#### **Tornado Rating Document**

# Weseke (Nordrhein-Westfalen) Germany 25 MAY 2021

Date: 25 MAY 2021

Time: 1505 CEST / 1305 UTC

**Country: Germany** 

State: Nordrhein-Westfalen

Place: Weseke

Path Length: 2.5 km (known)
Path Width: 60 m avg. / 90 m max.
Starting Point: 51.912N 6.841E

Altitude: 55 m osl

**Ending Point: 51.911N 6.879E (known)** 

Altitude: 56 m osl Movement: W-E Surface: Land

Surface Details: Farmland, Houses, Gardens, Trees

**Intensity Rating: F1 / F1T3** 

Intensity Rating based on Tornado and Wind Damage Assessment Guide for IF-Scale, ESSL and based on Wooden Plants: A New Damage Indicator / Degree of Damage Matrix (Hubrig, 2015). Damage mapping: Hendrik Sass. Photo matirial: Hanne Bushuven, Feuerwehr Borken, Westdeutscher Rundfunk (WDR), Annette Trzeciok and Storm\_hunter\_nrw.

Rating operator: Thilo Kühne (ESSL)

#### **BUILDINGS / MAN-MADE STURCUTRES:**

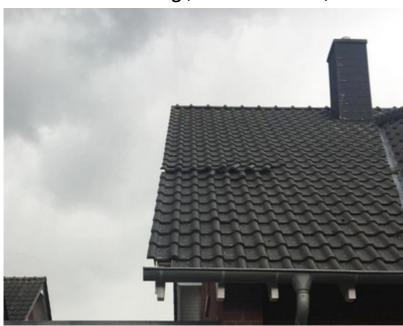
**01 Building** (51.9119N 6.8531E)



Some ceramik slates blown away on the west side of the building. Ratio <20%. DI Roofs: DoD1 (isolated tiles <20%) results in IF0+ / F0T1.

**Result: F0T1** 

## **02 Residential Building** (51.9121N 6.8547E)



A single row of ceramik slates was lifted, but wind failed to blow it away. DI Roofs: not defined. If DoD1 with ratio of <20% results in IF0+, than damage at building 02 results in IF0 / F0. (Proposal for DoD0 needed)

## **03 Masonry Wall** (51.9120N 6.8576E)



Wall collapsed. Single row brick structure. Failure point unknown.

DI MW: DoD1: Collapse: Not defined.

Result: None

## **04 Shed** (51.9119N 6.8575E)



Roof cover partly lifted, but not ripped-off and thrown. According to photo material, loss ratio may reached >20% at a rough estimate.

DI Roofs: DoD2: IF1

## **05 Residential Building** (51.9119N 6.8579E)



Some single ceramik slates blown away and some others lifted, but not thrown. Loss ratio <20%. DI Roofs: DoD1: IF0+ / F0T1.

**Result: F0T1** 

## **06 Residential Building** (51.9119N 6.8628E)



Large parts of slates blown off on the west side of the building. Loss ratio 40-50%. DI Roofs: DoD2 (20-50%) results in IF1 / F1. It is not clear whether one can expect a high-end F1 rating here or not. Damage cannot be estimated with additional T-Scale.

#### **07 Residential Building** (51.9118N 6.8631E)

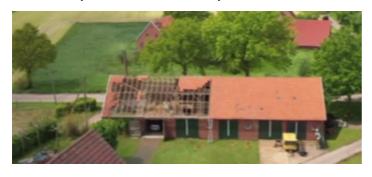


Some parts of slates blown off on the west side of the building. Damage is limited to the upper section of the roof. Loss ratio about 20-25%.

DI Roofs: DoD2 (20-50%): IF1 / F1.

**Result: F1** 

#### **08 Barn** (51.9118N 6.8775E)



Large parts of roof cover (ceramik slates) lifted. Loss ratio: 40%.

DI Roofs: DoD2 (20-50%): IF1

**Result: F1** 

#### **09** Garden building / weak outbuilding (51.9119N 6.8655E)

TV reported a garden building (wood frames, weak structure) which was lifted and thrown into southern direction onto walls of a building. The weak garden house was fully destroyed.

Failure Point: Sturdiness Class A (weak outbuilding), wall quality: wood, single row, rather thin. DoD4 (blown down) results in IF1 / F1.

#### **VEGETATION:**

Note: Only rating strongest damage which has been reported.



Trunk snapped, parts of large branched and tree crown snapped and thrown. The trunk itself was not thrown. Stability parameters unknown; using average parameters: DI 3 (Other Hardwood): DI Sub c : Upper F1.

Result: F1T3