Geophysical Research Abstracts Vol. 17, EGU2015-12934, 2015 EGU General Assembly 2015 © Author(s) 2015. CC Attribution 3.0 License.



Analysis of Severe Weather Events by Integration of Civil Protection Operation Data

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In Germany, winter storms belong to those natural hazards responsible for the largest damages (GDV 2014). This is a huge challenge for the civil protection, especially in metropolitan areas like Berlin. Nowadays, large-scale storm events are generally well predictable, but detailed forecasts on urban district or even street level are still out of range. Fire brigades, as major stakeholder covering severe weather consequences, operate on this small scale and in the whole area due to their juris-diction.

For forensic investigation of disasters this presentation offers an additional approach by using the documentation of fire brigade operations as a new data source. Hazard dimensions and conse-quences of severe weather events are reconstructed via GIS-based analyses of these operations. Local case studies of recent storms are used as a comparison and as an additional information to three WMO weather stations in Berlin. Thus, hot spots of these selected events can be identified by operation site accumulations. Further indicators for Berlin are added to detect aspects that de-termine vulnerabilities. The conclusion discusses the potential of this approach as well as possible benefits of integration into warning systems.