



IATAC Success Story

Corps of Engineers Flood Mitigation Efforts

<http://iac.dtic.mil/iatac>

Customer:	U.S. Army Corps of Engineers (USACE), Cold Regions Research and Engineering Laboratory (CRREL)
Challenge:	In the wake of significant flooding caused by Hurricane Katrina, USACE faced the challenge of improving the national levee safety program. USACE recognized it was imperative to identify the risk of the levee infrastructure within its care. Accurate and timely analysis required developing a web-service based system that consolidated data from the National Levee Database (NLD), CorpsMap, the Levee Screening Tool (LST), and National Weather Service precipitation forecasts.
Approach:	IATAC determined that USACE needed a trusted, secure, and portable suite of tools to provide engineers with the necessary information to perform risk analysis on the nationwide levee system. IATAC worked closely with subject matter experts from USACE to collect, analyze, and document the Information Assurance (IA) requirements needed to secure the web-service based system. To achieve these requirements, IATAC prepared compliant system architectures to focus prototyping and research and development efforts. IATAC established test plans, documented and analyzed prototype test results. IATAC developed recommendations for the secure integration of systems using geospatial web-services to centralize reporting.
Value:	USACE levee information has been consolidated into the NLD data warehouse. The NLD data warehouse provides federal agencies and emergency management groups direct access to the most up-to-date information. The ability to forecast when, where, and how much flooding may occur enables more comprehensive analysis, proactive planning, and situational awareness during emergency flood fighting and mitigation efforts. As a result of the portfolio integration, USACE will save approximately \$2.5 million per year in redundant manual engineer analyses that can be redirected to other critical flood risk reduction and mitigation tasks.

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