A F=0 ONT

TORNADO PROJECT SUMMARY SHEET

1. DATE AND TIME 16.7.1976 1645 EDT

2. LOCATION OR PATH (attach map) BRIEF TOUCHDOWN AT THE OTTAWA AIRPORT

0697604

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 $ NIL 11. TOTAL DEATHS NONE

12. TOTAL INJURED NONE 13. TOTAL HOMELESS NONE

14. LIST ALL REFERENCES

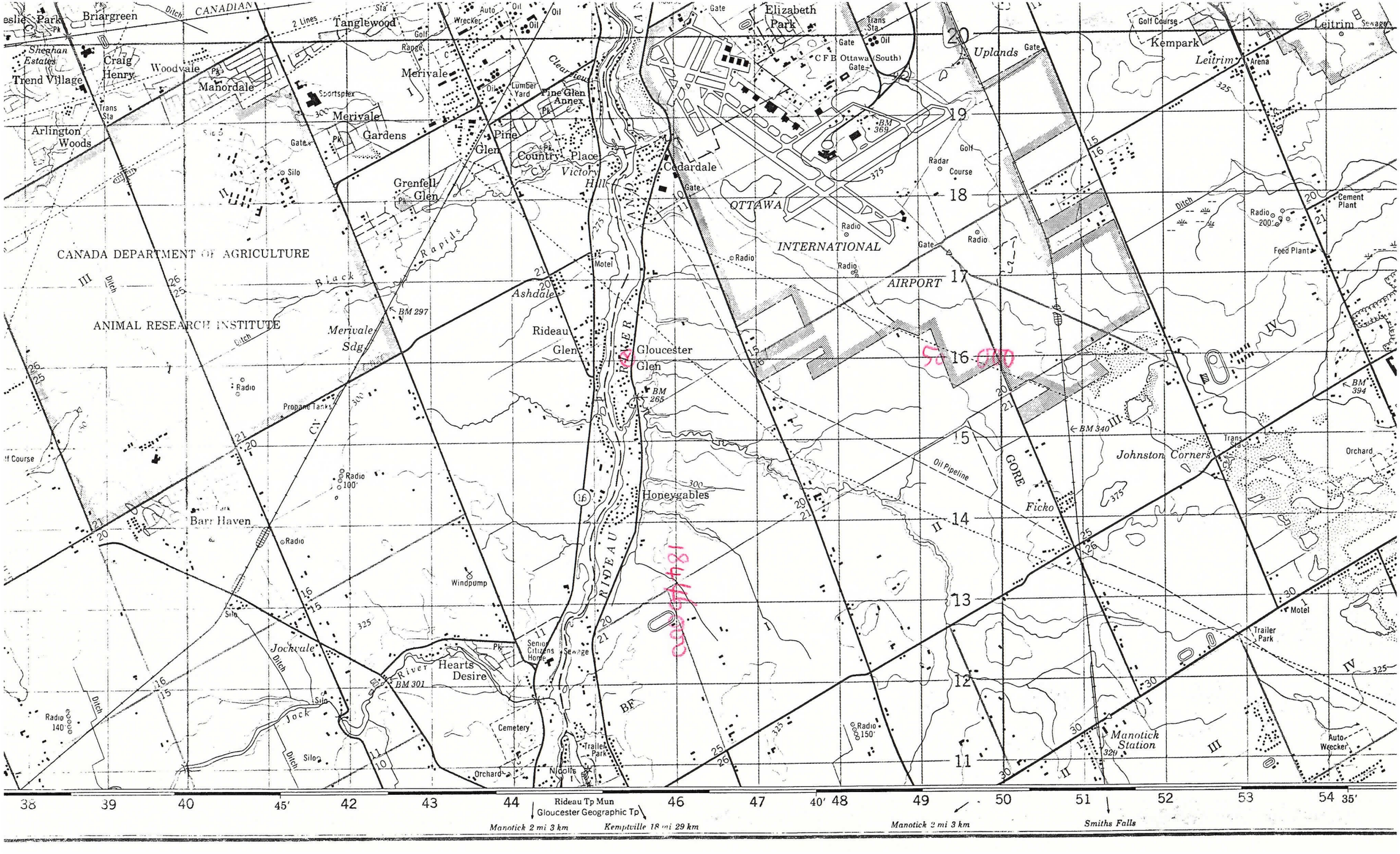
OFFICIAL WEATHER REPORT BY OTTAWA

Personal communication with Dr Paul Carlson, A.E.S.

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

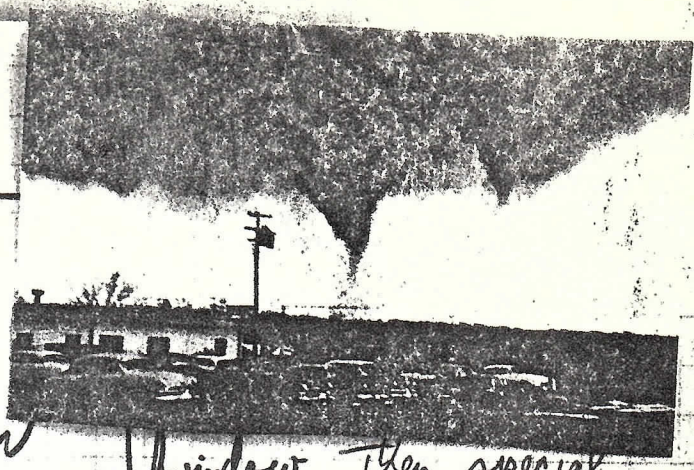
(a) FUNNEL SEEN BY ATC AT OTTAWA AIRPORT. IT CROSSED THE RIVER AND PICKED UP WATER. CLOSER THAN 1½ MILES FROM CENTRE. TOWER. STRIKES NEAR THE END OF RUNWAY 07.

(b) [illegible]


Briargreen
Tanglewood
Elizabeth Park
Golf Course
Leitrim
Kempark
Sheahan Estates
Craig Henry
Woodvale
Trend Village
Manordale
Merivale
Sportsplex
Merivale Gardens
Arlington Woods
Pine Glen Annex
Pine Glen
Country Place
Victory Hill
Cedardale
Grenfell Glen
CFB Ottawa (South)
Gate
Uplands
Arena
Golf Course
Radar
Ditch
Cement Plant
Feed Plant
OTTAWA INTERNATIONAL AIRPORT
CANADA DEPARTMENT OF AGRICULTURE
ANIMAL RESEARCH INSTITUTE
Black Rapids
Ashdale
Merivale Sdg
Rideau Glen
Gloucester Glen
RIDEAU RIVER
Motel
Propane Tanks
Radio
Oil Pipeline
Johnston Corners
Orchard
GORE
Ficko
Honeygables
Barr Haven
Windpump
Jockvale
Jock River
Hearts Desire
Senior Citizens Home
Sewage
Cemetery
Trailer Park
Nicolls
Manotick Station
Auto Wrecker
Motel
Trailer Park
BM 297
BM 265
BM 301
BM 340
BM 394
BM 369
Rideau Tp Mun
Gloucester Geographic Tp
Manotick 2 mi 3 km
Kemptville 18 mi 29 km
Manotick 2 mi 3 km
Smiths Falls

July 17/76 – Ottawa –

L, Original to Ottawa. –



W – Rigaud –

Richard Line, observer at OW
Ray Sauve, acting OIC
Pierre Lacroix, instructor at Met School.

} window, then special observation made from dock

Little, if no sound penetrated windows and walls.

See photo copy for the way it looked at the beginning, before touchdown (upper left)

Light surface winds at terminal building ~2 kts to 10 kts max
Small dip in barograph trace.

RWY 10 minutes later.

Closer to village of Magotick; across Rideau River south of Airport 3½ - 4 miles

VSBY Markers
S 1 mi to tree line and three masts
3½ miles

Tower 998-3089

Wx Office ~~998-3089~~ 998-3439

Expressway – left on McCarthy
Long Island – too far South –

ATC – say it crossed the river and picked up water, closer than ½ miles from control tower
stilled trees near the end of Runway 07
– near Gloucester Glen.

Friday July 16th/76 SPECIAL FORECAST FOR OLYMPIC GAMES AND REPORT ON TORNADO BY DR. PAUL CARLSON, AES.

12Z - 500 mb — Cold low entrenched in Gulf Alsk, 53N 141W
Strong ridge centred over Alberta with broad anticyclonic curvature across B.C.-Alta-Sask.
Cold low in southern Hudsons Bay (NE Travid Lake)
Cold low extnd vicinity St John's, Nfld
Rdg up east coast U.S. & Nwd into Labrador & nrn Que.
S/W trof swd from Hudsons Bay Low curving SSW just to west of Green Bay. Positive vorticity advection from Montreal to Lake Michigan

12Z - 700 mb — Reflects features as indicated in 500-mb discussion
Near saturation from MW to Buf., Flint missing
T-Td spreads 8 to 30 in area NW of a line from SSM to central Illinois
Wk to mdt cold advection from MW to SSM and Swds.

12Z - 850 mb — "Cold low" in Hudsons Bay still somewhat baroclinic with 2 isotherms N-S through low — no further eastward motion is likely.
Cold advection from Mtl area to the Soult
Frontal wave crests about OW and colder front curves from eastern Hudsons Bay to Georgian Bay to central Illinois & SW wds
MW 13, 1 (Td 12) WSW wind ~5 kts

My forecast — wrm cold front will move Ewds 15 to 20 kts to NE-SW line over Nova Scotia, accompanied by "bkn" showers and possible thundershowers.
Second cold front will move to parallel curving line through Gaspe by 171200Z.
Clearing west of second cold front except for afternoon and evening Cu & Ci.
Second cold front will reach Mtl about 170000Z.
Oldy. Showers until 170000Z, clearing and cooler thereafter.

Radar fest — Subjective from 1140, SHARP from 1300, after repairs
Rain at ULV by 1340 EDT Olympic site 1400 EDT
SHARP fest for Olympic site ~1410 EDT
Verification — Rain began at St Lambert at 1405 EDT

(over)

Dual contribution to pcpn band 30 nmi
1) pulse Radar oriented in NE-SW line along Laurentians
1750Z → 1930Z - little motion evident
Sfc Wind S to SW 5-10 km/hr.
1800Z Map - P front just along Laurentians N of Montreal, through Kingston, Cleveland and SW.
Echoes along Laurentians will move to move SE in response to NWly push of cold air behind fronts.
SHARP tests pcpn ...15 starting at Olympic site about 10 to 6 EDT. 1550EDT or 1950Z. Clears.
I maintain that once the new stationary line has moved through Mtl "the worst of the pcpn will be over."

SWEAT — 25+32 57

	FCST	T	Td	Dir	Speed
500mb		-16 (-13)	-29 (-21)	270 (240)	35 kts (25)
700mb		2 (5)	-6 (1)	270 (220)	25 kts (25)
850mb.		13 (12)	12 (9)	240 (300)	15 kts (20)

Behind cold front

$I = 12 \times 13 + 20(57-49) + 2 \times 15 + 35 + 125(0.4)$

$= 156 + 160 + 30 + 35 + 50$

$= (431)$ Fcst SWEAT Index for 170000Z

Index calculated about 3pm (1900Z) and report of funnel cloud touching down came from YOW at 1645 EDT (2045Z) after SHARP map had recorded an A-intensity (75mm/hr) threshold at 2000Z on the SE edge of the echo pattern

More cells with A's — Lapairie ~ 1830 EDT
Russell - Rigaud
Mirabel

Pre-Olympic Severe Thunderstorms and Tornado
16 July 76 Montreal area