



ESSL IF-Scale Tornado Summary

Tornado from Volpago del Montello to Nervesa della Battaglia, Italy

Strongest damage concentration:

Selva del Montello

Event date and time:

24 July 1930, 11:16 UTC

Maximum intensity:

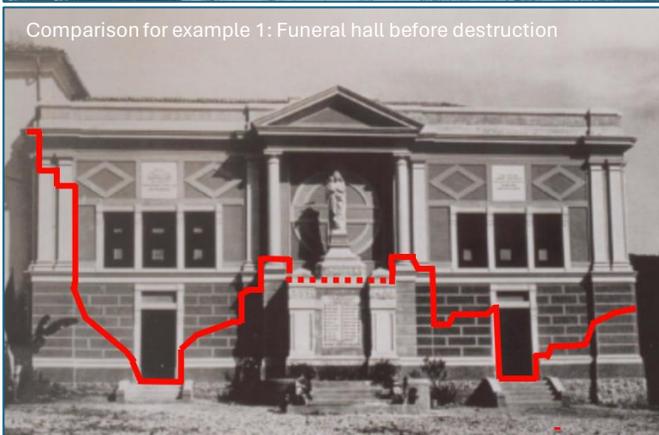
IF5

Many houses were severely damaged, a number of buildings was totally destroyed including the nave of a church and a neighboring funeral hall.

Example 1: Selva del Montello, funeral hall next to church



Comparison for example 1: Funeral hall before destruction



Example 2: unknown place



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Example 1:

The most prominent damage was found next to the severely damaged church of Selva del Montello. While for the church the assumption of a problematic geometry of the collapsed nave led to an IF4 rating (BS E, DoD 1B), this does not hold for the neighboring funeral hall ("La Sala Votiva") that has been completely destroyed. A photo from the remaining "interior" part (not shown) revealed a wall thickness of 40 – 80 cm (BS E or F, depending on "weak" or "strong" quality of mortar and bricks, which is unknown). With nearly total destruction (DoD 2), both options for BS lead to IF5.

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

IF-Scale sturdiness class: E or F

IF-Scale Degree of Damage (DoD): 2

(Near complete destruction, more than 2/3)

Result for sturdiness class E: IF5

Result for sturdiness class F: IF5

Example 2:

The exact dimensions of the building before destruction are unknown in this case. We estimate the width of the load-bearing walls to be around 40 cm by comparison with closeby persons. BS E is a middle choice between BS D (wall thickness less than 40 cm and weak quality) and BS F (wall thickness larger than 40 cm and strong quality of bricks and mortar) estimates. The degree of damage is clearly larger than 2/3, i.e. falls into DoD 2.

DI: BS E

DoD: 2

IF-Scale result: IF5

Number of analyzed historical damage photos: 27

Additional information analyzed: 6 pieces of written damage accounts.

Examples for sources of uncertainty for the ratings: Unknown brick and mortar quality, difficulties to estimate the wall thickness in some of the analysed cases, unknown effect of clean-up works.

The International Fujita Scale (IF-Scale) documentation is available here:

<https://www.essl.org/cms/research-projects/international-fujita-scale/>

Last reviewed by ESWD quality control on 17 May 2024.

European Severe Weather Database

The ESWD is a dynamic database.

Always check for data updates: www.eswd.eu

European Severe
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