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Community Hazard Assessment and Mitigation Planning System Assessed to Help Mitigate Disasters



Homeland Security

Science and Technology

PROPERTY DAMAGES FROM FLOODING AVERAGE \$7.9 BILLION ANNUALLY

According to the National Weather Service, based on a 30-year average, more than 80 flood fatalities occur annually. Most of these deaths could have been prevented—possibly through a combination of earlier and better warnings and outreach campaigns to increase public awareness of the full risk of floods.

S&T SUPPORTS HAZARD ASSESSMENT, MITIGATION PLANNING AND PROJECT MANAGEMENT

The Department of Homeland Security (DHS) Science and Technology Directorate (S&T) strives to better prepare for these disasters. DHS S&T's First Responders & Detection Office is creating a National Flood Decision Support Toolbox as part of the Flood Apex Program, with a goal to save lives, decrease uninsured losses, and reduce property damage. This will be achieved through increased access to community, regional, and national data and information sources; analytical tools; and other resources that may help everyone make better flood resilience decisions.

A possible solution to support flood preparation is the Community Hazard Assessment and Mitigation Planning System (CHAMPS). First developed by the Commonwealth of Kentucky, CHAMPS is offered as a free resource to enhance disaster management efforts based on the concept of understanding and then mitigating risk to reduce loss of life and property. CHAMPS allows users to build community profiles, conduct assessments, develop plans, seek funding, and manage projects. When used in concert, these individual modules could build more resilient communities by enhancing communication among stakeholders. S&T is evaluating whether CHAMPS can support other states and localities. CHAMPS has been used in exercises like the New Orleans Flood Experiment in January 2017.

This software provides responders with the flexibility, skill sets, and tools necessary to plan, manage, coordinate,

and communicate critical information. CHAMPS can translate science into actions that reduce risk exposure in high-risk communities and could ultimately be transitioned to a partner to assist federal, state, local, tribal, and territorial users in making investment decisions related to floods.



EVALUATING CHAMPS FOR SCALABILITY

S&T is working with the Central United States Earthquake Consortium to develop nationally deployable decision support tools that enhance the data available to state and local emergency managers to allocate resources and mitigate hazards. CHAMPS could provide decision support tools to help communities and other stakeholders maximize use of mitigation resources and effectively assess alternatives to minimize flood risk. CHAMPS is being evaluated as a practical model for improving pre- and post-disaster investment decisions. CHAMPS is currently being evaluated to make it more user-friendly and scalable for communities outside of Kentucky.

PARTNERS

- Kentucky Emergency Management, Frankfort, Kentucky
- G&H International, Washington, D.C.
- Central United States Earthquake Consortium, Memphis, Tennessee

