Web-enabled Visualization and Access of Value-added Disaster Products

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Project Summary
This CDI-funded project will support enhanced search, access, and visualization of disaster-related products and images that are provided to USGS by contributors for sharing across the response community during an emergency event. Contributed products are already hosted and delivered via the existing USGS Hazards Data Distribution System (HDDS), but the products are not easy to visualize or access.

The project will support expanded ingest capabilities for HDDS, allowing contributed images and map products to be more easily shared, discovered, visualized, and accessed by the user community.

Project Overview
The project will leverage the existing HDDS ingest, storage, and delivery systems to support new capabilities for map, vector, and satellite product ingest and display.

HDDS Operational Flow

Benefits of Enhanced HDDS Ingest
The enhanced HDDS ingest will allow user queries of contributed products based on geographic coordinates, agency source, date, and other metadata features. The ingest process will also support visual display and geographic location of the products within an interactive map-based interface.

Example Products

Non-ingested Data Access:
Example screenshot showing the HDDS “Ad Hoc” access area.

Ingested Data Access:
Example screenshot showing the HDDS search results.

HDDS Data Distribution System (HDDS)
The HDDS is a public USGS web portal that provides a consolidated point-of-entry and distribution system for remotely sensed imagery and other geospatial datasets related to emergency response. When disasters occur, this system provides a critical source of satellite and aerial imagery for the emergency response community.

The HDDS allows rapid selection, preview, and download of relevant pre- and post-event images. The system has supported hundreds of emergency events since its inception in 2010.

HDDS Contributors
The imagery and datasets on HDDS include imagery collected by USGS, as well as contributed datasets from many other agencies and collaborators. Contributing agencies include NASA, NOAA, FEMA, DHS, NGA, National Guard, Civil Air Patrol (CAP), state agencies, and others.

HDDS Users
The HDDS-hosted imagery is accessed by end users from all levels of government (Federal, State, local, tribal, and international) as well as many other organizations and communities engaged in emergency event support.

More Information
HDDS: http://hddsexplorer.usgs.gov/