B

TORNADO PROJECT SUMMARY SHEET

F = 0 ONT

1. DATE AND TIME TUE JUNE 27, 1978 0630 EST

2. LOCATION OR PATH (attach map)
DILLON
0697815

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

4. PATH WIDTH 1/4 MILE 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; CLOUDS TINGED WITH YELLOW

9. LIST ANY ASSOCIATED PHENOMENA (Such as hail, vivid lightning heavy rain, no rain, etc.) HAIL UP TO GOLF BALL SIZE

10. TOTAL DAMAGE ESTIMATE $ 11. TOTAL DEATHS

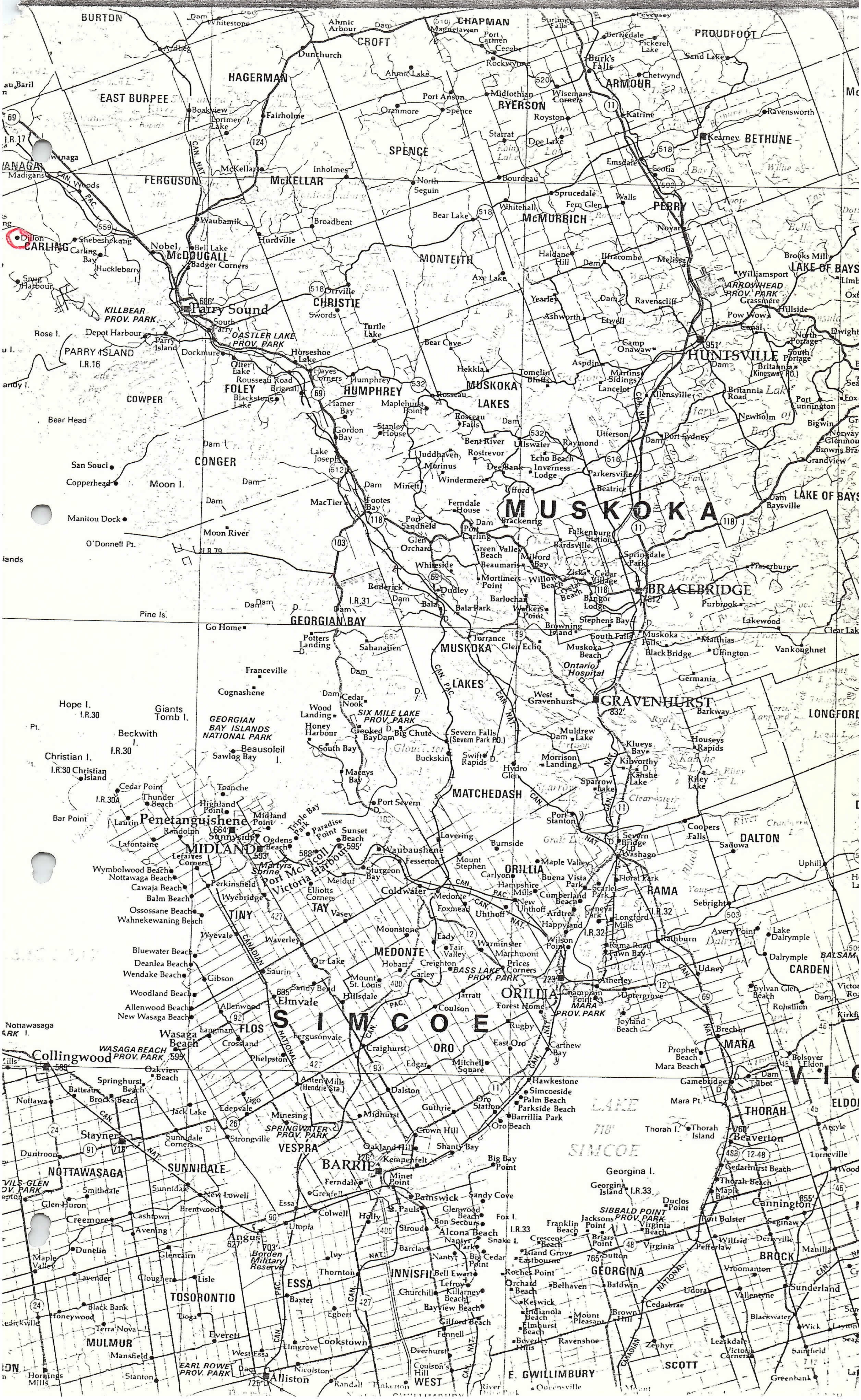
12. TOTAL INJURED 13. TOTAL HOMELESS

14. LIST ALL REFERENCES
THE NORTH STAR, PARRY SOUND. THUR JUNE 29, 1978 p1
Telephone Interview. July 1978 by M. J. Newark

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

(a) none.

(b) Many trees uprooted, some up to 2ft in diameter. Secondary damage to hydro wires and cottages due to falling trees.


BURTON
Whitestone
Ahmic Arbour
CROFT
CHAPMAN
Magnetawan
Port Carmen
Cecebe
Rockwynne
Stirling Falls
Berriedale
Pickerel Lake
PROUDFOOT
Sand Lake
Ardbeg
Dunchurch
Ahmic Lake
Burk's Falls
Chetwynd
ARMOUR
HAGERMAN
EAST BURPEE
Port Anson
Midlothian
RYERSON
Wisemans Corners
Katrine
Ravensworth
Boakview
Lorimer Lake
Fairholme
Oranmore
Spence
Royston
Starrat
Doe Lake
Kearney
BETHUNE
I.R.17
SPENCE
Emsdale
Scotia
Madigans
Woods
FERGUSON
McKellar
McKELLAR
Inholmes
North Seguin
Bourdeau
Sprucedale
Fern Glen
Walls
PERRY
Whitehall
McMURRICH
Bear Lake
Waubamik
Broadbent
Noyar
Dillon
CARLING
Shebeshekong
Carling Bay
Nobel
McDOUGALL
Bell Lake
Badger Corners
Hurdville
MONTEITH
Haldane Hill
Ilfracombe
Melissa
Brooks Mills
LAKE OF BAYS
Williamsport
ARROWHEAD PROV. PARK
Grassmere
Hillside
Huckleberry I.
Snug Harbour
Axe Lake
Yearley
Ravenscliff
Pow Wow
Canal
Dwight
Parry Sound
KILLBEAR PROV. PARK
Orrville
CHRISTIE
Swords
Ashworth
Etwell
Camp Onawaw
HUNTSVILLE
North Portage
South Portage
Rose I.
Depot Harbour
Parry Island
South Parry
OASTLER LAKE PROV. PARK
Turtle Lake
Bear Cave
PARRY ISLAND
I.R.16
Dockmure
Otter Lake
Horseshoe Lake
Hayes Corners
Humphrey
Hekkla
Tomelin Bluffs
Aspdin
Martins Sidings
Lancelot
Allensville
Britannia (Kingsway P.O.)
Britannia Road
Port Cunnington
Newholm
Bigwin
Rousseau Road
FOLEY
Brignall
HUMPHREY
MUSKOKA LAKES
Rosseau
COWPER
Blackstone Lake
Hamer Bay
Maplehurst Point
Rosseau Falls
Bear Head
Gordon Bay
Stanley House
Bent River
Ullswater
Raymond
Utterson
Port Sydney
Norway
Glenmount
Browns Brae
Grandview
CONGER
Lake Joseph
Juddhaven
Rostrevor
Echo Beach
Inverness Lodge
Parkersville
San Souci
Morinus
Windermere
Dee Bank
Copperhead
Moon I.
Minett
Ufford
Beatrice
Baysville
LAKE OF BAYS
MacTier
Footes Bay
Ferndale House
MUSKOKA
Manitou Dock
Port Sandfield
Port Carling
Brackenrig
Falkenburg Station
Moon River
Glen Orchard
Green Valley Beach
Bardsville
O'Donnell Pt.
I.R.79
Milford Bay
Springdale Park
Whiteside
Beaumaris
Fraserburg
Mortimers Point
Willow Beach
Ziska
Cedar Village
Crystal Beach
BRACEBRIDGE
Roderick
Dudley
Bangor Lodge
Purbrook
I.R.31
Bala
Bala Park
Barlochan
Walkers Point
Pine Is.
Go Home
GEORGIAN BAY
Browning Island
Stephens Bay
Lakewood
Clear Lake
Potters Landing
Torrance
Glen Echo
South Falls
Muskoka Falls
Matthias
Sahanatien
MUSKOKA
Muskoka Beach
Black Bridge
Uffington
Vankoughnet
Franceville
Ontario Hospital
Germania
LAKES
Cognashene
Cedar Nook
West Gravenhurst
GRAVENHURST
Barkway
LONGFORD
Hope I.
I.R.30
Giants Tomb I.
Wood Landing
SIX MILE LAKE PROV. PARK
GEORGIAN BAY ISLANDS NATIONAL PARK
Honey Harbour
Crooked Bay
Big Chute
Severn Falls (Severn Park P.O.)
Muldrew Lake
Beckwith I.
Beausoleil I.
Sawlog Bay
South Bay
Buckskin
Swift Rapids
Morrison Landing
Klueys Bay
Houseys Rapids
Christian I.
I.R.30 Christian Island
Kilworthy
Kahshe Lake
Riley Lake
Maceys Bay
Hydro Glen
Sparrow Lake
Cedar Point
Thunder Beach
Toanche
MATCHEDASH
Highland Point
Port Severn
I.R.30A
Bar Point
Laurin
Penetanguishene
Midland Point
Triple Bay Park
Paradise Point
Sunset Beach
Port Stanton
Coopers Falls
DALTON
Randolph
Sunnyside
Ogdens Beach
Lovering
Severn Bridge
Lafontaine
MIDLAND
Waubaushene
Burnside
Washago
Sadowa
Lefaives Corners
Port McNicoll
Victoria Harbour
Martyrs Shrine
Fesserton
Mount Stephen
Maple Valley
Uphill
Wymbolwood Beach
Nottawaga Beach
Sturgeon Bay
ORILLIA
Carlyon
Buena Vista Park
Floral Park
Cawaja Beach
Perkinsfield
Melduf
Elliotts Corners
Coldwater
Hampshire Mills
Scarlet Park
RAMA
Balm Beach
Wyebridge
Medonte
Cumberland Beach
Ossossane Beach
Wahnekewaning Beach
TINY
JAY
Vasey
Foxmead
Uhthoff
New Uhthoff
Ardtrea
Geneva Park
Longford Mills
I.R.32
Sebright
Happyland
Moonstone
Avery Point
Lake Dalrymple
Wyevale
Waverley
Eady
Fair Valley
Warminster
Marchmont
Wilson Point
Rama Road
Fawn Bay
Rathburn
Bluewater Beach
MEDONTE
Dalrymple
BALSAM
Deanlea Beach
Wendake Beach
Gibson
Saurin
Orr Lake
Hobart
Creighton
BASS LAKE PROV. PARK
Prices Corners
Udney
CARDEN
Mount St. Louis
Carley
Atherley
Sylvan Glen Beach
Woodland Beach
Sandy Bend
Hillsdale
Elmvale
Jarratt
ORILLIA
Champlain Point
Uptergrove
Victoria Road
Allenwood Beach
New Wasaga Beach
Allenwood
Coulson
Forest Home
MARA PROV. PARK
Rohallion
Joyland Beach
Kirkfield
Nottawasaga
SIMCOE
FLOS
Langman
Wasaga Beach
Crossland
Fergusonvale
Rugby
Brechin
Collingwood
WASAGA BEACH PROV. PARK
ORO
East Oro
Carthew Bay
Prophet Beach
MARA
Bolsover
Eldon
Phelpston
Craighurst
Edgar
Mitchell Square
Mara Beach
Oakview Beach
Springhurst Beach
Anten Mills (Hendrie Sta.)
Dalston
Hawkestone
Gamebridge
Talbot
Batteaux
Brocks Beach
Nottawa
Vigo
Edenvale
Jack Lake
Simcoeside
Palm Beach
Parkside Beach
Barrillia Park
Oro Station
Guthrie
Midhurst
Minesing
Mara Pt.
THORAH
ELDON
Stayner
SPRINGWATER PROV. PARK
Sunnidale Corners
Strongville
Crown Hill
Oro Beach
LAKE SIMCOE
Thorah I.
Thorah Island
Beaverton
Argyle
Duntroon
VESPRA
Oakland Hill
Shanty Bay
Kempenfelt
Lorneville
NOTTAWASAGA
SUNNIDALE
BARRIE
Big Bay Point
Georgina I.
Cedarhurst Beach
Woodville
Minet Point
Thorah Beach
Maple Beach
Georgina Island
I.R.33
Smithdale
Sunnidale
New Lowell
Ferndale
Grenfell
Painswick
Sandy Cove
Duclos Point
Cannington
Glen Huron
Brentwood
Essa
Colwell
St. Pauls
Glenwood Beach
SIBBALD POINT PROV. PARK
Port Bolster
Creemore
Cashtown
Holly
Bon Secours
Fox I.
Jacksons Point
Virginia Beach
Saginaw
Avening
Angus
Utopia
Stroud
Alcona Beach
Franklin Beach
Crescent Beach
Briars Point
Wilfrid
Derryville
Dunelin
Borden Military Reserve
Ivy
Barclay
Nantyr Park
Snake I.
Island Grove
Eastbourne
Sutton
Virginia
Pefferlaw
Manilla
Maple Valley
Glencairn
Thornton
INNISFIL
Big Cedar Point
GEORGINA
BROCK
Lavender
Clougher
Lisle
ESSA
Bell Ewart
Roches Point
Vroomanton
Lefroy
Orchard Beach
Belhaven
Baldwin
Sunderland
TOSORONTIO
Baxter
Churchill
Killarney Beach
Udora
Vallentyne
Black Bank
Egbert
Bayview Beach
Keswick
Cedarbrae
Honeywood
Tioga
Indianola Beach
Mount Pleasant
Brown Hill
Blackwater
Terra Nova
Everett
Gilford Beach
Elmhurst Beach
Wick
MULMUR
Cookstown
Elmgrove
Fennell
Beverley Hills
Ravenshoe
Zephyr
Leaskdale
Victoria Corners
Saintfield
Mansfield
West Essa
Deerhurst
EARL ROWE PROV. PARK
Hornings Mills
Stanton
Alliston
Nicolston
Coulson's Hill
E. GWILLIMBURY
SCOTT
Greenbank
Randall
WEST

REPORT ON THE TORNADOES OF TUESDAY JUNE 27TH, 1978

Prepared by

M.J. Newark and P.J. Elms

July 10, 1978

INTRODUCTION

At least two tornadoes (and possibly 3) occurred in Ontario and Quebec on Tuesday June 27, 1978. This conclusion is the result of personal visits to storm damaged areas, interviews with the provincial police of Quebec and Ontario, Ontario Hydro and discussions with news reporters and private individuals. The storm tracks are shown in figures 1a and 1b.

1. Unconfirmed tornado at Dillon, Ontario (vicinity of Parry Sound)

A storm at 0730 EDT near Dillon, Ontario, displayed tornado characteristics but confirmation of a funnel sighting could not be obtained. Damage was confined to a path about 400 m in width and several kilometres in length. Trees, some up to 60 cm in diameter, were uprooted or broken off and minor damage to rooftops and TV masts was reported. Secondary damage was caused by trees falling onto houses and hydro wires. Hail of about 2 cm diameter accompanied the storm, while in Huntsville, hail as large as golf balls was reported. Windows along the storm path were broken and cars and trucks dented.

A total damage estimate is not available and there were no injuries or deaths. In response to questioning, there was no indication that anyone had heard the severe thunderstorm warning issued by the Ontario Weather Centre at 0500 EDT that morning.

2. Confirmed tornado Bob Lake - Lac des Loups - vicinity Duclos, Quebec

Personal examination revealed a continuous damage path about 300 m in width and at least 13 kilometres in length which slashed through this sparsely populated area on the fringes of the rugged Parc de la Gatineau (figure 2). The tornado funnel was seen by many people at about 1630 EDT and was at first mistaken for the smoke of a fire. It was accompanied by a terrible roar, but no rain or hail fell at the time.

It commenced somewhere between Bob Lake and Thorne Lake (police confirm that no damage was reported by residents around Thorne Lake), and travelled along a sinusoidal but generally west to east path through the village of Lac-des-Loups to the vicinity of Duclos.

Trees along the storm track were completely flattened. A cottage at Bob Lake was pushed off its foundation. In Lac-des-Loups, several houses and cottages suffered extensive damage; one house was lifted into the air with its occupants, a mother and three children, and thrown a metre or two off its foundation. Other buildings sustained considerable roof damage and two small cottages were demolished. There were no personal injuries or deaths.

Several residents had heard a weather warning but had not taken any particular action as a result. Very few of the dwellings had a basement or any other suitable place of refuge. A total damage estimate is not available, but must run into many thousands of dollars.

2.1 Confirmed tornado, Cascade - Mont Cascade - Masson, P.Q., - Rockland, Ontario.

A black tornado funnel was seen by many eyewitnesses. As it crossed the Gatineau River it lashed the river surface into a fury of waves and

turned a foggy grey colour as it drew water up about 10 or 12 metres. No rain or hail accompanied the tornado at this point. Only that portion of the track in the vicinity of Cascade was visited by the authors (figure 3).

The large uninhabited Parc de la Gatineau lies to the west of Cascade and the origin point of this tornado is unknown. Its total damage length is estimated to be about 50 kilometres at least, and in the area inspected was about 300 m wide. Trees, some as large as 1 m through the butt, were levelled in profusion and some had been snapped or twisted off. No primary property damage was seen in the vicinity and very little secondary damage. The description of the very bad damage and injuries in Masson is left to others, while considerable pictorial evidence of it has been published by the Ottawa daily papers.

The tornado reached Cascade around 1700 EDT and passed Masson at about 1730 EDT. This gives an average speed of about 70 km hr^{-1}.

Estimates of damage due to this tornado run as high as $3 million, more than 30 people were injured and 50 or more families were left homeless.

2.2 Continuation of the tornado in the vicinity of Clarence Creek to St. Bernadin

The Ontario Hydro Commission has conducted a detailed study of the damage in the vicinity of St. Bernadin because a number of their large high-voltage transmission towers were felled by the storm at approximately 1800 EDT. Nobody reported a funnel cloud, but many barns

and silos were badly damaged along a narrow path. Hail the size of chicken egges fell for a short time preceding the wind damage.

A damage estimate is unavailable. No injuries or deaths were reported.

3 THE STORMS AS SEEN BY WEATHER SATELLITE

GOES photographs received by the Satellite Data Lab., AES, indicate that the Quebec - eastern Ontario tornadoes were produced by the same parent thunderstorm complex which originated near Huntsville, Ontario at about noon EDT. Small at first, this complex moved across Algonquin Park, then growing in size curved east-southeastwards across Calumet Island. It crossed the Ottawa River near Rockland carried on across the western end of Montreal Island, finally moving into New Brunswick (figure 4). At the time that the tornadoes were occurring, the photographs show a multiple towered CB complex with a huge anvil cloud streaming downwind. This complex in turn was one of several others aligned northeast-southwest along a cold front. Calculations show that the motion of the particular complex was from 290^{o} at 70 km hr^{-1}.

4 CONCLUSION (and possibly 3)

(a) At least 2 tornadoes struck Ontario and Quebec on Tuesday, June 27, 1978.

(b) The most severe damage was at Masson, Quebec, where 30 or more people were injured, 50 or more families rendered homeless, and at least $2 million worth of property damage was sustained.

(c) Some people heard weather warning messages, but either could not or did not take precautionary measures.