
**Probable Tornado
Balsam Lake, Ontario
July 15, 1995**

Date- Local: Saturday, July 15th, 1995

UTC: Saturday, July 15th, 1995

Time- Local: 0235

UTC: 0635

Location: Balsam Lake

Region: Peterborough-Kawartha Lakes

Classification: Probable Tornado

Category: C-1

Casualties: None

Track Length: None available

Width: None available

Motion: None available

Damage Estimate: \$750 000

F-Scale Rating: F1

Code: MH

Damage Survey: None

Spotter Reports: One

Other Documents:

Storms damage summaries, Rob Kuhn

Newspaper Articles

sj/s

Meteorological Service of Canada
4905 Dufferin Street, ARMP
Downsview, Ontario M3H 5T4
CANADA

Spotter Reports, July 15, 1995

CLASSIFICATION: Severe Thunderstorm **SOURCE/WATCHER ID:** f **EVENT TIME (UTC):** 07-00 **EVENT DAY:** 15.0 **MONTH:** 7.0 **YEAR:** 1995.0 **EVENT DURATION (HR):** 0.0 **(MIN):** 0.0 **DAY OF THE WEEK:** **EVENT LOCALE:** Balsam Lake - Fenelon Falls, Victoria Co. **ASOCTD PUBLIC RGN:** Peterborough and the Kawarthas **DETAILED DESCRIPTION:** "5 mobile homes destroyed. 1 metal building flattened. Possible tornado." **INITIAL ASSESSMENT:** YES **SPL WX STATEMENT IN EFFECT ?:** UKN **STATEMENT LEAD TIME (HR): (MIN):** **WATCH IN EFFECT ?:** UKN **WATCH LEAD TIME (HR): (MIN):** **WARNING IN EFFECT ?:** UKN **WARNING LEAD TIME (HR): (MIN):** **TORNADO:** POSSIBLE **WINDSPEED:** **RAINFALL:** **MM RAIN DURATION:** **HAIL DIAMETER:** **MM HAIL DESCRIPTION:** **EVENT DESCRIPTION:** Tornado **Mesoscale ?:** **Synoptic ?:** **Big Event ?:** **Statement Est Hit/Miss:** **Watch Est Hit/Miss:** **Warning Est Hit/Miss:** **Separate Event (30km/30min):** YES **Vetted by:** **Vetted date:**

Metecrological Service of Canada
4905 Dufferin Street, ARMP
Brampton, Ontario M3H 5T4
CANADA

Storm Damage Investigation
July 17, 1995

F. Conway and T. Bullock

A two-person team visited a number of sites with reported wind damage from the July 15 convective storms over Southern Ontario. The sites visited ran roughly in a line from Kirkfield (east of Orillia) to Bridgenorth (north of Peterborough), following a path traced from weather radar (see Fig 1). The damage seen was mostly consonant with narrow-path straight-line wind damage (possibly downburst), but with some localized rotational damage, possibly induced by the strong winds ("gustnado").

A member of a Hydro crew did report damage at Codrington (north of Brighton) which he considered tornadic (buildings shifted off foundations). We did not visit this more distant site.

Site Reports:

a) Kirkfield (see Fig 2)

We noted considerable tree damage, but no structural damage apart from that caused by falling trees. Approaching the town, isolated tree-limb damage was visible. The greater damage area was confined to the town itself, with indications of a "core" perhaps 12 metres wide and 100 metres long (McKenzie home), aligned approximately northwest-southeast (from orientation of the damage path and the fallen trees), and likely a second parallel "core" about 50 m just to the north. Several 100-year old Norway pine were snapped off at about 5 m height; the owners felt that about 70 trees had been damaged or blown down on the property. The owners had been awakened by the storm, but had noted no particular noise. There was no apparent damage to any roofs (no evident missing shingles).

b) Long Point (Cottage Community on Balsam Lake - see Fig 2)

We were directed here by one of the staff members at the Kirkfield Lift Lock. Again the damage was confined to trees (and collateral damage), in a pattern consonant with a straight-line damage. Within the community, there was fairly extensive but isolated damage (broken trees here and there) - but one extensively damaged property was identified. The damage "path" appeared to be about 12 metres wide, starting at the lake shore (facing northwest) and about 30 m deep. Shallow rooted trees were blown over, several were broken off at about 4-6 m height. The only direct damage to the cottage itself appeared to be the television antenna (falling trees damaged several vehicles and "cut" an associated cabin in two). The owner described the event as abrupt, with no particular accompanying sound effects. A brief though intense rainfall came after the damage. The owner noted that the power went off at about 2:35 am.

There were reports of damage at a trailer park nearby,

roughly in a line toward Kirkfield. We did not visit the site.

c) Fenelon Falls

We drove through Fenelon Falls. We saw essentially no damage until almost entering the town, and noted occasional tree damage, mostly in the southern and eastern portions of the town. There was no evident structural damage, and certainly no visible damage comparable to that at Kirkfield. It is possible that localized damage was missed.

d) Lindsay

While driving through the town, we saw no damage of any significance (occasional broken tree limb).

e) Omemee (Fig 3)

We noted a collapsed barn beside the highway, just outside Omemee, and spoke with the owner. The damage occurred at about 2:30 Saturday morning, accompanied by a distinct roaring (comparable to a train, but lacking the metallic sound). The barn was demolished, leaving almost undisturbed some hay stored in the barn, and a collection of palettes located behind (southeast of the barn). Debris appeared for the most part to be to the southeast of the barn's position, but the owner indicated that some must have crossed the road (toward the northeast), and pointed at a definite swirling to the west of the barn (about 4 m in radius). He also pointed out an electric motor (1/2 horse) that had been separated from the frame to which it had been attached, likely by flying debris (it had been near or on the ground, to the east of the barn. He also noted that there had been other trees blown down (18" diameter), on a neighbour's property (looked to be 200 metres away). The nearby house was undamaged, except that a porch facing the road was somewhat more detached from the house than had been the case.

The owner's son was wakened by the storm, remarked on the sound, noted that the drapes in his bedroom (facing west) blew in at almost right-angles to the wall for the short duration of the storm, and indicated that there were further signs of rotation in the garden to the southeast of the barn (not visited). The barn's foundation was essentially intact, though in poor condition due to age.

There was no defined damage path or track visible.

f) Bridgenorth (Fig 4)

We continued on to Bridgenorth, north of Peterborough. There was essentially no sign of damage until we entered the town itself. With the exception of Dutch's Marina, the pattern was one of straight-line damage, worse near the lakeshore (to the northwest). Hydro crews indicated that about 8 poles had been blown down on the main street. The area of considerable damage appeared to run from a cemetery on the south to north of Dutch's Marina, a distance of about 600 m. The town is

about 300 m wide, rising about 20 m in elevation from the lake shore.

Dutch's Marina (see sketch, Fig 5) was extensively damaged, together with nearby houses, with a core area about 60 m wide. The principal building (two storey steel frame) was still standing, but the sheet metal roof and side walls had blown clear, together with several panels from the front. Roofs had been removed or badly damaged in nearby structures, and a low concrete block structure (single block width wall) in front of the principal building had been blown over. Boats docked in front of the marina were essentially undamaged (some reported damage to canvas boat covers).

There was some indication of rotation in the damage pattern. What must have been the roof of structure C (see sketch) was sitting to the southwest of the structure itself. Windows on side walls of houses F and G were broken, suggestive of widely scattering debris. A lamp standard (metal pole) located in front of house E was bending in a roughly northeast direction. Pieces of sheet metal were noted about 100 m northeast along the roadway, not far from an undisturbed pile of gravel.

Police indicated that there were three reports of spotted tornadoes. A couple living in a boat docked at the marina stated that it had been too dark to see anything, but did note that there had been strong surface winds, threatening to blow in a window on the boat.