

One of these tools which have proven to be very helpful during hurricane situations is the Hurricane Surge Atlas. The storm scenarios from the numerical computations have been chosen as its basis. These results have been stored in a large GIS database and a visualization tool has been built to quickly extract storms from the database which resemble the forecasted storm. For different storms, it turns out that the Hurricane Surge Atlas provides equal or even better results than the standard forecasting tool for surge levels. One possible reason for this is that the resolution of the offline computations is much higher than the computations carried out during a hurricane situation. Another advantage of the Hurricane Atlas is that it enables the end-user a tool to quickly assess changes in weather forecasts (e.g. strengthening of the storm, or changes in storm track). The potential of this Atlas concept is now being evaluated for other areas around the world and also for other purposes such as impacts of climate change.