B

TORNADO PROJECT SUMMARY SHEET

F=2

ONT

1. DATE AND TIME 13·7·1973 (Friday) 1930 EDT

2. LOCATION OR PATH (attach map) TOUCHDOWN AT BRIGHTON.
DIRECTION OF TRAVEL NW TO SE

0697304

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

4. PATH WIDTH NOT KNOWN 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.)

10. TOTAL DAMAGE ESTIMATE $ 100,000 11. TOTAL DEATHS NONE

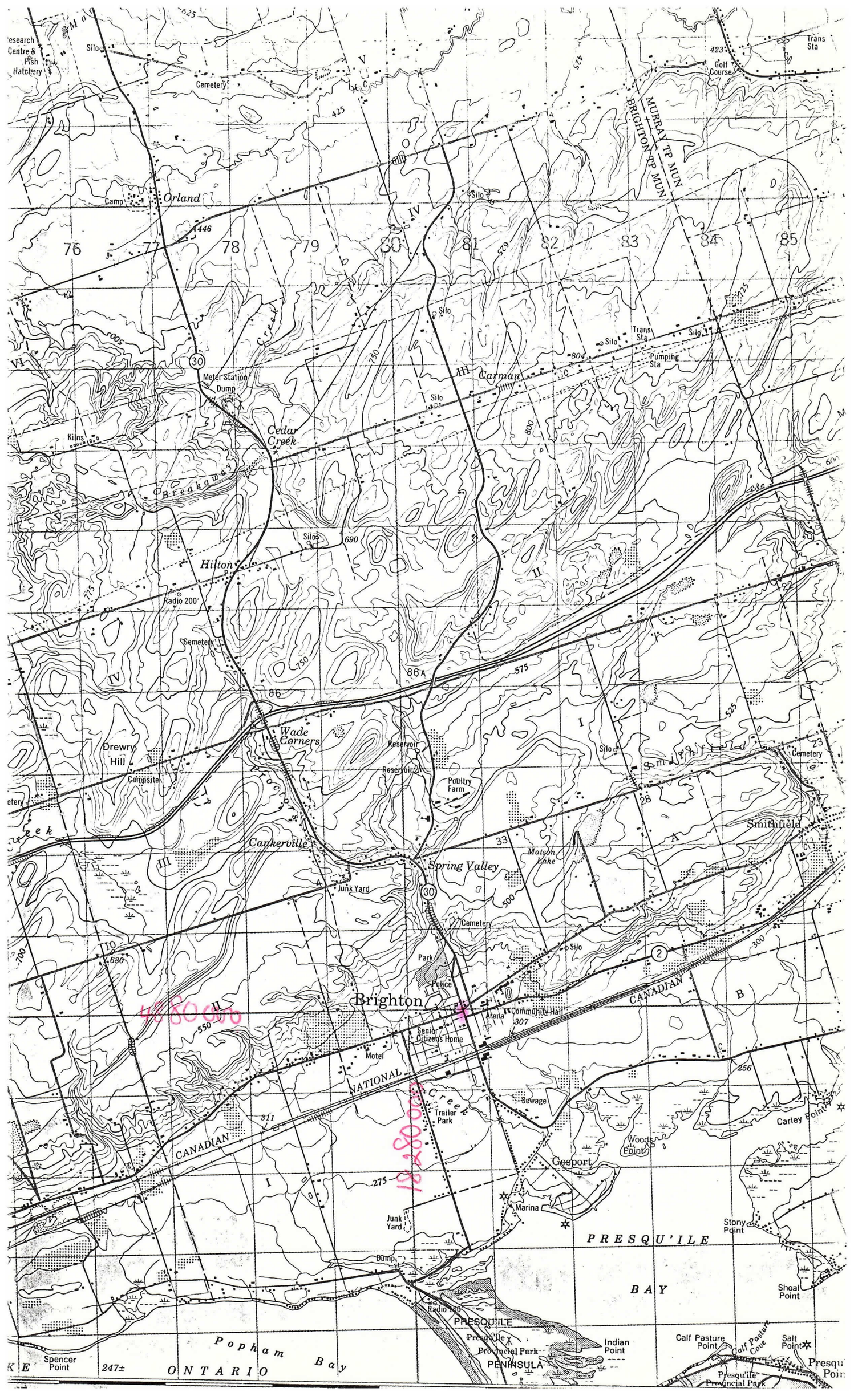
12. TOTAL INJURED NONE 13. TOTAL HOMELESS U

14. LIST ALL REFERENCES

PETERSON, D.G. 1973: Tracking the Brighton Tornado by radar and computer. Zephyr. Internal publication of A.E.S.

STAR, TORONTO. 23·7·1973
THE TRENTONIAN, TRENTON. 18(?)·7·1973
GLOBE & MAIL, TORONTO JULY 16, 1973

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


Research Centre & Fish Hatchery
Silo
Cemetery
625
V
C
425
Trans Sta
423
Golf Course
MURRAY TP MUN
BRIGHTON TP MUN
Camp
Orland
1446
76
77
78
79
80
81
82
83
84
85
IV
Silo
Trans Sta
Pumping Sta
804
Carman
III
Meter Station
Dump
30
Cedar Creek
Kilns
Breakaway
Silo
690
Hilton
Radio 200'
Cemetery
750
775
86A
86
575
II
I
Wade Corners
Reservoir
Reservoir
Poultry Farm
Drewry Hill
Campsite
Cankerville
Junk Yard
Spring Valley
Matson Lake
Smithfield
Cemetery
23
28
33
A
B
500
300
Park
Police
Brighton
Arena
Community Hall
307
Senior Citizens Home
Motel
CANADIAN NATIONAL
Creek
Trailer Park
Sewage
311
Woods Point
Carley Point
256
Gosport
Marina
Junk Yard
Dump
275
PRESQU'ILE BAY
Stony Point
Shoal Point
Radio 150
PRESQUILE PENINSULA
Presqu'ile Provincial Park
Indian Point
Calf Pasture Point
Calf Pasture Cove
Salt Point
Presqu'ile Point
Spencer Point
247±
Popham Bay
ONTARIO

July 13/73

TRACKING THE BRIGHTON TORNADO BY RADAR AND COMPUTER

by D.G. Peterson

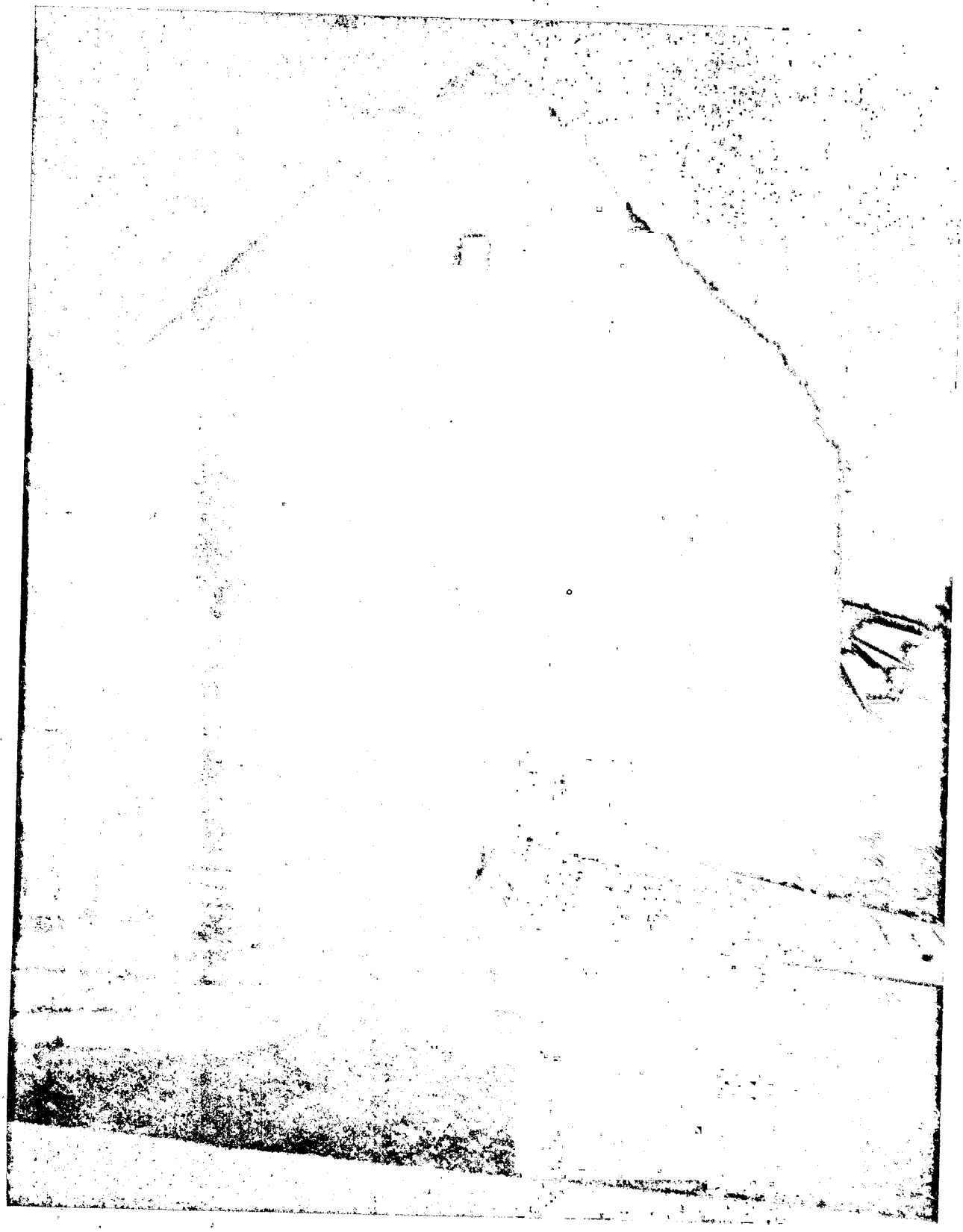
FRIDAY JULY 13 1973

On Friday, July 13, 1973, a tornado struck Brighton, Ontario at about 7:30 in the evening EDT (2330 GMT). The storm which contained the tornado was observed by the weather radar at the Meteorological Research Station (Station WH) at Woodbridge, Ontario, some 80 nautical miles (92 statute miles) west of Brighton. The computer system which was designed as the prototype for future radar data recording and transmitting systems was in operation at the time and produced "snapshot" pictures of the storm every 6 minutes on magnetic tape.

The following pictures show computer-generated maps of the radar echos from precipitation at an altitude of 1.5 Kilometers (about 5000 feet). The lightest shade of gray within the picture indicates a rainfall rate of 0.02-0.2 inches per hour, the darkest indicates 1-4 inches per hour. For ease of orientation, the computer has added to the echo picture a set of concentric range rings at 10, 20, 40, 60, 80, 100 and 120 nautical miles from the radar. An outline map showing Lakes Ontario, Erie, Huron, Georgian Bay and Simcoe was also added, and squares for cities such as Buffalo, Hamilton, London, Kitchener, Parry Sound, Barrie, Peterborough and Belleville.

The storm which spawned the tornado began about 4:45 p.m. EDT (2045 GMT) over Lake Simcoe. It was well developed as it passed over Peterborough to the South-East about 6:30 p.m. EDT. Upon reaching the shore of Lake Ontario, the storm intensified into several cells, one of which became the Brighton tornado. The storm dissipated quickly at Brighton (total time about 7:15 – 8:00 p.m. EDT) but was still intense as it passed over Trenton. It was severe enough at 8:00 p.m. EDT to cause power fluctuations strong enough to disrupt the operation of a prototype MARS-II Marine automatic weather station installed at Point Petre.

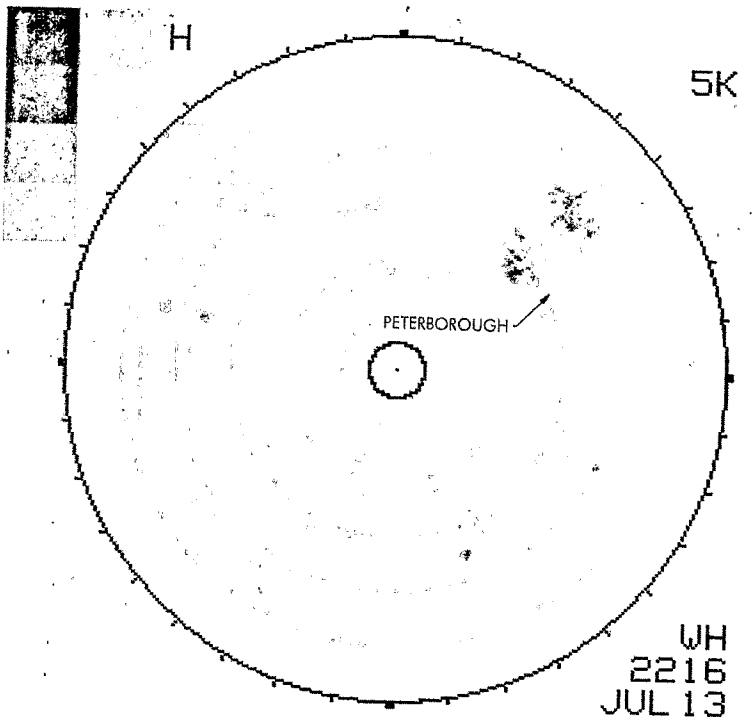
Routine control and modification of such storms as the Brighton storm is a long way off, but better and timelier warnings will be available when similar operational radar-computer systems are installed across Canada in the next few years.

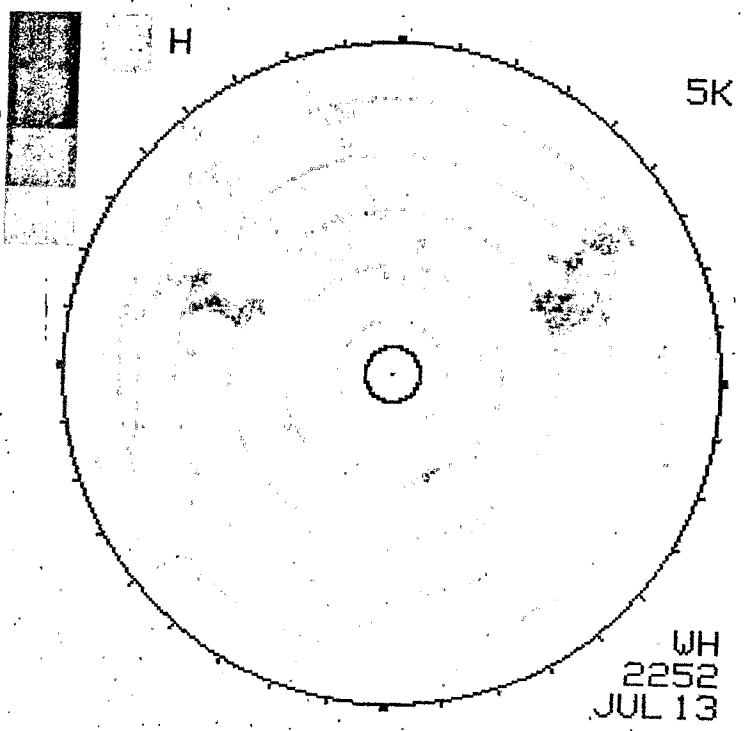


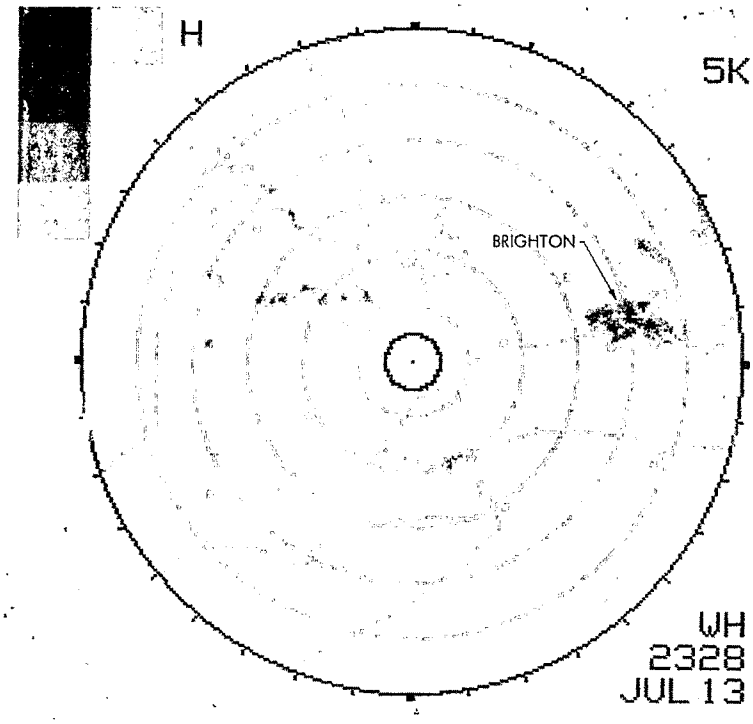
Typical damage caused by the tornado which struck Brighton, Ontario on July 13, 1973.

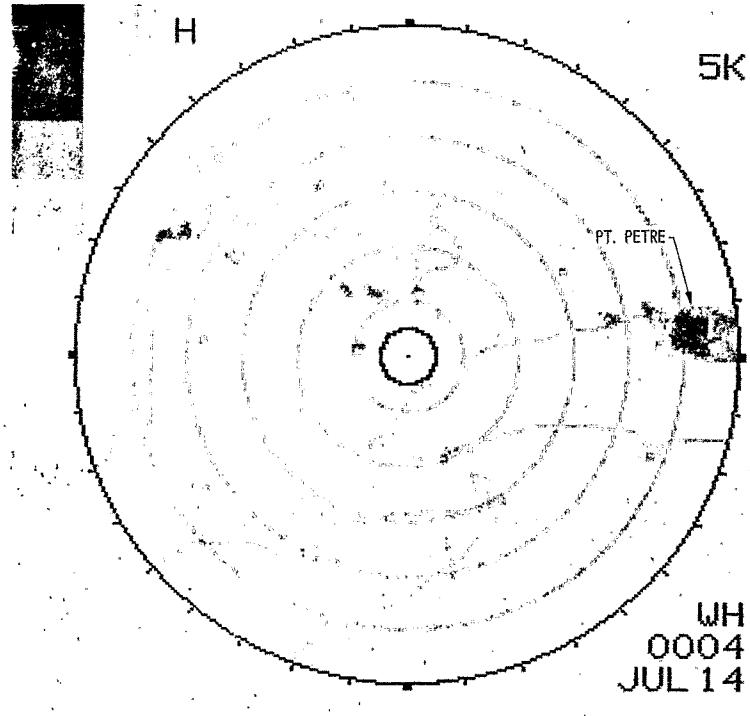


Photos Courtesy The Trentonian


H
5K
PETERBOROUGH
WH
2216
JUL 13


H
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WH
2252
JUL 13


H
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BRIGHTON
WH
2328
JUL 13


H
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PT. PETRE
WH
0004
JUL 14

BRIGHTON TORNADO OF JULY 13,1973.

THE TORONTO STAR,FRIDAY,JUNE 7,1974.

VILLAGE RIPPED BY TWISTER RESTORED WITH METRO'S HELP

It all boils down to this:If Metro and others hadn't been so generous,the province may have had to pay.

On Friday,July 13 last year,a tornado ripped through the Lake Ontario village of Brighton causing an estimated $1 million damage.

Roofs were torn off,100-year-old maple and oak trees uprooted and the old town hall in the community 90 miles east of Toronto was reduced to rubble.

The Ontario cabinet declared Brighton a disaster area and local citizens launched a fund-raising drive.

Brighton reeve Dorothy Brintnell donated her $1,000-a-year municipal salary and Metro gave a grant of $10,000.Almost $40,000 was raised.

The province had promised to match voluntary donations dollar for dollar.But,Mrs.Brintnell said last night,"We found we had enough."

Besides she said,provincial restrictions on use of the money were "too narrow."

After all claims were paid,Brighton still has $20,000 left in the voluntary fund,Mrs.Brintnell said.