



ESSL IF-Scale Tornado Summary

Tornado in Montville, France

Event date and time:
Maximum intensity:
Strongest damage area:

19 AUG 1845, 1215 UTC
IF5
Malaunay Valley

Newly built and recently completed weaving mill, a four-storey building with solid brick structure was fully destroyed. At least 75 people were killed.



Trouble de Bouville.

Weaving Mill Picquot-Deschamps:

The weaving mill was a newly built and recently completed four-storey building with a solid structure. It was reported that the sturdiness of the structure was considered as overdone by comments in local press. It had thick clay brick walls. Based on damage reports in newspaper and scientific articles (in French, English, and German), at least 2/3 of the building was destroyed.

IF-Scale damage indicator (DI): BS (building, structural elements)

IF-Scale sturdiness class: E (Sturdiness D unlikely since wall structure seemed very strong)

IF-Scale Degree of Damage (DoD): 2
(Near complete destruction, more than 2/3)

Result for sturdiness class E: IF5

Number of analyzed damage photos: none
Number of used historical illustrations: 1 sketch
Additional information analyzed: 8 pieces of written damage accounts.

Some limitations: Unknown brick and mortar quality, unknown effect of clean-up works (sketch).

Sources:

Newspaper: The Observer (Dispatch dated from 23 Aug 1845), 09 DEC 1845.
Newspaper: La Presse, 21 AUG 1845
Science: Faye, H.: Nouvelle Étude sur les tempêtes, cyclones, trombes ou tornados. Paris, 1897
Science: Wegener, Alfred: Wind- und Wasserhosen in Europa. Braunschweig, 1917 including correspondence by Preisser (L'Académie, Rouen), Arago, Nell de Bréauté, and Lecoq
Science: Pouillet, Claude: Note sur le météore de Malaunay. In: Compt.rend.etc., 1845
Science: Martins, C.: Anweisung zur Beobachtung der Windhosen oder Tromben. In: Poggendorfs Ann.Phys., 1850
Science: Reye, Theodor: Wirbelstürme, Tornados und Wettersäulen in der Erd-Atmosphäre. Hannover, 1872
Website: KERAUNOS – Observatoire français des tornades et orages violents (keraunos.org)
Sketch: Librairie Hachette et Cie. Paris, 1886

The International Fujita Scale (IF-Scale) documentation is available here:
<https://www.essl.org/cms/research-projects/international-fujita-scale/>