A.

TORNADO PROJECT SUMMARY SHEET

F=3 ONT (also see QUE)

1. DATE AND TIME FRIDAY JULY 5, 1850 1600 LOCAL

2. LOCATION OR PATH (attach map) (LAKE SCUGOG TORNADO)
VCNTY SANDFORD – VCNTY MANCHESTER – VCNTY ENNISKILLEN
(NW–SE)

3. PATH LENGTH ☐ NOT KNOWN ☐ <1 mi; ☐ 1–4 mi; ☐ 5–10 mi; ☒ 45 at least 11–50 mi; ☐ LENGTH IF >50 mi

4. PATH WIDTH 1/4 to 1 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; 7. The loud roar of the tempest.

9. LIST ANY ASSOCIATED PHENOMENA (Such as hail, vivid lightning heavy rain, no rain, etc.) Hail the size of hens eggs.

10. TOTAL DAMAGE ESTIMATE $ UNKNOWN 11. TOTAL DEATHS 3 possibly 4.

12. TOTAL INJURED 4 (one lady's ankle fractured by a hail stone) 13. TOTAL HOMELESS UNKNOWN many cattle, sheep, horses, geese.

14. LIST ALL REFERENCES

WHITBY REPORTER, quoted in the WEEKLY BRITISH WHIG, KINGSTON FRI, JULY 19, 1850

THE COBOURG STAR, quoted in the MORNING CHRONICLE, QUEBEC, July 20, 1850

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

(a) One of those dreadful storms which are the counterpart of the tornadoes of the west Indies. The body of water in a sawmill dam raised from its bed.

(b) A part of a cloud dropped, forming a huge waterspout at the head of Lake Scugog.... (looked like) the black smoke emitted from the funnel of a steamboat burning pine or pitch. This waterspout took up water for about 12 minutes ... when a vivid flash of lightning was seen from the spout which caused an explosion... We could now see it coming towards us, tearing with it everything in its course... The storm did not travel as quick as might have been expected, for it did not pursue a straight course – it was a whirlwind.

(b) Houses, barns, outbuildings demolished or very badly damaged. Debris carried up to 10 miles. In one case the second storey of a house along with barrels of pork flour, clothing bedding etc lifted off, and rafters were found 3/4 mile away driven half way through a stump. Animals blown against trees and fences and killed. Some cattle belonging to Mr Bronson blown into a pond and drowned. His sawmill, house + barns over

were blown to pieces. Sawlogs 4 to 5 ft in diameter and too big to be sawn were carried endwise for several rods. A potash kettle on his property was carried several rods and laid bottom upwards, covering a lamb which was freed and found unhurt. Two people (his oldest son, and a relative by marriage) were killed in the collapse of the Ironsa home.

A reporter from Scott township climbed a hill and found the forest timber completely destroyed in both directions as far as the eye could see.

THE "LAKE SCUGOG" TORNADO
JULY 5, 1850

WORKSHEET

...IDTO...

① ORIGIN x 1762140.00
y 489500.0

⑤ Standard Error S_x C 5000

② LIFT-OFF x_1 1769300.0
y_1 487500.0

⑥ Standard Error S_y C 8000

③ $(x_1 - x)$ = .71600

④ $(y - y_1)$ = 20000

⑦ DAMAGE LENGTH

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

③+④ [→r,θ] = .74341

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

[x↔y] = 16°

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

⑤+⑥ [→r,θ] = 9434 C

⑩ $\beta = \dfrac{\tan^{-1} S_L}{L}$

⑦+⑨ [→r,θ] [x↔y] = 7°

NE Quad $\phi = 90 - \alpha$
NW Quad $\phi = 270 + \alpha$
SW quad $\phi = 270 - \alpha$

SE quad $\phi = 90 + \alpha$

⑪ ϕ = 286°

Max damage width 1·6 km
average damage width 500 m. (approximate)
damage area 37 km² (approximate)

DEATHS

MR MONTGOMERY'S SERVANT
MAN (RIBS CRUSHED BY FALLING TREE)

MRS IRONSON'S SISTER-IN-LAW

SON OF MR IRONSON

MR McMILLAN

a horse + several sheep.
cattle blown into water and drowned

INJURIES

A WOMAN'S ANKLE FRACTURED BY HAILSTONE.

JOHN GILPIN
JAMES CAVE
ONE MR IRVING'S FAMILY

THE MORNING CHRONICLE, QUEBEC. JULY 20TH. 1850.

FROM THE COBOURG STAR (U.W.O. Micro-film collection.)

STORM DATE. FRIDAY JULY 5TH. 1850.

AWFUL TORNADO IN CARTWRIGHT AND DARLINGTON.

At about quarter to 4 o'clock I was at MR. DAVID HOOEY'S in CARTWRIGHT, and from the gloomy appearance of the heavens I was induced to remain till the threatening storm should have passed; I never beheld a more gloomy sky, to the northward nothing could be seen but one black mass of rolling clouds, carried along with a velocity beyond conception, while to the southward everything looked calm and serene. From the direction of the storm the lightning was emitted with a vengeance which seemed to threaten destruction to everything around, then would follow a long loud peal of thunder, which appeared never to come to an end. For about twenty minutes those appearances continued, when it was observed that those black rolling clouds had become quite compact, and had moved considerably to the westward, apparently hovering nearly in one place, when all at once part of it dropped forming a huge water spout at the head of LAKE SCUGOG (about 4 miles from where I was) and which threatened to drink the SCUGOG dry. I could compare it to nothing but the black smoke emitted from the funnel of a steamboat burning pine or pitch.

This water spout took up water for about twelve minutes, when another long loud peal reverberated through the sky, then a vivid flash of lightning was seen from the spout which caused an explosion, and like a shot from a heavy piece of ordnance, the tornado proceeded on its mission of destruction and desolation. We could now see it coming towards us, tearing with it everything in its course, limbs of trees were flying at an almost incredible height in the air, the crackling of the trees were distinctly heard amid the loud roar of the tempest. The storm did not travel as quick as might have been expected, for it did not pursue a straight course —— it was a whirlwind —— it twisted off every tree in its course —— it was an awfully grand sight —— now the storm nears us —— but we are luckily in its outskirts —— here is wind, and hail

if I may call it hail, it was pieces of ice as large as hens' eggs which soon melted beneath the heaviest rain I have ever seen, and which continued for about twenty minutes, at which time we perceived allthe fences thrown down with the wind. About half an hour after the storm was over I proceeded to DARLINGTON. As I went along I perceived several pieces of ice which had stood the rain, and were yet as large as those I have already described, those must have been at least four times as

SCUGOG TORNADO.CONT.

as large as the ones we picked up ,and which I was assured they really were by persons who were there.Here before me lay large trees across the road,some of them torn up by the roots,others of two and three feet in diameter broke,or twisted off close to the ground,Having passed those obstacles,the first thing that presented itself was one vast "wilderness of waste",as far as the eye could reach,of what one hour before was a proud forest,was now laid even with the ground.To describe it would be impossible;suffice it to say that not a single tree was left standing; and beneath this levelled forest were cattle,horses,and sheep,many of which were killed,others with their limbs broken or torn in a fearful manner,and hemmed in so that it will be next to an impossibility to extricate them.

But this is not a tithe of the damage done —— the storm must necessarily pass through many clearances,and I will endeavor to give you an idea of the destruction it has done in the rear of DARLINGTON. which I gleaned before I left,and which was done within about one mile of its course.In the first place there is not a single fence that has not been carried away,nearly every house and barn has been unroofed or carried away,sheep,hogs,geese,etc.,blown against stumps,etc.,killing them or breaking all their limbs,crops of every kind completely destroyed, hundreds of acres of wheat broken down to die with the first scorching sun,hay that was cut carried away,potatoes broken down so that they will never come to perfection.This is but a faint idea of the loss sustained, but I must tell you that any house which was not entirely blown away was either unroofed or torn in such a way as to make it uninhabitable;one house I passed had the whole of the upper storey blown off,and several barrels of flour,pork,etc.,together with all their clothing,bedding,etc., lifted out of the house —— where the roof went to has not been ascertained —— one of the rafters,however,was found three quarters of a mile away driven half way through a stump;the servant man of MR.MONTGOMERY had the ribs all broken off his back bone with the limb of a tree,another man had his back broken ,a woman had her ankle fractured with a hail stone.Such are some of the facts relating to this sad affair.A surgeon was riding from place to place rendering his assistance to the wounded, some of whom it is feared will never recover.

To give a full account of the many singular incidents of the hurricane would be useless.One thing I will,however,mention; MR.SMITH, who is a large sufferer,had just returned with a load of wheat and some

SCUGOG TORNADO.CONT.

iron —— his wagon with its load,was lifted up and set upon a wood pile several rods off —— several occurrences of this kind might be recorded if necessary.

Annexed will be found the names of some of the sufferers in a portion of the TOWNSHIPS of DARLINGTON,and I have no doubt you will hear of a like destruction through the TOWNSHIP of REACH,and the west part of DARLINGTON.The storm only extended about a half a mile in width, and I think it has carried a corresponding desolation for about fourteen miles in length:—

JOHN GILPIN'S house and barn blown away,together with all his wheat destroyed,all his cattle killed,himself severely hurt;WILLIAM RANTON'S barn blown away,also WILLIAM SHAW'S and RICHARD SHAW'S barns, all their woodland broken;ANDREW MONTGOMERY'S house,barn and driving house,his man dangerously hurt;PARR'S house and barn;SWAINE'S house: CHARLES VIRTUE'S house tossed;WILLIAM SLEMING'S house and barn gone; MR.SMITH'S MILL,house,barn,stables,sheds,etc.,(6 in all)a horse and several sheep killed;ROBERT HALL'S house and barn;RIGG'S barn;TRUMAN'S barn and sheds;S.SOPER'S house and barn;JAMES CAVE'S house blown away and himself nearly killed;McNEILL'S barn torn to atoms;GILBERT'S house and barn; JAMES McLAUGHLIN,jun.,,house and barn;JAMES McLAUGHLIN sen.,house and barn; CHAMPINE'S house,MILL,barn,sheds,etc.,together with all the fences in the neighborhood,form but a part of this dreadful tornado.

COBOURG STAR.

THE WEEKLY BRITISH WHIG,KINGSTON.FRIDAY EVE.JULY 19TH.1850.

STORM DATE.FRI.JULY 5TH.1850.

DREADFUL WHIRLWIND. (FROM THE WHITBY REPORTER)

One of those dreadful storms which are the counterpart of the tornadoes of the West Indies,and the hurricane of Oceania,visited some of our neighbouring townships on Friday the 5th.inst.The description of it with which we have been favoured brings one in mind of the opening scene of the Tempest;the roar of the wind,the creaking of the vessel,the shouts of the seamen,tattling of the cordage,the blaze of the lightning,seemed but to have been but a vivid description of such a scene at sea as has happened on dry land with us.The first notice of the storm of which we have heard,was in its sweeping across LAKE SIMCOE and bursting on the TOWNSHIP of GEORGINA.We have not heard the direction in which it entered the township,but its course afterwards,if our readers will look at a map of the county,will seem to have in the

ways move in a circular track.From GEORGINA it whirled on tempestuously through parts of the TOWNSHIPS of BROCK,REACH,DARLINGTON,and CLARKE,and then leaving the land swept on with wild commotion across LAKE ONTARIO to the other side,which it struck apparently below OSWEGO,and continued its desolating course thence southeasterly,trampling on like the rush of an army of fiends along the course of the ERIE CANAL to ALBANY.What destruction it took from that city,or whether its fury was spent by the time it reached it ,we have not heard.Everywhere,however,in this immense distance,its presence has recorded itself by desolation and ruin. THOMSON'S description of the storm might have been written with reference to it,with this difference only,that this one was more fearfully severe than that of the poet.Of it might be said during its fury:

Huge uproar lords it wide.The clouds coming
With stars swift gliding along the skies
All nature reels;Till natures King who oft
Amid tempestuous darkness dwells,alone,
And on the wings of the catering winds
Walks dreadfully serene,commands a calm;
Then straight air,sea,and earth are hushed at once.

Of course all the particulars of so great a calamity will never be known, but such as have reached us ,we subjoin.Several accidents have happened in SCOTT and other townships and everywhere terrible losses have been suffered by the killing of cattle,and the destruction of houses,barns,

TORNADO,JULY 5TH.1850.CONT.

crops,fences,mills,mill dams,trees,etc.etc.

MR.BUSH,of this place,from whom we gather some of these particulars, informs us respecting SCOTT,that having gone out to the 5TH.CONCESSION, of that township to look at the land,he found the timber on it completely destroyed,the entire forest in both directions as far as the eye can reach,(viewed from a high eminence in the vicinity of MR.IRVING'S), being laid prostrate,to a breadth varying from a quarter to a full mile.

On the destruction in REACH we have heard some melancholy details. MR.IRONSON,of the 10TH.CONCESSION,has been especially visited.His house stood directly in the path of the storm,which in a moment blew it into fragments,carrying some of them even to SCUGOG ISLAND,a distance of more than 10 miles.In its fall it unfortunately destroyed the lives of two persons;his wife's sister-in law,who came from the old country only a few weeks ago,and his own eldest son.His SAW-MILL was completely destroyed; some of his cattle ~~xxxx~~ were blown into the water of his dam and drowned; and the body of water itself was raised from its bed,and has washed out for itself another for several feet beyond.Besides his house and saw-mill, his barns,sheds,etc were blown away;and his fences,crops and orchards are scattered and destroyed.So violent was the tornado at MR.IRONSONS' that saw logs,between four and five feet in diameter,and consequently too large to be sawn,and which could not have been stirred by two span of horses,were moved about two rods endways;and four hundred acres of valuable pine woods belonging to him were laid completely prostrate,and rendered useless.A chest belonging to a workman in his employment was broken to pieces and its contents scattered,including a pocket book with money to the amount of $100 which,strange to say,has been found.A singular incident happened on MR.IRONSON'S property;a potash kettle was taken up by the wind,from near the saw mill,and after being carried several rods, was laid down,bottom upwards,covering a lamb,which was afterwards freed, and found to be perfectly unhurt.

Other sufferers are spoken of in REACH.MR.IRVING,in the Northwest corner of that township,suffered severely;his crops,house and barn are completely swept away and one of his family hurt but not seriously. ISAAC FRALICK,5TH.CONCESSION,lost his log barn,his house was uncovered and his fences blown away.MR.BROWN'S house was unroofed,and his fences blown away.ABNER HURD'S SAW MILL was unroofed and his woods destroyed etc. We have heard of the names of messrs M.C.McLAREN,JAMIESON,DOBSON,WELLS, and HORNE,as also among the sufferers;their barns,sheds, crops,fences,

TORNADO,JULY 5TH.1850.CONT.

woods and cattle,being various injured and destroyed.MR.WARREN'S house, sheds,barns,fences,and crops are destroyed.The storm passed between the villages of PRINCE ALBERT and CRANDLE'S CORNERS,but happily without entering either.A pile of lumber,lying within ten feet of a house that was destroyed near the latter place was left untouched.

The portions of the roads that the storm has crossed,have all been torn up,and made almost impassable,

We are sorry to hear that a MR.McMILLAN of the TOWNSHIP of CARTWRIGHT was killed.We have not heard of any particulars from that quarter.Next week we hope to be able to give further details.

WHITBY REPORTER.