

# CUAHSI and the National Flood Interoperability Experiment

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**Abstract:** The academic community of the United States is collaborating with the US National Weather Service in a National Flood Interoperability Experiment (NFIE) to help formulate a National Water Model to be implemented at a new National Water Center established on the Tuscaloosa campus of the University of Alabama. The activities of the academic community are coordinated through the Consortium of Universities for the Advancement of Hydrologic Science, Inc (CUAHSI), and culminated in a 7-week Summer Institute held in June-July 2015, in which 44 graduate students from 19 universities gathered the National Water Center to work this experiment. It was shown that it is feasible to compute 15-hour ahead flow forecasts for 2.7 million stream and river reaches covering the continental United States in 10 minutes at the Texas Advanced Computing Center, and this computation was repeated hourly during the period of the 2015 Summer Institute. The National Weather Service is implementing a first operational version of the National Water Model by May 2016 at the National Water Center, and a further Summer Institute will be held in June-July 2016 to continue this research to operations collaboration between the academic community and the National Weather Service. This presentation will reflect on the experience of conducting this large scale experiment in scientific collaboration between academia and the federal water agencies of the United States.

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