## Confirmed Tornado Feversham, Ontario September 25, 2005

Date- Local: Sunday, September 25th, 2005

UTC: Monday, September 26th, 2005

Time-Local: 2000 EDT

**UTC:** 0000

**Location:** Feversham, Ontario **Region:** Barrie – Orillia - Midland **Classification:** Confirmed Tornado

Category: A Casualties: none

Track Length: 300 km (approx)

Width: 40-60 m Motion: 220 degrees

Damage Estimate: not estimated

F-Scale Rating: F1

Code: BS

**Damage Survey:** Yes **Spotter Reports:** Yes **Other Documents:** 

Damage survey report

### **Tornado F-Scale Assessment**

Dave Sills Severe Weather Scientist, Environment Canada October 29, 2007

Classification: Confirmed Tornado Date: Sunday, September 25th, 2005

Location: Feversham, Barrie - Orillia - Midland

Assessment: F1 F-Code: BS

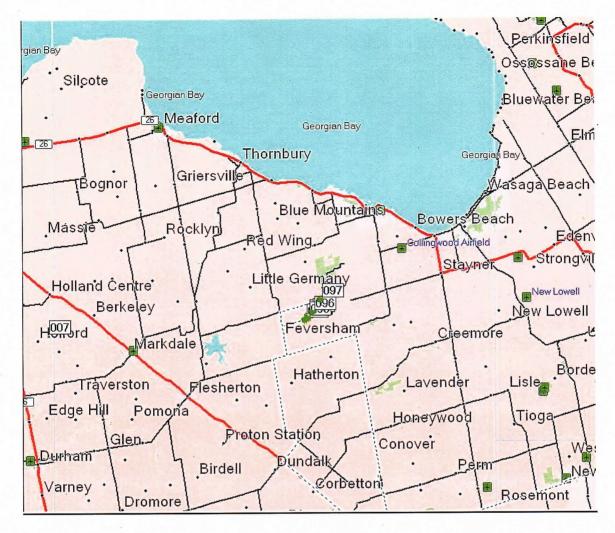
**Explanation of Assessment:** Barn roof totally removed...two walls severely damaged. A cinderblock shed/barn levelled. An equipment shed totally destroyed. A hay barn (roof and 4 supports, no walls) totally destroyed. Some of the barn/shed debris carried almost 1 km from original location.

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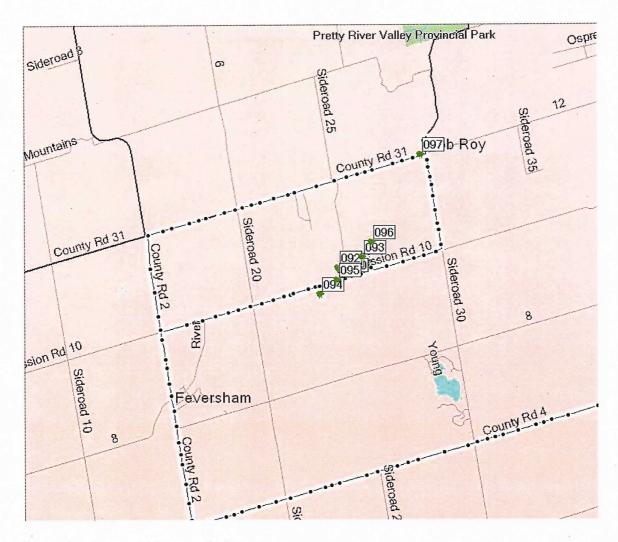
## **Quick Facts**

Severe Weather Type	Tornado
Location	Approx. 5 km northeast of Feversham, Ontario (20 km southwest of Collingwood)
Time	Approx. 8 PM
Duration	Approx a minute or less for greatest damage
Magnitude	F1
Path Length	Less than 1 kilometre for tornadic damage
Direction of Motion	Tornado moved from the southwest towards the northeast
Max. Path Width	Approx. 50 to 60 metres
Significant Damage	Barn roof totally removedtwo walls severely damaged. A cinderblock shed/barn levelled. An equipment shed totally destroyed. A hay barn (roof and 4 supports, no walls) totally destroyed. Some of the barn/shed debris carried almost 1 km from original location.

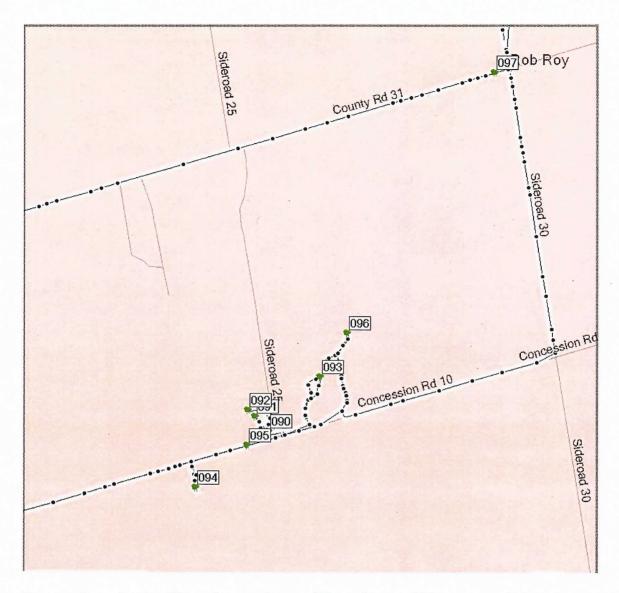
Maps of Area and Waypoints



Feversham Area Map at 10 km resolution



Feversham area at 1 km resolution



Damage Investigation Waypoints northeast of Feversham at 500 metre resolution

### <u>Description of Waypoints and Pictures taken during Feversham Tornado</u> <u>Investigation</u>

Waypoint 094 – First indication of damage. An examination of the field to the southwest of this point showed no indication of structural, tree or crop damage. An equipment shed was totally destroyed at this location. Smaller farm implements were carried 10's of metres from their original location. A large piece of farm machinery was not appreciably moved. Picture 0244 was taken facing the northeast of the foundation area of this shed and shows some of the contents of the shed strewn off to the northeast. It also shows the largest piece of farm equipment to the right of the picture was not moved. Picture 0245 is another shot facing northeast of the destroyed equipment shed. Picture 0246 was taken facing west from the destroyed shed and shows a small storage shed that was untouched by the damaging storm...this shed was approximately 20 metres west of the destroyed

shed. Picture 0247 is facing the southwest and shows the undamaged shed in relation to the destroyed shed and the debris scattered from the destroyed shed.

Waypoint 095 – location of an uprooted tree on the north side of Concession Road 10. No picture of tree taken. Tree was partially rotted from the inside.

Waypoint 090 - Tyson Farm at the corner of Concession Road 10 and Sideroad 25 in the Municipality of Grey Highlands. This was the location of the most intense damage that lead to Fujita Scale 1 Tornado determination. Barn at this location had roof totally removed and two of the walls severely damaged. In addition a cinderblock shed/barn was leveled as well a hay barn (a roof supported by four poles) was totally destroyed. Farmhouse about 40 to 50 metres to the southeast of the barns and shed was not damaged in any way. Short video 0231 shows the barn which lost its roof...the video is taken facing the east. Picture 0232 is taken facing the northwest, the fencing shown is about 30 metres to the west of the barn but it is believe that this material wrapped around the fencing is from the equipment shed destroyed at Waypoint 094, a distance of over 650 metres away. Picture 0233 shows the barn with the roof removed, the shot was taken facing the west and shows the significant damage done to the eastward facing wall of the barn. Picture 0234 was taken facing north and shows some of the debris in the farm yard. Picture 0235 is a shot taken facing the south and shows the significant damage done to the north facing wall of the barn as well as the remnants of the cinderblock shed/barn in the foreground. Basically on the foundation remained of the cinderblock structure. Picture 0236 is a shot similar to the previous but shows the green-tinged roofing from the remnants of the hay barn in the foreground. Picture 0237 is taken facing to the east and northeast and shows the debris from the Tyson farm scattered over the adjacent property. Picture 0238 is another shot of the severely damaged barn and destroyed cinderblock shed and hay barn facing the west. Picture 0240 shows remnants of the hay barn (greentinged roofing) scattered across the adjacent property...picture taken facing the east. Picture 0242 shows tree damaged just to the northeast of the farmhouse (or approx. 50 metres east of the barn). As picture shows, the tree was fairly rotten.

Waypoint 091 – Three pieces of wood debris driven into the ground at this position, approximately 140 metres northwest of the barn at waypoint 090. See picture 0241 which shows this wood...the picture was facing the north. All three pieces of wood were not embedded deeply into the ground and were able to be moved (and could have easily been removed from the ground)

Waypoint 092 – approx 200 metres northwest of the barn. This area had metal debris from either the barn or the equipment shed at waypoint 094. Given the fog it was impossible to tell if more debris was present further north from this location.

Waypoint 093 – Gravel Pit approximately 500 metres northeast of the Tyson farm. Picture 0243 was taken in the Gravel Pit facing north and shows the presence of corrugated metal from the Tyson farm.

Waypoint 096 – Two properties east of Tyson Farm. Picture 0248 was taken at this location facing west and shows scattered debris in field from Tyson farm. Pictures 0249, 0250 were taken at the eastern edge of this property facing east and southeast. More debris was evident even further to the northeast of this location. Measurement from the GPS shows that debris from the Tyson farm was carried almost 1 kilometre from its original location

Waypoint 097 – the hamlet of Rob Roy. Reports from the area indicated a shed/barn near the church in Rob Roy had sustained minor damage...inspection of this shed/barn did not show any significant damage, so I assume minor repairs had already been done.

#### Interviews

Interviews were conducted with the Tysons and the Mullers (who lived just south of the Tyson's). Neither family was home at the time of the storm. However, a later interview with the Muller's son, Gottfried was of interest. Gottfried has a small home just east of his parents on the south side of Concession Road 10 near Sideroad 25. Gottfried was home at the time and described what occurred on the evening of September 25<sup>th</sup>, 2005. According to Gottfried the storm reached its peak around 8:15 PM (but he couldn't be sure of the exact time). He mentioned that very heavy rain had been occurring for a few minutes and then his whole house began to shake. This caused him to seek shelter in the basement. Soon after seeking shelter he heard a loud bang which he now believes was the barn roof being torn off the Tyson barn. Immediately after the loud bang his house stopped shaking and he came up from the basement to see what he thought was a funnel-shaped cloud moving off to the northeast towards Collingwood. However, it was pretty much dark by this time and he could not be certain it was a funnel shaped cloud.

#### **Summary**

Based on the damage evidence I witnessed during my investigation on Monday, September 26th and the account provided by Gottfried Muller, I categorized this event as a Fujita Scale 1 tornado. Key elements to this diagnosis was the damage done to the Tyson barn, the concentrated nature of the damage (i.e. barn severely damaged but farmhouse nearby untouched), the fact that the damage was strewn in a number of directions (though most of it was concentrated in a northeast direction) and the fact that little or no tree damage occurred in the area. The tornado itself only appears to have been on the ground for a matter of a few hundred metres (given lack of other apparent damage to the northeast of the Tyson farm) and the maximum width was approximately 40 to 60 metres based on the most concentrated area of debris on the Tyson property.

Geoff Coulson

October 4, 2005



29/10/2007 2:14 PM