutes later.
5. DESCRIPTION OF THE DAMAGE
Six buildings destroyed (most of which were very old structures) No damage to house which was built in 1820. damage to E & NE of house. Old family diary records storm of 1850 worse. Con't over.
6. VISUAL SKY COLOUR?
Y or N if yes, describe
no
7. (a) HAIL?
Y or N Hail
(b) HAIL SIZE (CIRCLE)
PEA GRAPE WALNUT GOLF BALL
TENNIS BALL OTHER UNKNOWN DIAMETER(MM)
8. RAIN, HOW MUCH?
Heavy but brief
9. (a) COMMENTS ON RELIABILITY OF WITNESS REPORTS
Asked Marlene Mood about comments that she had apparently made re: multi fingered glove hanging from sky- Shedenied that she had made that comment.
(b) DOES WITNESS KNOW OF OTHERS WHO WERE AFFECTED BY OR WITNESSED STORM?
If yes:
Aparently John Cameron lost two barns 1st. line of Otonabee.
10. ANY INJURIES RELATED TO STORM
Name Address Phone#
Mr. Bill Post of R.R.#3 was cut by flying glass. Post was treated and released at Cambellford Memorial Hospital.
11. DOES EVIDENCE INDICATE NEED FOR DETAILED ON-SITE SURVEY?
Y or N If Y contact Severe Weather MT OWC

Con't Number 5:

Pile of rafters from one barn hurled 300 - 400 feet. Path of damage $\frac{1}{4}$ mile wide from lake towards N.E.

APPENDIX 2

Summer Severe Storm Survey

NAME OF INVESTIGATOR R. LaRocque	INVESTIGATOR'S PHONE 705 742 9737	DATE OF INVESTIGATION June 4th 1985
INVESTIGATOR'S ADDRESS 1844 Brimwood Cres. Peterborough Ontario. K9K 1R6		

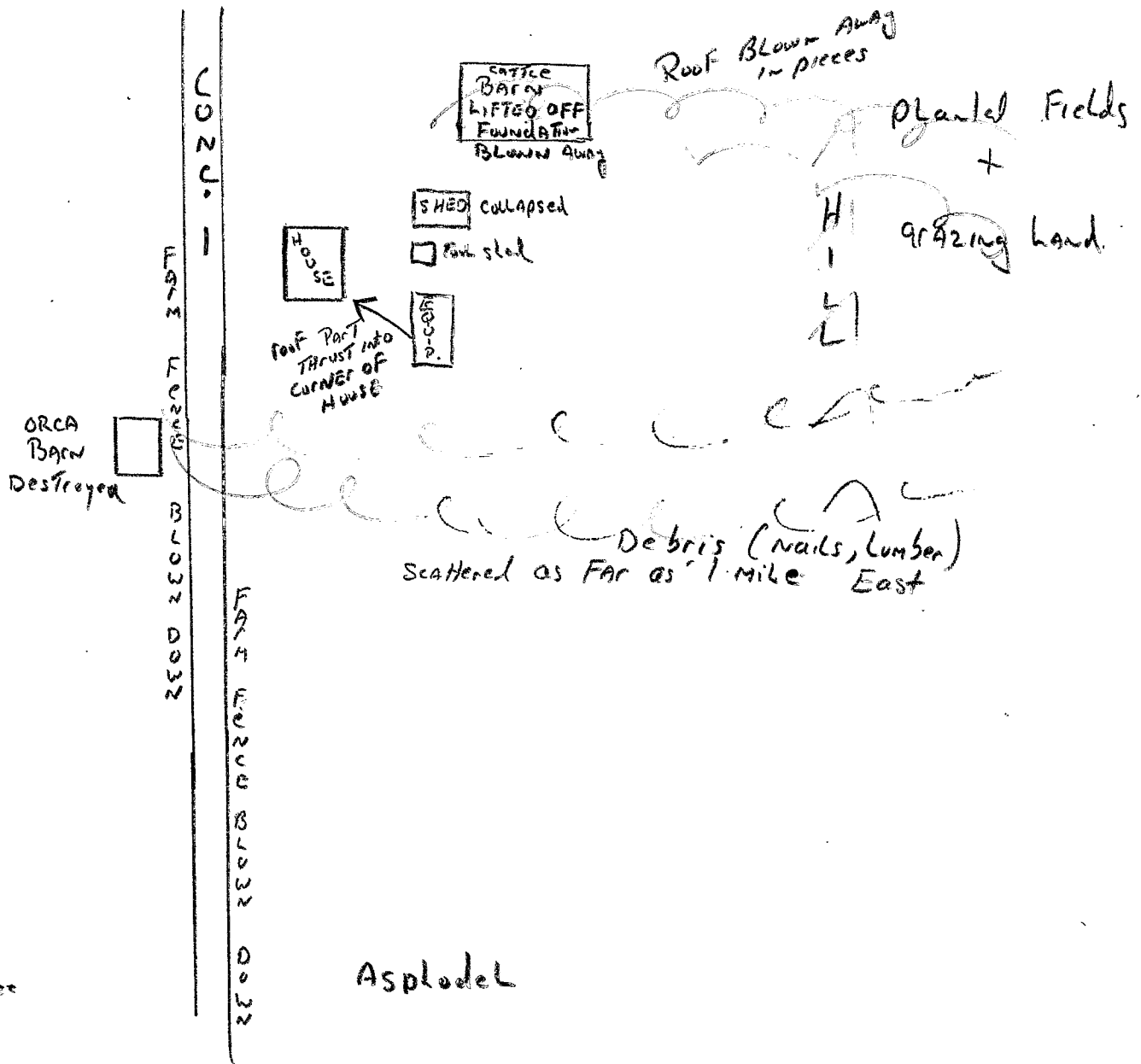
- NAME(S) OF PERSON(S) INTERVIEWED Birdsall Beach RD.,
R.R.#3 Hastings.Ont
tenant Mr. & Mrs. Stillman -(owners)Mr. & Mrs. R. Elmhurst.
- ADDRESS (NOT RR#) OF THIS LOCATION 3 1 Boundry between
Otonabee & Asphodel
Lot Con. Twp Co. or # street, town
- PHONE NUMBER OF PERSON INTERVIEWED
705- 696 3428 Area Code Number
- (a) TIME AND DATE OF THE EVENT AT THIS LOCATION
Approx. 6:30 PM May 31st.1985.
- (b) HOW WAS THE TIME DETERMINED (STOPPED CLOCK, POWER FAILURE, MEMORY, A TIME-FIXING
EVENT ETC)
Power Failure
- DESCRIPTION OF THE DAMAGE
See attached.
- VISUAL SKY COLOUR?
Y or N if yes, describe
- (a) HAIL?
Y or N Yes - Brief
- (b) HAIL SIZE (CIRCLE)
PEA GRAPE WALNUT GOLF BALL
TENNIS BALL OTHER EGG UNKNOWN DIAMETER(MM)
- RAIN, HOW MUCH?
- (a) COMMENTS ON RELIABILITY OF WITNESS REPORTS This family claimed a friend (Marlene Mood) saw a multi fingered glove hanging from the approaching clouds as she was driving home westwards. This was later denied by Marlene Mood. I feel she may have been such a sight but was reluctant to be pestered by Media on this point at a later date.
- (b) DOES WITNESS KNOW OF OTHERS WHO WERE AFFECTED BY OR WITNESSED STORM?
If yes:
- | Name | Address | Phone# |
|-------------------------------|---------|--------|
| ANY INJURIES RELATED TO STORM | | |
- DOES EVIDENCE INDICATE NEED FOR DETAILED ON-SITE SURVEY?
Y or N If Y contact Severe Weather MT OWC

Number 5: Description of the Damage:

Storm shifted one barn off it's foundation and destroyed half of another. Roof of one Equipment Shed was taken off and another collapsed. The house had a number of broken windows. The yard was in ruins with debris and felled trees all over the place. Some debris from the barns and property and also from another barn owned by Otonabee Region Cons. Authority strewn eastwardly one to two miles overgrazing land and planted fields. Nails, some of which were aluminum could kill the cows if eaten so an Agro. Crew were due in June 5th. to try and hand pick the nails. Magnets were also going to be inserted into one of the four stomachs of all the cows. This prevents the steel nails from entering the intestines and would stay fastened to the magnet for the rest of the cows life.

Min. damage inside the house also. All of the family complained of ears popping and said this storm was worse than Hurricane Hazel.

ELMHIRST FARM



APPENDIX 2

Summer Severe Storm Survey

NAME OF INVESTIGATOR R. Larocque	INVESTIGATOR'S PHONE 705- 742 9737	DATE OF INVESTIGATION June 6, 1985
INVESTIGATOR'S ADDRESS 1844 Brimwood Cres. Peterborough Ont. K9K 1R6		

1.	NAME(S) OF PERSON(S) INTERVIEWED P. Elmhirst- R.R.#1. Keen. Ont. H. Stenger- (guest) 543 Notre Dame Ave. Austintown. Ohio. Zip-44515. U.S.		
2.	ADDRESS (NOT RR#) OF THIS LOCATION 2 3 Otonabee Lot Con. Twp Co. or # street, town		
3.	PHONE NUMBER OF PERSON INTERVIEWED 705- 295 4591 Area Code Number		
4.	(a) TIME AND DATE OF THE EVENT AT THIS LOCATION May 31 1985. 6:15-6:30 pm. P. Elmhirst- 6:30 pm edt. H. Stenger. (b) HOW WAS THE TIME DETERMINED (STOPPED CLOCK, POWER FAILURE, MEMORY, A TIME-FIXING Mr. Stenger looked at the time because it was so bad outside EVENT ETC) he was wondering if he would be alive to see 7PM.		
5.	DESCRIPTION OF THE DAMAGE Numerous trees along N Shore of east end of park down Some of the trees had trunks 2 ft. in diameter, Hangar door damaged. Grills on Heat Pump facing west or SW ruined from hail. SEE CON'T.		
6.	VISUAL SKY COLOUR? P. ELMHIRST: Sky was dark to the W. then sky turned Y or N if yes, describe Florescent Green. Lightning W-NW all kinds. - All of a sudden a roaring noise became apparent from the SW. There was an 8 to 10 ft. wall of water approaching from the lake. Tree from Lake Shore spiralled by window. Time to take cover. SEE CON'T.		
7.	(a) HAIL? Y or N Yes: (b) HAIL SIZE (CIRCLE) PEA GRAPE WALNUT GOLF BALL TENNIS BALL OTHER UNKNOWN DIAMETER(MM)		
8.	RAIN, HOW MUCH? Brief but very heavy. Couldn't see 6 feet.		
9.	(a) COMMENTS ON RELIABILITY OF WITNESS REPORTS P. Elmhirst didn't suffer much damage so he did not have to lie or exaggerate. (b) DOES WITNESS KNOW OF OTHERS WHO WERE AFFECTED BY OR WITNESSED STORM? If yes:		
10.	ANY INJURIES RELATED TO STORM no		

CON'T #5:

One Airstream Trailer parked at east end of park heavily damaged by Hail.

CON'T #6:

One dock 60'X8' tossed over top of two other docks. Worst storm ever seen Lasted 6-7 minutes.

H.Stenger: While storm approach^ed from S W it picked up dock 60' by 8' and his 4,000. Lb. boat, turned it around and tossed it 20ft. away.