Confirmed Tornado Rice Lake, Ontario August 20, 2009

Date- Local: Thursday, August 20th, 2009

UTC: Friday, August 21st, 2009

Time-Local: 2030

UTC: 030

Location: Rice Lake/Otonabee South Monaghan

Region: Peterborough - Kawartha Lakes

Classification: Confirmed Tornado

Category: C
Casualties: None

Track Length: 10248.75 m

Width: None available
Motion: 190.36 degrees
Damage Estimate: None available

F-Scale Rating: F1

Code: AH, BS

Damage Survey: Yes done by Arnold Ashton and Lindsey McCallum

Spotter Reports: None

Other Documents:

Storm damage survey report filled out by Brad Rousseau based on Arnold

Ashton's data

Aerial and ground photos of damage

Tornado F-Scale Assessment

Brad L. Rousseau Tornado Data Production Assistant, Environment Canada February 12th, 2010

Classification: Confirmed Tornado Date: Thursday, August 20th, 2009

Location: Rice Lake, Peterborough - Kawartha Lakes Region

Assessment: F1 F-Code: AH, BS

Explanation of Assessment: Well built house with aluminum roof had large section of aluminum removed. Storage building had roof removed and some walls blown out.

SJS

OSPC Storm Damage Survey Report

Investigators #1 (Lead) #3

#4

Location / Region Rice Lake/Otonabee South Peterborough - Kawartha

Monaghan Lakes

#2

Event Date Local / UTC

(YYMMDD) 2009-08-20 2009-08-21

Event Time Local / UTC 2030 030

Severe Weather Event Type Tornado

Classification C

F-scale Value F1

F-scale Code AH, BS

Start Lat / Long 44.211456 -78.150194

End Lat / Long 44.302278 -78.126957

Path Length (m) 10248.75

Motion (degrees) 190.36

Max. Path Width (m) width

Avg. Path Width (m) width

Human Injuries / Fatalities 0 0

Animal Injuries / Fatalities 0 0

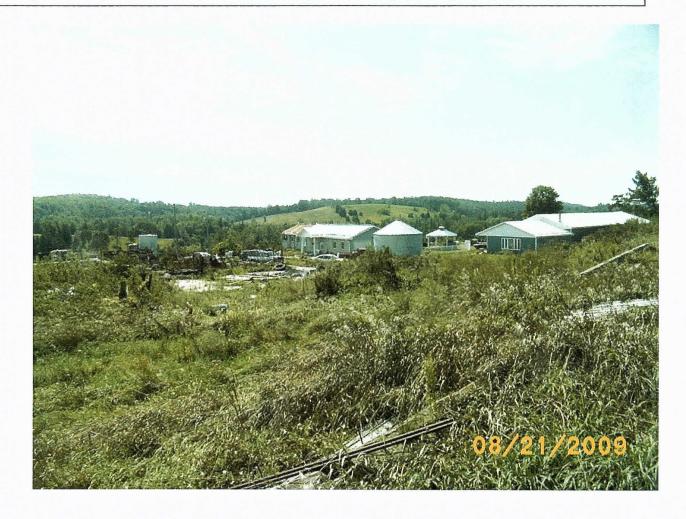
Damage (\$K) / Source 0

Damage Description Well built house with aluminum roof had large chunk removed. A

storage building had roof removed and part of the walls blown out.

Other Notes There is a very distinct path cut in a corn field, with damage very

localized. Neighbours had no damage

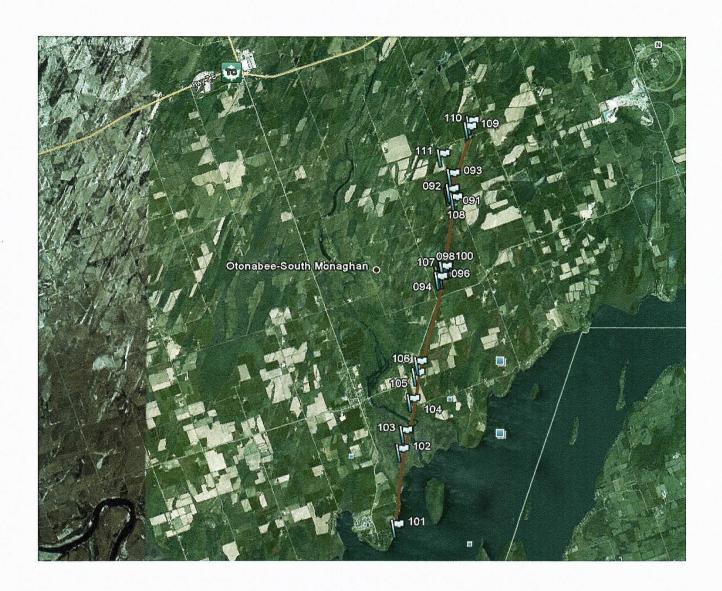












Rice Lake Tornado - Damage Survey Information:

Summary:

Date: August 20th, 2009 Time: Around 8:30-8:50 pm Location: Rice Lake/Keene Area

Surveyors: Arnold Ashton & Lindsay McCallum Damage Path Length: Approximately 12 km

Path Width: Approximately 100 m

F-scale Rating: F1

(Note: rating was based on the fact that a car was moved/rotated 3.5 feet)

Way Points (#90 - #111):

90 - Location of house with damaged roof on 1630 Settlers Lane

91 - Location of "pole barn" that was blown down on 1630 Settlers Lane

92 – Location of "tarp barn" that was flattened on 1630 Settlers Lane

93 – Roof from house on 1630 Settlers Lane blown NE to this location

94 - Location of tree damage, large trunk snapped half way up.

95 & 96 – Path width

97 - Location of barn with roof 2/3 gone (thrown 300 m NE) on 3780 County Rd 2

98 - Trees snapped

99 – Large pine tree (trunk diameter = 2-3 ft) snapped half way up

100 – More trees snapped

<u>Note:</u> All waypoints above 100 (i.e. 101-111) were taken while on the aerial survey. An attempt was made to have the waypoints correspond with photographs being taken from the plane (see photographs).

Video:

The video camera was loaded with a tape that should not contain any material other than the aerial survey. The video is approximately 15 minutes and includes travelling along the damage path one way (SW \rightarrow NE) and then going back along it again (NE \rightarrow SW). Filming from the airplane was difficult so I am not sure how useful the footage will be.

Photographs:

The photos that were taken for the rice lake damage survey are from 32-71 on the Canon camera. Before photograph #32 are images from a prior damage survey.

• Photos from 1630 Settlers Lane:

#32 – Facing West. Extensive roof damage (half peeled off and blown away) on house.

#33 – Facing West. Tilted column and spatter on east side of house.

- #34 Facing NW. Close-up of spatter of front door and on windows. Screens were blown into the house along with leaves and branches.
- #35 Spatter also located on the north side of the house.
- #36 Facing North. Impact marks made on Aluminium siding and dents along roof.
- #37 Facing West. Metal fence with brick/stone pillar moved several inches.
- #38 Facing SSW. Original location of old "pole barn" that was blown down.
- #39 Facing NE. Flattened "tarp barn."
- #40 Roof of pole barn that was removed during storm.
- #41 Structural attachment of pole barn roof; two nails per truss.
- #42 Puncture mark from missile puncturing right through metal barn roof.
- #43 Close up of metal barn roof; details of attachment.
- #44 Facing West. Close up of house roof damages on the SE corner of the structure.
- #45 Looking NW. Roof damage.

• Photos from 3780 County Rd. 2 – Otonabee-South Monaghan:

- #46 Looking SE. Tree damage along driveway.
- #47 Looking SE. Tree damage along other side of driveway, indicator of path width.
- #48 Photo of barn with 2/3 of the roof lifted off (repairs were being made) and blown 300 m north east.
- #49 Looking NE. Base of large pine tree that was snapped about half way up, trunk diameter = 2-3 ft.
- #50 Looking NE. Wider view of pine tree damage with top of tree snapped off.
- #51 & 52 Facing North. Trees further along the damage path, with their tops snapped off.
- #53 Photo of Arn standing beside our sea plane! ◎

• Photos from the aerial survey:

#54 to 56 – Arn's "scenic shots" of the islands on Rice Lake.

#57-71 – Shots taken of the damages caused by the tornado as seen from the plane. Roughly correspond to the waypoints, although there were more photographs taken than waypoints plotted.

IMPORTANT NOTE: I will be leaving the camera, GPS and video camera with all of the information from this damage survey in the top drawer of Vicki's desk. I attempted to download the pictures and waypoints but the PC computers with the camera software and Google Earth on them were being used by the people working project shifts.