

Introductions and Clearinghouse history (Marjorie Greene)

CalEMA (Diane Vaughn):

- Designing a foundational GIS enterprise (working acronym “SABER”): goal is to create a system that can retrieve and disseminate information in real-time
  - Integrates information from crowd-sourcing, “recognized” organizations (USGS, EERI, etc.), and emergency personnel in one place
  - For high-level CA policy/decision makers during an emergency (homeland security/law enforcement and natural disasters constitute “emergency”)
  - Very large scale (state-wide)
  - Organizations that are providing info also able to access this system to retrieve information from others

CGS (Chuck Real)

- Overview of what worked/what didn’t in Baja California earthquake response:
  - Laptops, GPS, QGIS (w/ plug-in to allow uploading to Google Earth)
  - Internet and cell service poor (used Sprint aircards) – had to complete uploading/interactive Google earth things at end of evening, back in hotel
    - Relied primarily on pre-loaded maps/etc. in laptop

SCES (Mike Oskin and (on phone) Ken Hudnut)

- Earthquake geosciences: goal is to understand time-sensitive geoscience phenomena associated with an earthquake – scientist-oriented
- Source of information and comments immediately after an event (24-48 hrs)
  - Upload/download attachments, view comments
    - **Baja California thread:** <http://response.scec.org/node/273>
  - Used iridium phones in Baja – still not great in remote regions (while in field mapping surface fault rupture)

USGS (Luke Blair)

- Overview of GIS technology
  - ESRI Arcpad
  - Webform for a PDA for use in field – explored as a possibility, concluded not feasible
  - Google Earth
    - Baja CA example
      - Recommend at least one dedicated person to synthesize, organize, and compile data for GIS/Google Earth viewing during an event
      - Need a uniform, simple format for data submission (date, location, etc.)
- NOTE: Google Earth files have potential to be a poor method of archiving

- If poorly written, Google earth .kml files may yield data that cannot be transferred to GIS – which has serious ramifications for long-term storage.

#### CSSC & SEAOc (Fred Turner)

- As a structural engineer, sees Google “my maps” as sufficient
  - Eureka example of data collection/mapping
    - Locate unreinforced masonry buildings, retrofits, recording stations, etc.
    - Generated a Google Document for each site

#### GEER (Rob Kayen)

- Overview of GEER data analysis and recording practices
- Highlighted deliverables from:
  - L’Aquila Italy earthquake
  - Japan earthquake (earthquake spectra)

#### EERI (Gabe Mulford and Marjorie Greene)

- Clearinghouse website
  - Can post photos on Google interface
    - Simple, designed for small sets of photos
- Image-CAT (GEO CAN)
  - Crowd-sourcing to identify severely damaged/collapsed homes (Haiti example)
  - Pictometry (oblique aerial views)
    - Overcomes issue of direct overhead perspective causing difficulty assessing collapse

#### FEMA (Scott McAfee)

- Overview of FEMA
  - Note that life safety mobilizes FEMA’s resources
    - May be limited response possibilities for post-event imagery, etc. due to this for a small to medium earthquake
    - Department of Homeland Security (DHS) interface
    - Link to Google earth layers/information: <http://www.fema.gov/help/rss.shtm>

Discussion and Summary: The Clearinghouse would function in 4 main steps (chronological from start of event):

- Information dissemination: SCEC model (place to upload files with minimum effort)
  - Multiple disciplines (or silos)
  - Time sensitive
  - Blog format - place provide upload/download of files and make comments
- Compiling (at night, organization and find gaps; make information available to all)

- Synthesizing data and coordinating between disciplines
- Package information so consumable to essentially any person
  - Maybe a .kml with a few default layers and multiple optional layers

Future Work: Reconvene smaller group (USGS, CalEMA, EERI) of 4 or 5 to work out details of above approach.