

Disclaimer

Prototype DOP (Digital Orthophoto) automatic flood processing chain

The current DOP flood service is still a prototype and was created in an operational framework. The information presented here was automatically detected and automatically post-processed. Missing flooded areas were manually added. As flood damaged are considered:

- Rivers and riversides
- Debris inside/near the rivers
- Debris in backyards and in pavements
- Flooded areas near/around buildings
- Flooded areas in fields
- Flooded sport fields
- Dry clay on streets
- Dry clay on cars
- Flooded streets
- Trees on railways near the rivers with missing rail and sleepers
- Broken bridges
- Damaged roofs
- Roofs floating on the rivers

After the automatic detection, the data was buffered and, in its borders, some intact roads, intact railways and intact trees in the riverside may be included.

The following data used for this service was:

- DOP 10 cm post-disaster imagery from 16th July 2021
- DOP 15 cm pre-disaster imagery from June 2021

Data sources copyright information

Post-disaster imagery: ©DLR 2021

Pre-disaster imagery: ©BKG 2021

Reference

- Schwendemann, G. M., Schneibel, Anne (2021) "Flood damage detection as of July 16th 2021 by means of Manual editing and Artificial Intelligence (Deep learning) approach within the ESRI framework ", UN-SPIDER Bonn International Virtual Conference Space-based Solutions for Disaster Management in Africa: Networks and Information Technologies in times of crisis, 16 -18 November 2021.

- Schwendemann, G. M. (2021) "Detección automática de inundaciones en Julio 2021 en Alemania: una comparación entre manual digitalización y la ayuda de la Inteligencia Artificial aplicando la arquitectura de red neuronal del método Deep learning en ESRI ". UN-SPIDER Reunión regional virtual de expertos de ONU-SPIDER para América Latina 23 - 26 November 2021.

Citation

When disseminating data/layers of the DOP- flood service in e.g. presentations or own map products, please cite the source as follows: © DLR/ZKI 2021

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