

# Discussion Draft

## Meeting Minutes of the Subcommittee on Disaster Reduction

09 October 2008, 10:00 a.m. to 12:00 p.m., Yates Federal Building (USFS) 2<sup>nd</sup> Floor Training Room

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Italics indicate absent members. "T" indicate members participating via teleconference.

### Officers

David Applegate (USGS), Chair  
Margaret Davidson (NOAA), Vice-Chair  
Dennis Wenger (NSF), Vice-Chair

### NSTC Liaison

Jonathan Kolak (OSTP)

### Working Group Chairs

#### Earth Observations Working Group

Steve Ambrose (NASA), Co-Chair  
*Tim Battista (NOAA), Co-Chair*  
*Bruce Quirk (USGS), Co-Chair*

#### Infrastructure Task Group

*Joy Pauschke (NSF), Chair*

#### Resource Impacts Task Group

Susan Conard (USFS), Chair

### Designated Representatives

**BLM** *Edwin Roberson*

Ronald Huntsinger

**CDC** *Mark Keim*

**DHS** *Bruce Davis*

**DHS/FEMA** *Mike Buckley*

**DHS/USCG** *Steven Cohen*

**DOD** *Al Johnson*

**DOE** *Patricia Hoffman*

**DOT** *Sheila Duwadi*

*Cheryl McQueary*

*Tim Schmidt*

**EOP / OSTP**

**EDA** *Audrey Clarke*

**EPA** *Peter Jutro*

Stephen Clark

**FERC** *Berne Mosley*

**HUD** *David Engel*

**NASA** Steve Ambrose

**NGA** *Stephen Homeyer*

**NGB** Dave Wilmot

**NIH** Allen Dearry (T)

**NIST** William Grosshandler

*Jack Hayes*

**NOAA** Margaret Davidson

**NSF** *Joy Pauschke*

Dennis Wenger

**OPHS** Sven Rodenbeck (T)

**State** *Cari Enav*

*Fernando Echavarria*

**USACE** *Barbara J. Sotirin*

*Dimitra Syriopoulou*

**USAID** *Sezin Tokar*

**USDA** *Melissa Simpson*

**USFS** Susan Conard

**USGS** David Applegate

*Paula Gori*

### Other Attendees

**DHS/FEMA** Stephen Carruth

**DOT** W. Phillip Yen

**NOAA** Nell Codner

John Morrisroe

**NGA** Paul Lewis

**NGB** Jim Engstrand

**Secretariat** Emily Wallace

Ross Faith

### Agenda

- 10:00 Welcome and Introductions
- 10:05 Approval of September Meeting Minutes
- 10:10 Report from the Chair
- 10:20 Report from the Vice-Chairs
- 10:35 Report from the NSTC Liaison
- 10:45 Presentation: Performance of Transportation Infrastructure During the Wenchuan Earthquake
- 11:10 UN/ISDR Action Items
- 11:30 Review Satellite Resolution Response
- 11:55 Close and Next Actions

### Handouts

- Agenda
- September Meeting Minutes
- Presentation: Performance of Transportation Infrastructure During the Wenchuan Earthquake
- Satellite Imagery Use For Natural Disasters: Draft SDR Response

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## **I. Call to Order and Introductions**

Subcommittee on Disaster Reduction (SDR) Chair David Applegate (USGS) called the meeting to order at 10:02 a.m.

## **II. Approval of September Meeting Minutes**

Minutes from the September Meeting were approved with amendment from Paul Lewis (NGA) and Susan Conard (USFS).

## **III. Report from the Chair**

Subcommittee Chair David Applegate (USGS) began his report by thanking the Forest Service for hosting this month's meeting and noting the retirement of Susan Conard (USFS), who he described as a stalwart of the subcommittee. Applegate commented that he was especially grateful for all of Susan's contributions to Subcommittee's many documents over the years. Susan Conard (USFS) stated that Carlos Rodriguez-Franco (USFS) will be her replacement on the subcommittee.

David Applegate (USGS) then introduced Jon Kolak, who was recently detailed to the Office of Science and Technology Policy (OSTP) from the United States Geological Survey (USGS) and will be serving as National Science and Technology Council (NSTC) Liaison to SDR.

Applegate (USGS) next offered his express thanks to the Natural Hazards Caucus for hosting the Public Briefing on the Grand Challenges for Disaster Reduction, which took place on September 19<sup>th</sup> at the Rayburn House Office Building on Capitol Hill. Applegate noted that he kicked off the briefing with an introduction and a presentation on California's vulnerability to earthquakes. Excellent presentations were then given by Ken Graham, Meteorologist-in-Charge at the National Weather Service New Orleans/Baton Rouge Office, and Richard Lasko, Assistant Manager, Fire and Aviation Management, U.S. Forest Service.

Applegate (USGS) indicated that the 15<sup>th</sup> *Grand Challenges for Disaster Reduction Implementation Plan: Space Weather*, is currently waiting for clearance at the Office of Science and Technology Policy (OSTP). Applegate recognized that clearing the document before the transition would be a challenge, but hoped that it could be done and ready for printing by the time the *Grand Challenges for Disaster Reduction* goes to press for its 3<sup>rd</sup> printing during the beginning of the new Administration.

## **IV. Report from the Vice-Chairs**

Vice-Chair Margaret Davidson (NOAA) opened her remarks by discussing her recent visit to the Climate Change Science Program (CCSP), where she presented on the role and work of the SDR, framed the Grand Challenges for Disaster Reduction, explained the Implementation Plans, and covered two specific topics: the mitigation of 1) sea-level rise and coastal inundation, and 2) mud slides and debris flows. Davidson mentioned that her discussion with the CCSP also included a conversation about drought.

Margaret Davidson (NOAA) continued by suggesting that she, Dan Walker (OSTP), Jon Kolak (OSTP), and Emily Wallace (SDR Secretariat) get together to develop a two-pager highlighting the cross-threads between the SDR and CCSP to raise the profile of the SDR at OSTP for the new Administration.

Margaret Davidson (NOAA) also mentioned that several agencies are currently developing their own climate strategies, which, if harnessed by the SDR, would create additional efficiencies for the

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government. Toward this end, Davidson encouraged tapping into these efforts, including those of the CCSP, to maximize benefits in a fiscally constrained environment. To facilitate progress in these areas, the Secretariat will circulate: 1) the CCSP membership list; 2) information on where and when climate listening sessions will be taking place between mid-October and the end of December; and 3) the PowerPoint slides of Margaret Davidson's aforementioned presentation to the CCSP.

Vice Chair Dennis Wenger (NSF) noted that the Science Advisory Panel for the International Strategy for Disaster Reduction will meet at the end of October. Wenger stated that he will report on the panel's discussion at the November 4<sup>th</sup> meeting of the SDR.

David Applegate (USGS) then opened the floor to the new NSTC Liaison, Jon Kolak.

### **V. Report from the NSTC Liaison**

Jon Kolak (OSTP) introduced himself as the new NSTC Liaison to the SDR and explained that he had been detailed to OSTP from USGS. Mr. Kolak stated that he was happy to be serving in his new role and understood that he would have some very "big shoes" of the former NSTC Liaison, Dr. Gene Whitney, to fill. Jon briefly noted his technical background in environmental geo-chemistry. He responded to a question from Bill Grosshandler (NIST), explaining that he had been detailed to the SDR for one year with the possibility of extensions.

David Applegate (USGS) broached the subject of transition and asked Kolak how OSTP was readying itself for the change of administration. Jon Kolak (OSTP) explained that the OSTP is focusing on what deliverables are currently in the pipeline that could be cleared within the next couple of months; OSTP's highest priority is to clear these documents. Applegate (USGS) agreed that upcoming climate collaboration was important and could be prepositioned for the new administration.

The NSTC Liaison, Jon Kolak (OSTP), also explained that the SDR Secretariat is being encouraged to use—and post SDR documents to—the Max website, a collaborative work environment/portal hosted by the Office of Management and Budget (OMB), to assure continuity and accessibility to subcommittee documents during and after the transition. Kolak also noted that the full SDR may be directed to use the Max website in the future.

### **VI. Presentation: Performance of Transportation Infrastructure During the Wenchuan Earthquake on May 12, 2008**

David Applegate (USGS) introduced Dr. Phillip Yen, Program Manager of the Seismic Hazard Mitigation Program of the Office of Infrastructure R&D, Federal Highway Administration (FHWA), Department of Transportation (DOT).

Dr. Yen (DOT) began his presentation by thanking David Applegate and the Subcommittee on Disaster Reduction (SDR) for the opportunity to speak about the damage to China's transportation infrastructure caused by the Wenchuan Earthquake on May 12<sup>th</sup>, 2008.

Dr. Yen (DOT) has published many technical papers in the area of modal identification of bridge structures, non-destructive evaluation and testing, seismic design, shake-table tests of bridge columns, bridge vibration tests, and cable stress assessment of cable-stayed bridges.

During his PowerPoint presentation, Dr. Phillip Yen (DOT) commented on an array of photos showing failures in China's transportation infrastructure, particularly in bridges, that resulted from

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the earthquake. Dr. Yen offered several insights and observations, throughout his presentation, including:

- The fact that the New Madrid Fault, which threatens the large population base of St. Louis, is very similar to the Wenchuan Fault.
- A particular arch frame, bridge construction design, which failed in several instances during the Wenchuan Earthquake, is similar to a design commonly found throughout the United States.
- Evidence suggesting that bridges constructed parallel rather than perpendicular to fault lines better withstand earthquakes.
- That engineering and government communities should consider ways to improve bridge building processes, so that bridges under construction when an earthquake strikes will better withstand the event.
- In particular, curved spans of bridges fared quite poorly during the Wenchuan Earthquake and should be avoided in construction designs.

During a question and answer period following the presentation, Paul Lewis (NGA) asked if suspension bridges fare better in earthquakes.

Dr. Yen (DOT) affirmed that suspension bridges do tend to fare better, owing to their greater flexibility. Dr. Yen noted, however, that suspension bridges do cost more to build than other types.

Dennis Wegner (NSF) commented on the long time gap between the date of the earthquake and the date when Dr. Yen's team was finally allowed into China. Wegner asked if this delay affected Dr. Yen's research.

Dr. Phillip Yen (DOT) affirmed that the delay did affect his team's work since Chinese authorities had already started to demolish the failed structures in some instances, which limited data collection.

Dennis Wegner (NSF) noted that other organizations also sent teams to China, including the Earthquake Engineering Research Institute (EERI), based in Oakland, CA, and the Multidisciplinary Center for Earthquake Engineering Research (MCEER) at the University of Buffalo. Wegner asked Dr. Yen if there is much collaboration and information sharing among EERI, MCEER and his team.

Dr. Yen (DOT) indicated that information is being shared among the teams and that there will be two sessions held on the topic during the 14<sup>th</sup> World Conference on Earthquake Engineering, October 12-17<sup>th</sup>, Beijing, China.

Jon Kolak (OSTP) asked which Chinese organizations and agencies took the lead on reconnaissance, recovery and research efforts.

Dr. Yen (DOT) replied that the Ministry of Communications/Research Highway Institute and the China Earthquake Administration coordinated reconnaissance and research. Recovery efforts fell upon the individual province.

David Applegate (USGS) returned to a theme Dr. Yen had mentioned earlier in his presentation: the similar construction codes for U.S. and Chinese bridges. Applegate asked Dr. Yen if the reason for bridge failure was 1) poor code or 2) good code but poor construction.

Dr. Yen (DOT) noted that quality control problems are definitely an issue in China and certainly explain some of the failures.

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## VII. UN/ISDR Action Items

The Subcommittee Chair, David Applegate (USGS), noted that he sent out the United Nations International Strategy for Disaster Reduction (UN/ISDR) Early Warning Survey on September 11<sup>th</sup> and is getting a good response as well as qualified individuals to fill the ISDR Early Warning Response Team.

Applegate (USGS) also encouraged Subcommittee members to appraise and comment on the National Progress Review for the Hyogo Framework for Action, noting that it should be a living document on the SDR members-only website.

## VIII. Review Satellite Resolution Response

David Applegate (USGS) drew the members' attention to the handout entitled: *Satellite Imagery Use For Natural Disasters: Draft SDR Response*, and explained that this document was a product synthesized from conference calls with agency experts and discussion from the September 4<sup>th</sup> SDR Meeting. This response also builds on NOAA-requested guidance provided by the SDR in December 2005 that a waiver of the 24-hour delay conditions for commercial imagery during disaster events would provide significant opportunities to support emergency management authorities in planning their response to disasters. Applegate opened up the document for comment.

Emily Wallace (Secretariat) noted that a response is being requested of the SDR because the higher resolution satellite imagery in question will become commercially available within a matter of months.

Susan Conard (USFS) recommended that improved satellite imagery be emphasized as an important component of our disaster management "toolkit" in the response to NOAA.

## IX. Close and Next Actions

Bill Grosshandler offered to make a presentation to the Subcommittee on the collapse of World Trade Center 7 at an upcoming meeting.

## X. Adjournment

The meeting adjourned at 11:57 a.m.

## XI. Future Meetings

The SDR meets on the first or second Thursday of every month from 10 a.m. to 12 p.m. unless otherwise noted.

November 6, 2008	April 2, 2009	September 3, 2009
December 4, 2008	May 7, 2009	October 1, 2009
January 8, 2009	June 4, 2009	November 5, 2009
February 5, 2009	July 2, 2009	December 3, 2009
March 5, 2009	August 6, 2009	

## XII. Agenda Items and Other Communications with the Subcommittee

Please send proposed agenda items and any other items intended for distribution to the full Subcommittee to Emily Wallace ([ewallace@grs-solutions.com](mailto:ewallace@grs-solutions.com)).

## XIII. Contact Information SDR Leadership

David Applegate, Chair, 703-648-6714, [applegate@usgs.gov](mailto:applegate@usgs.gov)

Margaret Davidson, Vice Chair, 843-740-1220, [Margaret.davidson@noaa.gov](mailto:Margaret.davidson@noaa.gov)

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Dennis Wenger, Vice Chair, (703) 292-8606, dwenger@nsf.gov

## Secretariat

Emily Wallace, 703-560-7448, ewallace@grs-solutions.com

### XIV. Summary of May Actions

Action	Lead	By When
SDR financial support: Contact Dave ( <a href="mailto:aplegate@usgs.gov">aplegate@usgs.gov</a> ) if you would like a personalized support request letter to your agency.	SDR Members	Standing
Contact Emily ( <a href="mailto:ewallace@grs-solutions.com">ewallace@grs-solutions.com</a> ) to receive copies of the Grand Challenges for Disaster Reduction Implementation Plan packets or CD.	SDR Members	Standing
Let Emily or Dave know how you use the implementation plans, including when you link to the plans from your agency websites.	SDR Members	Standing
Send Emily or Dave additional distribution suggestions, including relevant contact information.	SDR Members	Standing
Let Emily know if you are interested in funding the National Research Council Study on Measuring Community Resiliency.	SDR Members	ASAP
Circulate Draft Satellite Resolution Response to SDR Members for comment.	Secretariat	October 14, 2008
Send comments on Draft Satellite Resolution Response to Emily ( <a href="mailto:ewallace@grs-solutions.com">ewallace@grs-solutions.com</a> ).	SDR Members	October 17, 2008
Circulate Climate Change Science Program membership list to SDR Members.	Secretariat	October 17, 2008
Circulate information on where and when climate listening sessions will be taking place between mid-October and the end of December to SDR Members.	Secretariat	October 17, 2008
Circulate the PowerPoint slides of Margaret Davidson's presentation at the CCSP to SDR Members.	Secretariat	October 17, 2008