C

TORNADO PROJECT SUMMARY SHEET

F=0 ONT-QUE

1. DATE AND TIME 11.7.1969 1430 EST

2. LOCATION OR PATH (attach map) V CNTY PETAWAWA 0696919

3. PATH LENGTH ☐ NOT KNOWN ☐ <1mi; ☐ 1-4mi; ☐ 5-10mi; ☐ 11-50mi; ☐ LENGTH IF>50mi

4. PATH WIDTH ☐ 5. TORNADO PART OF SQUALL LINE? ☐ YES; ☐ NO; ☐ UNKNOWN:

6. ANY UNUSUAL COLORATION? ☐ YES; ☐ NO; ☐ UNKNOWN

7. ANY UNUSUAL SOUND? ☐ YES; ☐ NO; ☐ UNKNOWN

8. IF ANSWER TO 6 OR 7 YES, ELABORATE;

9. LIST ANY ASSOCIATED PHENOMENA (Such as hail, vivid lightning heavy rain, no rain, etc.) Hail for 15 or 20 min at Whitney, Ont Golf ball sized hail in Hamilton

10. TOTAL DAMAGE ESTIMATE $ U 11. TOTAL DEATHS NONE

12. TOTAL INJURED NONE 13. TOTAL HOMELESS U

14. LIST ALL REFERENCES

OTTAWA JOURNAL JULY 12, 1969
OTTAWA CITIZEN JULY 12, 1969
PEMBROKE OBSERVER, JULY 12, 1969

15. SUMMARIZE REMARKS PERTAINING TO (a) FUNNEL; (b) INTERESTING OR CAPRICIOUS EVENTS.

(a) no remarks.

(b) Trees broken + uprooted. Boats overturned.

WORKSHEET

IDTO 0696919

① ORIGIN x 1832525 0

y 5086200

② LIFT-OFF x_1 18329000

y_1 5085000

③ $(x_1 - x)$ = .3750

④ $(y - y_1)$ = 1200

⑤ Standard Error S_x 500 C

⑥ Standard Error S_y 2000 C

⑦ DAMAGE LENGTH

$$L = [(x_1 - x)^2 + (y - y_1)^2]^{1/2}$$

③+④ $\boxed{\rightarrow r,\theta}$ = 3937 m

⑧ $\alpha = \tan^{-1} \dfrac{|y - y_1|}{|x - x_1|}$

$\boxed{x \leftrightarrow y}$ = 1.8°

⑨ Standard Error $S_L = (S_x^2 + S_y^2)^{1/2}$

⑤+⑥ $\boxed{\rightarrow r,\theta}$ = 2061 m C

⑩ $\beta = \dfrac{\tan^{-1} S_L}{L}$

⑦+⑨ $\boxed{\rightarrow r,\theta}$

$\boxed{x \leftrightarrow y}$ = 28°

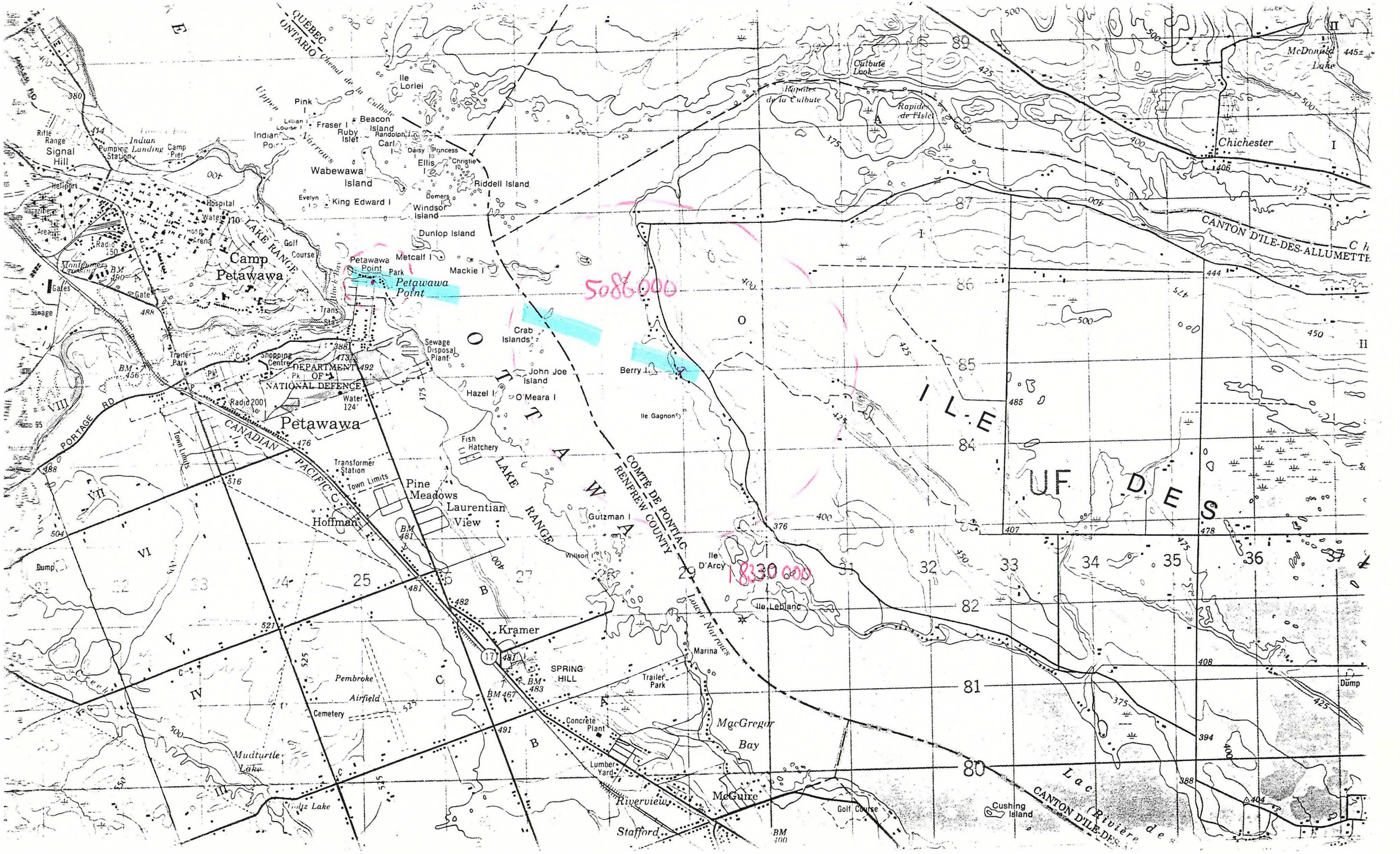
NE Quad $\phi = 90 - \alpha$

NW Quad $\phi = 270 + \alpha$

SW Quad $\phi = 270 - \alpha$

SE quad $\phi = 90 + \alpha$

⑪ ϕ = 288°


QUÉBEC
ONTARIO
Chenal de la Culbute
Upper Narrows
Lower Narrows
Ottawa
Ile Lorlei
Pink I
Lillian I
Louise I
Fraser I
Ruby Islet
Beacon Island
Randolph I
Carl I
Daisy I
Princess Is
Ellis I
Christie Is
Indian Point
Indian Pumping Station
Indian Landing
Camp Pier
Rifle Range
Signal Hill
Heliport
Wabewawa Island
Riddell Island
Evelyn I
King Edward I
Demers I
Windsor Island
Dunlop Island
Metcalf I
Mackie I
Hospital
Water Tower
Hospital Area
Radio
Golf Course
LAKE RANGE
Camp Petawawa
Petawawa Point Park
Petawawa Point
Montgomery Tower
BM 490
Gates
Gate
Sewage
Trans Stn
Trailer Park
Shopping Centre
DEPARTMENT OF NATIONAL DEFENCE
Water 124'
Radio 200
Petawawa
PORTAGE RD
Town Limits
CANADIAN PACIFIC
Transformer Station
Pine Meadows
Laurentian View
Hoffman
BM 481
Crab Islands
Sewage Disposal Plant
John Joe Island
Hazel I
O'Meara I
Fish Hatchery
LAKE RANGE
Berry I
Ile Gagnon
COMTÉ DE PONTIAC
RENFREW COUNTY
Gutzman I
Wilson I
Ile D'Arcy
Ile Leblanc
Kramer
SPRING HILL
BM 483
BM 467
Marina
Trailer Park
Pembroke Airfield
Cemetery
Concrete Plant
Lumber Yard
MacGregor Bay
Mudturtle Lake
Holtz Lake
Riverview
Stafford
McGuire
Golf Course
Cushing Island
Culbute Look
Rapides de la Culbute
Rapides de l'Isle
Chichester
McDonald Lake
CANTON D'ILE-DES-ALLUMETTE
ILE DES
Lac Rivière des
CANTON D'ILE-DES
5086000
1833000

[illegible]

Ottawa Journal, Ont.
Circ. 78,318
July 12, 1969

FRI JULY 11 1969

(1)

Savage Storms

From Page One

In many homes basement drains became geysers as flooded storm sewers backed up under high pressure. Ground floor toilets behaved similarly.

Two new cars owned by transport department employees, were flattened when a 100-year-old maple at Jones' Locks crashed to the ground. In another part of town a small European car was crushed by a tree.

Rows of wooden crosses at the town's cenotaph were tilted at a 30 degree angle southwards by the wind.

Smiths Falls works department crews were on the job at once cutting up fallen trees so traffic could resume.

A second, less severe storm, hit the town about 7 p.m..

Farmers in the area are assessing crop damage, but early reports indicate it was not too serious, as the hail storm apparently struck only urban Smiths Falls.

'ROOF WAS GONE'

In the Pembroke area, damage was heavy at Petawawa Point where several cottage roofs were caved in by falling pines.

The wind also took a heavy toll of trees on Allumette Island on the Quebec side of the Ottawa River.

A card game at the island home of Lorne St. Cyr was broken up when the lights went out.

"It was dark as night," said Mrs. St. Cyr. "Then there was this crash and part of the roof was gone."

A tarpaulin was rigged over the hole but not in time to save the interior of the house from water damage.

Boat owners reported craft flooded to a depth of eight inches during the 50-minute downpour.

Frank Dench, agricultural representative for Renfrew County, said he had received no reports of serious crop damage.

(819) Laurier 689-2898

OTTAWA JOURNAL JULY 12 1957

FRI JULY 12 1957

Savage Storms Slash Area Towns

Smiths Falls looked like a battleground Friday night after a brief but fierce pounding by hailstorm and 80 mph winds.

North of Smiths Falls a separate storm raked Pembroke for an hour with 70 mph winds.

No injuries were reported in either area.

"I guess you'd call it a hurricane," said Gary Stevens of Smiths Falls radio station CJET, which was knocked off the air for 2½ hours.

The storm which struck Smiths Falls came with no warning and lasted about five minutes.

Hundreds of trees were uprooted landing on rooftops, blocking streets and crushing parked cars. Power was out for an hour.

Hailstones, some of them half an inch in diameter pelted the town. Visibility was zero and storm sewers backed up, resulting in flooding of streets.

In the Pembroke area, two boats were upset in the Ottawa River, cottages were damaged and downed trees caused a two-hour hydro break.

Occupants of the boats, off Petawawa Point were rescued before the provincial police patrol boat could be launched.

"One minute the sun was shining and the next minute it turned black and started to pour rain," said Mr. Stevens in Smiths Falls.

In most downtown stores basements were flooded to a depth of five feet. Houses were also flooded and windows were cracked and smashed.

In the south end, where the first of the storm hit, television antennas were ripped from rooftops, aluminum siding torn from the walls of a home under construction, sailed in the wind like sheets of paper before falling to the ground a block away.

Highway traffic was delayed almost an hour as the Cornelia Street subway filled with four feet of water.

Turn to Page 5—STORMS

(1)

SMITH FALLS IS battered

THE SATURDAY CITIZEN
OTTAWA
JULY 12 1969

by wild storm

FRI JULY 11 1969

By David Smithers
Citizen staff writer

SMITHS FALLS — Floods, blocked streets, uprooted trees and darkened, damaged homes were left in the trail of a violent 10-minute storm that lashed the town Friday afternoon.

Towns further up the Ottawa Valley also reported similar destruction as the "hurricane-like" storm continued its rampage.

Winds rose, rain poured without warning

Skies blackened about 3.30 p.m., "and without any warning the winds rose and it started pouring rain, accompanied later by hailstones up to three-quarters of an inch in diameter," said Gary Stevens, of radio station CJET.

The station was put off the air for 2½ hours and most homes in the town were without power for up to three hours after the storm moved in.

Dozens of trees in the town were torn up by winds estimated to have gusted to 80 m.p.h.

Some sliced through hydro lines while others blocked streets and landed on top of two unoccupied cars. The roofs of several homes were also damaged by falling trees and limbs.

Streets flooded

The initial rainfall was so heavy that many streets were several inches deep in water.

The Chambers Street subway — in the east end of town — was flooded to a depth of about two feet and several cars were stranded.

Blinded by the deluge, other drivers stopped their vehicles wherever they were caught.

At least one accident in the area, involving a milk truck, was blamed on the heavy rain.

Gutters on some streets overflowed onto sidewalks and front lawns as storm sewers became overloaded.

"Branches of trees were snapping off like matchsticks," said one witness. "I saw a large tree just lifted out of the ground and flung down. There are leaves all over town. It's going to be quite a clean-up job."

Hail lay thick

When it was all over there were so many hailstones on the ground that it looked as though it had been snowing. Although damage was concentrated to the town, local farmers reported flattened hay and corn fields.

There were no injuries reported to police during the storm.

Weathermen said the storm was caused by two high pressure systems joining forces with a cold front.

Temperatures in the town dropped from 85 degrees at 3.15 p.m. to 61 at 3.30 p.m.

Thunder and lightning also accompanied the storm, which left Smiths Falls and swept up the Ottawa Valley to Pembroke and Petawawa where more damage was reported.

All but the hailstones moved into those communities and caused similar destruction.

Pembroke radio station CHOV was off the air from the time the storm struck at 4 p.m. for two hours while power to many homes was disrupted.

Trees were uprooted and thrown against power lines and at least one secondary road was blocked to traffic for several hours.

Provincial police reported several boats overturned in the Ottawa River off Petawawa Point, 10 miles west of Pembroke.

Only one was manned, they said. Two young boys were flung into the water as winds pitched over their canoe. They swam to shore.

Main property damage was reported to cottages nestled among tall pine trees bordering the Ottawa River.

One unoccupied car in the area was crushed beneath a fallen tree.

Area farmers reported heavy damage to crops and waterlogged fields.

Maintenance crews in all communities worked throughout the night to repair several hydro lines and clean trees and limbs from sidewalks and streets.

Canadian Press
Clipping Service

Pembroke Observer, Ont.
Circ. 7,818
July 12, 1969

PM FRI JULY 11 1969

1055

Crop Damage Reported After Storm Hits Valley

Damage from a flash storm that hit spots in the Upper Ottawa and Madawaska Valleys Friday afternoon did not result in extensive damage to property but some crop damage is reported by farmers in the area.

At Pembroke heavy rains, thunder and lightning accompanied by strong winds only lasted about 20 minutes. A few trees were reported to have blown over in parts of town and the local radio station's power was knocked out from 3:50 to 5:40 p.m.

At Petawawa Point ten miles west of here heavy winds caused several unmanned boats to turn over and two youths in a canoe had to swim to shore when their craft flipped over. A spokesman for the Ontario Provincial Police here said their rescue boat was summoned to the scene but they later found that it wasn't needed.

TREE FALLS

At Westmeath, 18 miles east of Pembroke, OPP reported a 1962 model car driven by David McGrath, 21, of RR 2, Pembroke sustained an estimated $200 when a poplar tree toppled on it about 3:30 p.m.

At Whitney, 60 miles south of here, heavy rain followed by clearing and then 15 or 20 minutes of heavy hail was reported by Constable Harold Spruce of Whitney OPP detachment. Constable Spruce said the hail stones were so large that they were bouncing more than a foot off the lawn in front of the detachment office.

In the French Settlement in Stafford Township, six miles south of town, farmers reported crop damage after about one-and-a-half hours of rain Friday and seven hours of rain late the previous night. They estimated that about half their corn and first cut of grain that hadn't been harvested could be ruined. One farmer said that over an inch and a half of rain covered his fields last night.

Heaviest storm damage was reported in Smiths Falls area, 120 miles southwest of here.

The storm, from all reports, missed Cobden and Deep River police reported only some rain.

Forecast Temperatures

Hamilton	65	85
St. Catharines	65	85
Toronto	65	85
Peterborough	60	85
Kingston	60	80
Owen Sound	60	80
Trenton	60	80
Killaloe	60	80
Muskoka	60	80
North Bay	55	80
Sudbury	55	80
Earlton	55	80