



The Kentucky Critical Infrastructure Protection Program

The Kentucky Critical Infrastructure Protection Program (KCIP) contributes to expanding the inventory of technological assets that the supports the efficient, effective pursuit of homeland security strategies. The program is based in Kentucky but focuses on producing critical infrastructure protection solutions that have national application in response to specific requirements defined by DHS and operational requirements articulated by endusers. KCIP also emphasizes transitioning-to-use the products of its research and development projects, moving the research results from the laboratory into practical use.

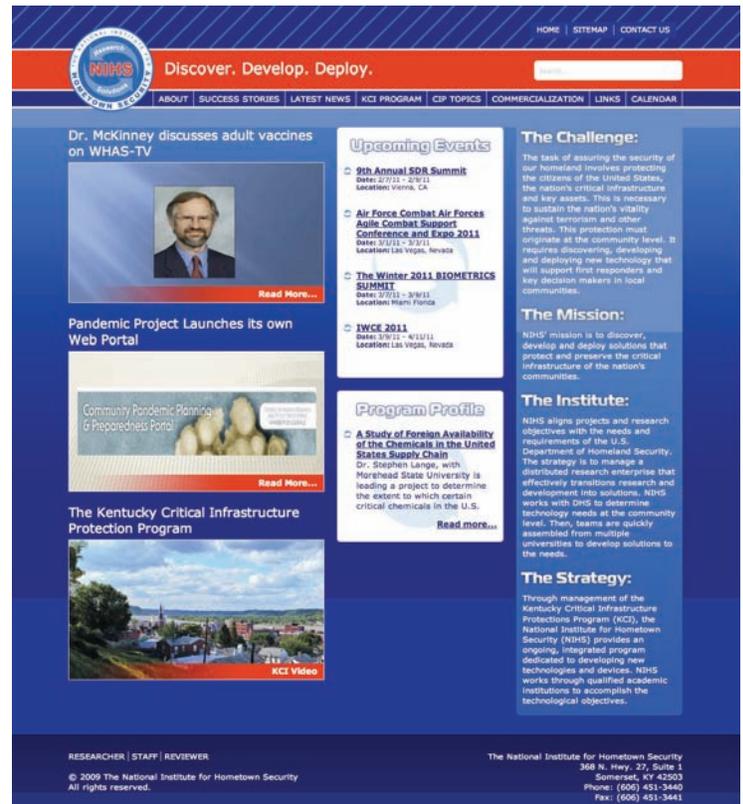
The Challenge: The task of assuring the security of our homeland involves protecting the citizens of the United States, the nation’s critical infrastructure, and key assets. This protection is necessary to sustain the nation’s vitality against terrorism and other threats. It must originate at the community level. It requires discovering, developing, and deploying new technologies that will support first responders and key decision makers in local communities.

The Mission: The mission of the National Institute for Hometown Security (NIHS) is to discover, develop, and deploy solutions that protect and preserve the critical infrastructure of the nation’s communities.

The Institute: NIHS aligns projects and research objectives with the needs and requirements of the U.S. Department of Homeland Security. The strategy is to manage a distributed research enterprise that effectively transitions research and development into solutions. NIHS works with DHS to determine technology needs at the community level. Then, teams are quickly assembled from multiple universities to develop solutions to these needs.

The Strategy: Through management of the Kentucky

Critical Infrastructure Protection Program (KCI), NIHS provides an ongoing, integrated program dedicated to developing new technologies and devices. NIHS works through qualified academic institutions to accomplish the technological objectives.

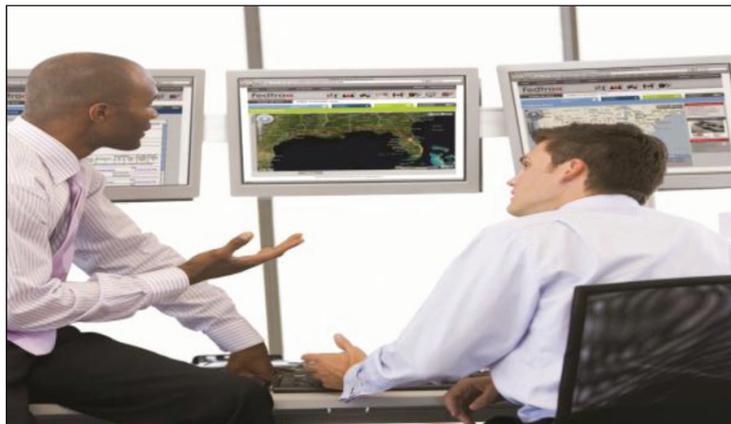


Discover. Develop. Deploy.

Featured Projects:

North American Transportation Center

Doug Kreis, with the Kentucky Transportation Center (KTC) of the University of Kentucky heads a team that developed sophisticated software and integrated it with “smart truck” technology to produce a prototype truck tracking system that will enhance hazmat shipment security. The Fedtrack software will be the backbone of the tracking system. Researchers have also developed operational components that integrate reporting and shipping information with the tracking capability.



Highway Bridge Standoff Measurement System

Dr. John Keilkopf with the University of Louisville is advancing the science significantly by allowing bridge inspectors to be able to measure instantly structural resonant vibration frequencies of any line-of-sight joint, plate, truss, or member from a remote distance. This method is elegantly simple to implement and is comparable to a surveyor setting up a transit at a distance, and aiming it at a critical point on the structure or member of interest, and measuring its vibration spectrum within seconds. To increase accuracy and repeatability, this measurement may be made over a long time interval and associated with specific loading events, such as high winds; the passage of passenger vehicles and trucks of various weights; or rail cars.



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