

Independent Evaluation of SCALGO Flash Flood Mapping



At the recent Florida Floodplain Managers Association Annual Conference, USA, the engineering and environmental sciences consulting firm Jones Edmunds & Associates presented an evaluation of the SCALGO Flash Flood Mapping product. Using a detailed terrain model, SCALGO Flash Flood Mapping can be used to rapidly assess flood risk during extreme rain events on a local, regional or even national scale.

Jones Edmunds compared SCALGO Flash Flood Mapping with the results of a recently completed Jones Edmunds flood study in Marion County, Florida, based on an advanced dynamic model (ICPR) used by the Florida authorities and listed by Federal Emergency Management Agency (FEMA) as a nationally accepted hydraulic model. They found that despite a cost of under 5% and a significantly reduced production time, the Flash Flood

Mapping results were close to the results of the advanced modelling and the same time significantly more detailed. Another main conclusion was that SCALGO Flash Flood Mapping is a very cost efficient way of screening large areas for high flood-risk areas where very detailed dynamic modelling is justified.

SCALGO Flash Flood Mapping show how much rain has to fall during an extreme rain event before any given cell of a detailed (Lidar based) raster terrain model is below water. Consequently, the mapping can be easily used to compute what part of each depression is below water after a given amount of rain, and thus effectively shows how water collects in depressions for all possible amounts of rain. The SCALGO Flash Flood Mapping product is being offered as a computation service. Based on the service and its national Lidar-based terrain model, the major Danish engineering, environmental science and economics consulting company COWI has already successfully launched a new [flash flood map product](#) in Denmark, which is being used by several local governments as well as one of the five regional governments in Denmark (covering approximately 13,000 km²).