

A



TORNADO PROJECT SUMMARY SHEET

F=0

ONT

1. DATE AND TIME THUR JULY 2, 1981 1635 EST

2. LOCATION OR PATH (attach map) VCNTY BIRDSALLS

0698108

3. PATH LENGTH NOT KNOWN <1mi; 1-4mi; 5-40mi; 11-50mi; LENGTH IF > 50mi

4. PATH WIDTH UNK 5. TORNADO PART OF SMALL 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.) NO RAIN AT TIME OF OBSERVATION

10. TOTAL DAMAGE ESTIMATE \$ LITTLE 11. TOTAL DEATHS NONE

12. TOTAL INJURED NONE 13. TOTAL HOMELESS NONE

14. LIST ALL REFERENCES

TELEPHONE INTERVIEWS BY M. J. NEWARK, July 3, 1981.

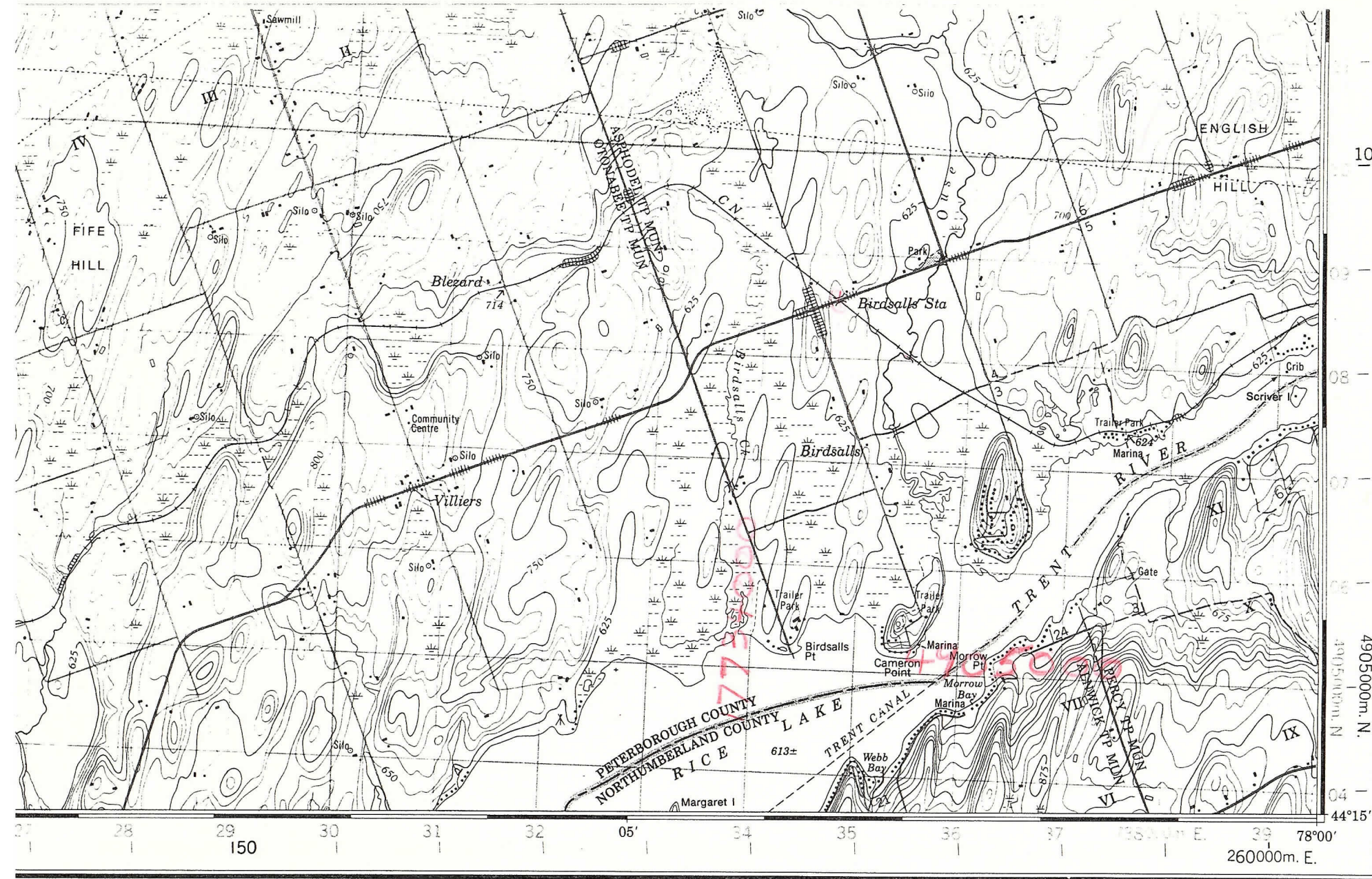
15. SUMMARIZE REMARKS PERTAINING TO (a) FUNNEL; (b) INTERESTING OR CAPRICIOUS EVENTS.

(a) Cone shaped funnel.

(b) a few trees broken.

T.D. 17734725

4908550



ABSCISSE: Noter le chiffre de la ligne du quadrillage immédiatement à gauche du repère. 97

Estimate tenths of a square from this line eastward to point.
Estimer le nombre de dixièmes du carré entre cette ligne et le repère en direction est. 5
975

NORTHING: Read number on grid line immediately below point. 98

ORDONNÉE: Noter le chiffre de la ligne du quadrillage immédiatement en dessous du repère. 984

Estimate tenths of a square from this line northward to point.
Estimer le nombre de dixièmes du carré entre cette ligne et le repère en direction nord. 4
GRID REFERENCE: 984

RÉFÉRENCE AU QUADRILLAGE: 975984

Nearest similar grid reference 100 000 metres (about 63 miles).
La prochaine référence similaire est à 100 000 mètres (environ 63 miles).

BROWN NUMBERED TICKS INDICATE THE 1000 METRE U.T.M. GRID ZONE 18
LES AMORCES BRUNES NUMÉROTÉES REPRÉSENTENT LE QUADRILLAGE DE 1000 MÈTRES T.U.M.

TABLEAU D'ASSEMBLAGE DU SYSTÈME NATIONAL DE RÉFÉRENCE CARTOGRAPHIQUE

79°00'	77°30'		
44°45'			44°45'
	31 D/10	31 D/9	31 C/12
	31 D/7	31 D/8	31 C/5
	31 D/2	31 D/1	31 C/4
44°00'	79°00'		77°30'

INDEX TO ADJOINING MAPS OF THE NATIONAL TOPOGRAPHIC SYSTEM

On peut obtenir des renseignements sur le lieu et l'altitude exacte des repères de nivellement en écrivant aux Levés géodésiques, Direction des levés et de la cartographie, Ottawa.

ÉCHELLE DE CONVERSION DES ALTITUDES

150 200 250 300 Mètres

500 600 700 800 900 1000 Pieds

ÉQUIDISTANCE DES COURBES 25 PIEDS
Altitudes en pieds
Système de référence géodésique nord-américain, 1927
Projection transverse de Mercator

Établie par la DIRECTION DES LEVÉS ET DE LA CARTOGRAPHIE, MINISTÈRE DE L'ÉNERGIE, DES MINES ET DES RESSOURCES. Mise à jour à l'aide de photographies aériennes prises en 1976. Vérification des ouvrages en 1976. Publiée en 1980.

Ces cartes sont en vente au Bureau des Cartes du Canada, ministère de l'Énergie, des Mines et des Ressources, Ottawa, ou chez le vendeur le plus près.

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PETERBOROUGH
31 D/8
EDITION 5

TORNADO SURVEY FORM

NAME OF INVESTIGATOR M. J. NEWARK	INVESTIGATOR'S PHONE 676-4540	DATE OF INVESTIGATION JULY 3 1981	LOCATION NUMBER
INVESTIGATOR'S ADDRESS AGS Toronto Int'l Airport	PERSONAL SURVEY <input type="checkbox"/>	UTM ZONE	EASTING
	TELEPHONE INTERVIEW <input checked="" type="checkbox"/>		NORTHING

1. NAME(S) OF PERSON(S) INTERVIEWED
MICHAEL INGRAM

2. ADDRESS (NOT RR#) OF THIS LOCATION **DRIVING WEST ON HWY 7 BYPASS SOUTH OF PETERBOROUGH**
Lot Con. Twp. Co. or # Street, Town, Prov. or Section, Township, Range, Meridian

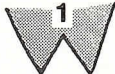
3. PHONE NUMBER OF PERSON INTERVIEWED
(705) 765-3963
Area Code Number


4. (a) TIME AND DATE OF THE EVENT AT THIS LOCATION
1635 EST 2 JULY 1981
Standard Time, Time Zone Day Month Year


(b) HOW WAS THE TIME DETERMINED (STOPPED CLOCK, POWER FAILURE, MEMORY, A TIME-FIXING EVENT ETC.)
MEMORY (BUT CHECKS VERY WELL WITH WEATHER RADAR EVENTS)


5. (a) FUNNEL SEEN **Y** or N


(b) FUNNEL TYPE (CIRCLE)


1
Multiple


2
Smoke-like


3
Columnar


4
Cone


5
Rope-like

6
Unknown

7
Other

(c) IF MULTIPLE, HOW MANY? (d) FROM WHICH DIRECTION?
SOUTHERLY

6. UNUSUAL NOISE? **Y** or N IF YES, DESCRIBE

7. UNUSUAL SKY COLOUR? **Y** or N IF YES, DESCRIBE

8. (a) HAIL? **Y** or N (b) DID HAIL PRECEDE AND/OR FOLLOW THE TORNADO?

(c) HAIL SIZE (CIRCLE)
PEA GRAPE WALNUT GOLF BALL
TENNIS BALL OTHER UNKNOWN OR DIAMETER (mm)

9. (a) RAIN, HOW MUCH? **NONE AT TIME OF THE EVENT** (b) DID THE RAIN FALL BEFORE AND/OR AFTER THE TORNADO, AT THE TIME OF NONE

10. (a) NUMBER OF HUMAN FATALITIES **NONE** (b) NUMBER OF ANIMAL FATALITIES **NONE**
(c) NUMBER OF HUMAN INJURIES **NONE** (d) NUMBER OF ANIMAL INJURIES **NONE**

11. (a) ARE PHOTOS AVAILABLE? (TAKEN EITHER BY PERSON INTERVIEWED OR ACQUAINTANCES) **Y** or N (b) IF YES, GIVE NAMES AND ADDRESSES WHERE THEY ARE AVAILABLE

12.

DAMAGE UNDERLINE ITEMS AS APPROPRIATE, AND ADD INFORMATION AS APPROPRIATE.

FO (64 - 115 km/h) T.V. antennae bent. A few roof shingles removed from houses and roofing stripped from barns. Patches of siding removed from houses, awnings or canopies damaged. Aluminum garden sheds moved or buckled and garden furniture blown around. Fences blown down. **Trees broken or uprooted** (intermittently in heavily treed bush lots).

F1 (116 - 179 km/h) Large areas of roofing material stripped from homes or industrial buildings. Barn roofs entirely removed and boards or siding removed from barn walls. Some impact damage from flying missiles. Unanchored buildings twisted on their foundations. Steel hydro-electric transmission towers knocked down. Summer cottages moved off their foundation.

F2 (180 - 251 km/h) Structural failure of roofs and porches. Barns demolished to the foundation. Empty stave concrete silos blown over or the upper portions of partly filled stave silos demolished. Unanchored 1 - storey houses moved entirely off their foundation. Cottages rolled over or carried short distances. Farm wagons or equipment carried short distances. Areas of total damage in heavily treed bush lots. Considerable impact damage from flying missiles.

F3 (252 - 330 km/h) Upper storeys of brick houses destroyed. Extensive structural damage to frame houses. Heavy farm machinery and automobiles moved or upset. Unanchored 2 - storey frame houses moved entirely off their foundation. Tombstones blown over or carried short distances. House trailers entirely demolished. Extensive impact damage from flying missiles.

F4 (331 - 416 km/h) Two-storey brick homes almost completely destroyed. Empty poured concrete silos blown down. Automobiles, vans, heavy farm equipment carried long distances through the air. Extensive structural failure of industrial buildings.

F5 (417 - 509 km/h) Little remains intact.

13.

DAMAGE SPECIFICS REQUIRED (SHOW THE UNITS OF MEASUREMENT) IN ORDER TO CALCULATE WIND VELOCITY WHEN STRUCTURES OR OBJECTS HAVE BEEN MOVED, TIPPED OR CARRIED.

(a) Name of object or structure

(b) Predominant material used in its construction

(c) Was it anchored, and how?

(d) Estimated weight

(e) Dimensions

Length (L)
Height (H)

Width (W)
Diameter (D)

(f) Angle (θ) between the wind direction and the normal plane.

(g) Sketch of the object or structure (show L, W, H, D or other dimensions or quantities).

14.

Damage sketch for this location. — Need not be to scale but should indicate numerical dimensions (metric units preferred) and orientation with respect to north. Positions where photographs were taken should be located.



General comments

Mike Ingram (a reporter for CNAV-FM, Barrie) was a passenger in a pick-up truck travelling westwards along Highway 7. At the Hwy 7 bypass just south of Peterborough, (a high point of land with a commanding view) he and his father (the driver) saw a black undulating cone shaped funnel towards the southeast (they had to look over their shoulder). It was fat at the top and narrow at the bottom reaching at least $\frac{1}{3}$ rds of the distance from cloud to ground. The time was 1730 EDT and they watched the funnel until it dissipated a few minutes later. There was rain to the north of Peterborough and rain to the east of the funnel but no rain at the point of observation. No lightning was observed.

Mr. Ingram could not tell whether the funnel was reaching the ground. Gusts of wind (not related to the distant funnel) were buffeting the truck.

The Peterborough O.P.P. reported a tree uprooted on county road number 2 between Keene and Hartings (exact location unknown).

Radar tops 8 to 9 km.

Radar cell motion $150^\circ / 86$ km/h.