

## [Evolving Data Products for Community Resilience and Disaster Applications II](#) [1]

Submitted by kmoe on Tue, 2015-04-14 16:46 Tuesday, July 14, 2015 - 15:30 to 17:00

**Event:** [Summer Meeting 2015](#) [2]

**Session Type:** [Breakout](#) [3]

**Expertise Level:** [Beginner](#) [4]

**Collaboration Area:** [Decisions](#) [5]

### **Abstract/Agenda:**

The Disaster Life Cycle Cluster coordinates efforts among data providers, managers and developers of disaster response systems and tools, and end-user communities within ESIP. We developed a working definition of the disaster life cycle phases. One cluster goal is to work with user communities to identify the information model and observations/outputs needed to enhance their decision-making.

This session will explore use cases to better understand disaster and risk management user needs and how to more effectively deliver remote sensing products to meet those needs. The implications for data systems, such as the information model and needed outputs will be discussed.

### **Speakers:**

Greg Yetman/CIESIN - Improving earthquake risk assessments for the reinsurance industry using remote sensing and socioeconomic data

TBD/UAH - Nepal earthquake experience with SERVIR collaborators on pre-post event imagery involving NASA SPoRT

Ruth Duerr/UC Boulder - CCube concept for Disasters Data Discovery (based on EarthCube proposal for use of standards and web search strategies)

### **Discussion Topics:**

Discuss and identify best practices from disaster events regarding data product discovery, delivery, and utility.

### **Notes:**

\* This session will focus on updating what we've done with the testbed and in particular on the California Capstone project and how that ties in with the testbed.

### **Maggi Glasscoe's presentation:**

\* Partnerships with the state of California: Earthquake Clearinghouse and California Geological Survey

\* Focus on common operational data that can be shared (xchange core and arcgis).

- \* ShakeOut scenario exercise: M7.8 earthquake on southern San Andreas fault.
- \* The California Earthquake Clearinghouse is an organization that facilitates field investigations by scientists with the goal of minimizing the duplication of efforts.
- \* Information sharing between xchange core and ArcGIS.
- \* Successful sharing between multiple state, federal, and local organizations through xchangeCore connected applications.
- \* One data product example is the incidents list (shown in the slides)
- \* E-DECIDER damage and loss estimation products generated.
- \* READI group does rapid GPS based magnitude and tsunami information.
- \* Data can also be displayed in Google Earth.
- \* Being able to visualize data and a variety of platforms is a priority since not all organizations/agencies use the same platform.
- \* The benefits to this type of technology are many.
- \* Allowed organizations to use the specialized tools and technologies that best support their roles and responsibilities in responding to a disaster (any disaster, not just earthquakes).
- \* Data experts can quickly and easily coordinate.
- \* Q: Where do your data sources come from? Can other people contribute?
- \* A: My project produces the bulk of the data but external contributions are welcome. Any submitted data will be vetted.
- \* Q: Is the data ever too specialized?
- \* A: Yes, and this can be fixed through user engagement and through developing data products that bridge the gaps. Emergency responders can't usually use raw scientific data products, so we build custom data products based on stakeholder needs.

## **Ken's presentation**

- \* Event-driven data delivery (ED3)
- \* NSF Earthcube effort called CHORDS (Cloud Hosted Real-time Data Services for the Geosciences)
- \* ED3 facilitates planning for data needs and improves data preparedness while providing reusable framework components.
- \* Ideally this will be applicable to supporting any event type.
- \* User/application event-triggered subscriptions
- \* Capturing of event notifications/alerts/warnings
- \* This is, in part, based around the idea of Event Albums, which are virtual collections that collect all relevant information related to some specific event with links to relevant data sources. This container is portable to other applications.
- \* Interactive albums can provide tools and services for visualization and analysis.

\* Event albums can be collected into event libraries for later reference.

\* Example: if someone has subscribed to hurricane data of category 4 for some region, the system will listen for alerts that match that category and then generate a event album if such alerts are detected.

\* CHORDS focuses on how to disseminate data streams for community applications.

\* ED3 provides tools to activate pre-defined workflows in response to real-time events.

**Dave Jones Presentation:** (limited notes here, I got drawn into the presentation/discussion and lost track of the notes)

\* Built last year the ability to connect to one collaborative common operating picture.

**Attachments/Presentations:**  [ESIP-Federation-July-2015-Yetman.pdf](#) [6]

**Session Leads:**

**Name:** [Emily Law](#) [7]

**Organization(s):** [JPL](#) [8]

**Name:** [Karen Moe](#) [9]

**Organization(s):** [NASA ESTO](#) [10]

**Email:** [karen.moe@nasa.gov](mailto:karen.moe@nasa.gov) [11]

**Notes takers:**

**Name:** [Sean Barberie](#) [12]

**Organization(s):** [University of Alaska Fairbanks](#) [13]

**Email:** [srbarberie@alaska.edu](mailto:srbarberie@alaska.edu) [14]

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[11] <mailto:karen.moe@nasa.gov>

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[14] <mailto:srbarberie@alaska.edu>