

Meeting Minutes of the Subcommittee on Disaster Reduction Grand Challenges Offsite

28 October 2005, 9:00 a.m. to 3:30 p.m., White House Conference Center, Truman Room

Italics indicate absent members..

Officers

Helen Wood (NOAA), Chair
David Applegate (USGS), Vice-Chair

NSTC Liaison

Gene Whitney (OSTP)

Designated Representatives

CDC *Dan Sosin*

DHS *Bruce Davis*

DHS/FEMA *Mike Buckley*

DOD *Earnest Paylor*

DOE *Alex de Alvarez*

DOI *Larry Braun*

DOI / USGS David Applegate

DOT *K. T. Thirumalai*

EOP / OSTP Gene Whitney

EPA Peter Jutro

HUD *John Kennedy*

NASA *Steve Ambrose*

NGA *Monica Gaughan*

NGB *Peter M. Aylward*

Stephen Davis

NIST *Jim St. Pierre*

Noel Raufaste

NOAA Helen Wood

Margaret Davidson (T)

NSF *Dennis Wenger*

OPHS *John Babb*

Boris Lushniak

State Melba Crawford

USACE *Michael O'Connor*

USAID *Peter Morris*

USDA *Allen Dedrick*

USDA / USFS Susan Conard

Other Attendees

DHS/FEMA Fred Sharrocks

DOI / USGS Jim Devine

DOT Sheila Duwadi

EPA Steve Clark

NASA Shahid Habib

Craig Dobson

NSF Jacqueline Meszaros

NOAA Ralph Cantral

John Gaynor

Margaret McCalla

Nathalie Valette-Silver

Mark Welshinger

Secretariat Dori Akerman

Emily Wallace

Will Hottel

USACE Andy Bruzewicz

USDA Pai-Yei Whung

USGS Tim Cohn

Jim Devine

Peter Lyttle

Jim Quick

NAS Disasters Roundtable

Bill Hooke

Agenda

9:00 Welcome and Introductions
9:10 Introductions of Offsite Objectives and Expectations
9:20 Vision for the Subcommittee on Disaster Reduction
10:00 Next Big Disaster Scenarios – Geologic
10:30 Next Big Disaster Scenarios – Pacific Tsunami
10:55 Break
11:10 Next Big Disaster Scenarios – Hurricane
12:15 Lunch
1:15 Next Big Disaster Scenarios – Flood
1:35 Additional Grand Challenges Implementation Strategies
2:15 Outreach and Communications Plan
3:00 Wrap-up and Next Actions
3:15 Closing Remarks
3:30 Adjourn

Handouts

- Agenda
- SDR Charter
- Next Big Disaster Handout: Earthquake
- Earthquake Grand Challenges 4-Pager
- Landslide Grand Challenges 4-Pager
- Next Big Disaster Handout: Volcano
- Volcano Grand Challenges 4-Pager
- Next Big Disaster Handout: Cascadia Earthquake and Tsunami
- Tsunami Grand Challenges 4-Pager
- Next Big Disaster Handout: Hurricane, Galveston/Houston
- Next Big Disaster Handout: Hurricane, New York/New Jersey
- Hurricane Grand Challenges 4-Pager
- Coastal Inundation Grand Challenges 4-Pager
- Tornado Grand Challenges 4-Pager
- Winter Storm/Heat Wave Grand Challenges 4-Pager
- Wind Storm Grand Challenges 4-Pager
- Next Big Disaster Handout: Midwestern Flood
- Flood Grand Challenges 4-Pager
- Grand Challenges 4-Pager
- Grand Challenges 4-Pager
- Grand Challenges 4-Pager
- Grand Challenges 4-Pager
- Draft Outreach Plan

I. Welcome and Introductions

SDR Chair Helen Wood called the meeting to order at 9:00 a.m.

II. Introductions of Offsite Objectives and Expectations

Ms. Wood began by discussing the SDR Charter included in the meeting packets and reminded members that SDR's purpose is to make recommendations for Federal investments in science and technology for disaster reduction. The Offsite will focus on the four-page hazard-specific documents being developed as implementation plans following the Grand Challenges.

Dr. Gene Whitney reminded the members that the Next Big Disaster scenarios are the prism through which the group will discuss the four-page documents. This will ensure that the recommended actions are truly those actions that will reduce disasters to hazard events. He reminded members that the scenarios included in the meeting packets are supplementary materials and for internal use only. The scenarios will not be distributed to anyone outside the SDR.

III. Summary of Discussion

A. Vision for the Subcommittee on Disaster Reduction

After reviewing the SDR Charter and the draft FY2006 Annual Operating Plan, Dr. Whitney described the SDR's function within the National Science and Technology Council (NSTC). The main job of the Subcommittee is to advise the Administration - not the public or Congress - on issues of science and technology related to disaster reduction. Further, SDR members were reminded their work for the SDR is without agency affiliation. Dr. Whitney also asked members to keep in mind that most of the people within the Administration are not scientists, so it is the SDR's job to tell them what they need to do in terms they can understand.

Dr. Susan Conard recommended that slight changes be made to the vision statement of the Annual Operating Plan so that it reflects the fact that resilience includes preventing damage from hazards, not just quick recovery. Andy Bruscewiz agreed.

Ms. Wood suggested the Operating Plan include additional information about SDR engagement with other NSTC Committees and Subcommittees and the National Academy of Sciences Roundtables. The plan should also include additional information about the roles of SDR's Working Groups, Task Groups and ad-hoc groups.

B. Next Big Disaster Scenarios

Geologic

Dr. David Applegate led the discussion of geologic hazards and encouraged the group to help inform the content of the geologic hazard 4-pagers, which are due in December.

For geologic hazards there is often more than one catastrophic event because earthquakes, landslides and volcanoes usually have a cumulative effect. The discussion of earthquake scenarios included several different locations where they are likely to occur, with the most catastrophic impacts in urban areas (Los Angeles; Seattle, etc.). To supplement the discussion, Dr. Applegate distributed the newly-released pamphlet "Putting Down Roots."

Dr. Peter Lytle led the discussion of landslides and debris flows, noting that while landslides often receive less attention than other hazards, they are among the most deadly, claiming 30-50 lives a year in the U.S. and many more internationally. Landslides are a cross-cutting hazard, meaning they can be triggered by earthquakes, volcanoes, floods and debris from wildfires. A four-page document

about landslides will include a detailed discussion about long term planning for this hazard, and demonstrate the cascading effects.

Dr. Jim Quick led the discussion of volcano hazards, noting that there are 169 geologically active volcanoes in the United States, in several regions. Of particular concern are Mt. Shasta and numerous volcanoes in Hawaii. It is impossible to design around many of the hazards presented by volcanoes including lateral blasts and pyroclastic flows. Because major eruptions occur infrequently the threat they represent is easily forgotten, but they are among the most destructive of hazards, and the most difficult to mitigate against.

Tsunami

Dr. Jack Mezaros began the discussion of tsunamis with a presentation on the threat of a major tsunami occurring in the Cascadia region of the Pacific Northwest. The 700-mile subduction zone in this region has the potential to produce a magnitude 9.0 earthquake which could result in a massive tsunami striking the Pacific coast. Dr. Mezaros discussed the likely impacts of this disaster to the region, and its potential effects on the U.S. economy. Dr. Devine noted that the content for the tsunami four-page document was taken from the Tsunami Lessons Learned document and the National Tsunami Plan.

Meteorological Hazards

John Gaynor discussed the Next Big Disaster scenario for hurricanes: a Category 5 hurricane striking Galveston Texas and a Category 3 making landfall in New York City. In Galveston the hurricane would result in massive disruption to shipping lanes and severe damage to oil refineries and pumping stations in the Gulf Coast. In New York, large scale evacuation of the 20 million people in the greater metropolitan area would prove nearly impossible. In both cases the impacts would be felt by the entire nation.

Ralph Cantral presented the Coastal Inundation four-page document. While often strongly associated with hurricanes, coastal inundation also can be triggered by tsunamis, land subsidence and sea level rise. Coastal inundation is the largest category of “repeat loss” for both private and public insurance pools because more than fifty percent of the U.S. population lives within coastal watersheds. Coastal inundation is also strongly tied to a number of secondary hazards, particularly ecological and public health hazards.

John Gaynor also presented the Tornadoes and Severe Thunderstorms, Winter Storms and Heat Waves and Wind Storms four-page documents.

Flood

Dr. Tim Cohn discussed the Next Big Disaster scenario for a big Midwestern flood and the Flood four-page document. Unlike many other natural hazards, floods have received a great deal of attention from the Federal Government, but continue to cause widespread loss, as many people do not realize how great the risk is and are not insured against flood damage.

Sheila Duwadi from DOT mentioned that floods are still the leading cause of bridge failures. Floods also result in a number of secondary hazards including landslides and public health ecological hazards.

It was suggested that 100-year flood standards may not be the most effect method of flood forecasting. Europe uses 10,000-year standards.

Additional Grand Challenges Implementation Strategies

Dr. Susan Conard presented the Wildland Fire four-page document. She noted that the document incorporates both wildland and urban fires and perhaps the title should be changed to reflect this. Dr. Whitney suggested that the President's Healthy Forest Initiative be mentioned in the paper.

Dr. Pai-Yei Whung presented the Drought Implementation four-page document, which was the first of the four-page documents to be developed and is nearly complete. This document must reflect the current state of affairs for drought science, and reinforce the notion that the nation needs to move toward preparing for drought, not just recovering from it.

Lieutenant Colonel Stephen Davis led the discussion about industrial accidents. Unlike the other hazards discussed, industrial accidents are completely avoidable. Industrial accidents represent a gray area between disasters and intentional acts of war or terrorism. The title of this document will be changed to technological disasters (including large scale blackouts) and industrial accidents.

Nathalie Valette-Silver, who led the discussion of human and ecosystem health hazards, suggested that this type of hazard can be a primary and secondary hazard. Additionally, it can be caused by a variety of factors including climate change and invasive species. When writing this implementation plan it may be important to examine the work of other NSTC Subcommittees such as the Subcommittee on Toxics to make sure the SDR is not duplicating their work.

C. Outreach and Communications Plan

Ms. Wood drew the member's attention to the draft Outreach Plan for the Grand Challenges Companion Documents included in their meeting packets. The SDR will need to offer a briefing and manage document distribution to Dr. Marburger, the NSTC, House and Senate committees, key individuals in private industry, and all other interested audiences in order to make these documents relevant and effective. Key opportunities for further outreach include The National Academies Government, Industry and University Roundtable and the Hurricane Katrina event being held at the U.S. Chamber of Commerce on December 19-21. The SDR also should consider having a special forum to present these plans, or consider hosting a joint event with other NSTC Subcommittees.

IV. Next Actions

Next actions for the subcommittee to be discussed at the November 3rd SDR meeting include refinement of the Work Plan and Outreach Plan.

The four-page documents must be completed by:

Topic	Co-Chairs	By When
Drought	Pei-Yei Whung (USDA), (301) 504-4868, pai-yei.whung@nps.ars.usda.gov Jay Lawrimore (NOAA), (828) 271-4750, jay.lawrimore@noaa.gov	5:00 p.m. EST on Monday, November 7th
Coastal Inundation	Margaret Davidson (NOAA), (843) 740-1220, margaret.davidson@noaa.gov	5:00 p.m. EST on Monday, November 7th
Tsunami	Jim Devine (USGS), (703) 648-4423, jdevine@usgs.gov John Jones (NOAA), (301) 713-0711 x157, john.jones@noaa.gov	5:00 p.m. EST on Monday, November 7th
Wind Storm	John Gaynor (NOAA), (301) 713-0460 x117	5:00 p.m. EST on Monday, November 7th
Hurricane	John Gaynor (NOAA), (301) 713-0460 x117,	November 18

Topic	Co-Chairs	By When
	john.gaynor@noaa.gov	
Winter Storm and Heat Wave	John Gaynor (NOAA), (301) 713-0460 x117, john.gaynor@noaa.gov Steve Goodman (NASA), steve.goodman@msfc.nasa.gov	November 18
Tornadoes and Severe Thunderstorms	John Gaynor (NOAA), (301) 713-0460 x117, john.gaynor@noaa.gov	November 18
Wildland Fire	Susan Conard (USFS), (703) 605-5255, sconard@fs.fed.us Ruddy Mell (NIST), (301) 975-4797, william.mell@nist.gov	November 18
Earthquake	Dave Applegate (USGS), (703) 648-6714, applegate@usgs.gov Designee (NIST)	December 16
Flood	Dennis Wenger (NSF), (703) 292-7014, dwenger@nsf.gov Andy Bruzewicz (USACE), (603) 646 4372, Andrew.J.Bruzewicz@erdc.usace.army.mil	December 16
Human and Ecosystem Health Hazards	Nathalie Valette-Silver (NOAA), (301) 713-3020 x181, nathalie.valette-silver@noaa.gov Josephine Malilay (CDC), jmalilay@cdc.gov John Babb (DHHS), (240) 453-6101, jbabb@osophs.dhhs.gov	December 16
Industrial Accident (including urban fire)	Regan Murray (EPA), (513) 569-7031, murray.regan@epa.gov Stephen Davis (NGB), (703) 607-0011, stephen.davis@ngb.af.mil	December 16
Landslides and Debris Flow	Peter Lyttle (USGS), (703) 648-6943, plyttle@usgs.gov Bob Adler (NASA), (301) 614-6290, robert.f.adler@nasa.gov	December 16
Volcano	Jim Quick (USGS), (703) 648-6711, jquick@usgs.gov	December 16

V. Closing Remarks

Ms. Wood thanked all members and especially thanked Dr. Noel Raufaste for their efforts in developing the four-page documents and making this event a success. She reminded all members that it should be their continuing mission to work on the part of NSTC to remind the President what Federal agencies are doing to reduce disasters and what needs to be done.

VI. Adjournment

The meeting adjourned at 3:15 p.m. EDT.

VII. Contact Information SDR Leadership

Helen Wood, Chair, 301-713-1140, helen.wood@noaa.gov

David Applegate, Vice-Chair, 703-648-6715, applegate@usgs.gov

Secretariat

Dori Akerman, 703-560-7448, dori@grs-solutions.com