

# Discussion Draft

## Meeting Minutes of the Subcommittee on Disaster Reduction

3 September 2009, 10:00 a.m. to 12:00 p.m., Department of Commerce, Room 1412

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

### Officers

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

### NSTC Liaison

Jonathan Kolak (OSTP)

### Designated Representatives

**BLM** *Edwin Roberson*

*Ronald Huntsinger*

**CDC** *Mark Keim*

**DHS** Bruce Davis (T)

**DHS/FEMA** *Deborah Ingram*

**DHS/USCG** *Steven Cohen*

**DOD** *Al Johnson*

**DOE** *Patricia Hoffman*

**DOT** *Kelly Leone*

*Sheila Duwadi*

*Tim Schmidt*

**EOP/OSTP** Jonathan Kolak

**EDA** *Audrey Clarke*

**EPA** *Peter Jutro*

*Stephen Clark*

**FERC** *Berne Mosley*

**HUD** *David Engel*

**NASA** *Andrea Donnellan*

**NGA** *Stephen Homeyer*

**NGB** *Daniel Bochicchio*

**NIH** *Allen Dearry*

**NIST** *William Grosshandler*

*Jack Hayes*

**NOAA** *John Gaynor*

**NSF** Dennis Wenger

**OPHS** Sven Rodenbeck (T)

**State** *Cari Enav*

*Fernando Echavarria*

**USACE** *Barbara J. Sotirin*

*Dimitra Syriopoulou*

**USAID** *Sezin Tokar*

**USDA** TBD

**USFS** *Carlos Rodriguez-*

*Franco*

**USGS** David Applegate

Paula Gori (T)

### Other Attendees

**DHS/FEMA** Steve Carruth

Kerry Hoerth

**EPA** Brendan Doyle

**NASA** Craig Dobson

Michael Goodman

**NGA** Thomas Johnson

**NGB** Lisa Burg

**NOAA** Nell Codner

Maria Honeycutt

**Secretariat** Ross Faith

Emily Wallace

**State** Brian Lieke

**USFS** Mike Hilbruner

### Agenda

10:00 Welcome and Introductions

10:05 Approval of July Meeting Minutes

10:10 Report from the NSTC Liaison

10:20 Report from the Chair

10:50 Report from the Vice-Chairs

11:00 Presentation: National Preparedness Month

11:15 Presentation: NASA's Decadal Survey

Missions and Natural Disasters Program

11:55 Close and Next Actions

### Handouts

- Agenda
- July Meeting Minutes
- SDR COP-15 Side Event Proposals
- Disaster topic paper for GEO-VI Plenary
- Quadrennial Homeland Security Review Flyer

# Discussion Draft

## I. Call to Order and Introductions

Subcommittee on Disaster Reduction (SDR) Chair David Applegate (USGS) called the meeting to order at 10:04 a.m. and the participants introduced themselves.

## II. Approval of Meeting Minutes

The July Meeting Minutes were approved with no opposition or abstentions.

## III. Report from the NSTC Liaison

NSTC Liaison Jon Kolak (OSTP) began his report by thanking Maria Honeycutt (NOAA) for helping to resolve comments on the National Windstorm Impact Reduction Program (NWIRP) Biennial Report to Congress for Fiscal Years 2007-2008. The Office of Management and Budget (OMB) is currently reviewing the report. Kolak expected to convene Windstorm Hazards Reduction Program (WindHRP) Working Group for one final teleconference before the report is transmitted to Congress.

Kolak stated that the SDR will be asked to help inform the Federal approach to climate change adaptation; however, the coordinating structure for designing and implementing climate change adaptation strategies is still being discussed at fairly high levels. Kolak expected to have a clearer picture of the structure next month. In the meantime, he asked Members to consider how the SDR can most effectively contribute its expertise.

Applegate asked for volunteers to participate on an *ad hoc* SDR writing team that will put together a white paper outlining the role of disaster risk reduction in climate change adaptation strategies. The white paper will describe how the SDR can link the S&T priorities identified in the *Grand Challenges* to climate policy development. As such, the paper will essentially be a calling card for the SDR to climate policymakers.

The need for this linkage is well expressed in an excerpt from OSTP Director Holdren's testimony at a July 30th Senate Commerce, Science and Transportation Committee climate hearing. Speaking on climate adaptation research, he said: "Given the relationships between climate change and extreme events, the community of researchers, engineers and other experts who work on reducing risks from natural and human-caused disasters will have an important role to play in framing climate change adaptation strategies and in providing information to support decision-making during implementation."

The objective of the *ad hoc* writing team will be to frame what Holdren's quote means in both domestic and international contexts. The paper is expected to highlight linkages with weather, drought, wildfire, and the *Grand Challenges*, among others. Kolak noted that the paper is an opportunity to identify the U.S. Global Change Research Program (USGCRP) and the U.S. Group on Earth Observations (USGEO) as natural partners.

Those interested in volunteering for the white paper writing team should email the Secretariat ([rfaith@grs-solutions.com](mailto:rfaith@grs-solutions.com)) by Friday, September 25<sup>th</sup>.

Kolak stated that discussions were ongoing with respect to ocean policy and governance structure. A draft document on the subject is circulating for clearance by September 10<sup>th</sup>.

Kolak also stated that the National Science and Technology Council (NSTC) met after the July 2<sup>nd</sup> SDR meeting. The meeting marks the first time the Council has met in 15 years. More information on the NSTC, including membership, can be found at <http://www.ostp.gov/cs/nstc/about>.

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The inaugural meeting of the President's Council of Advisors on Science and Technology (PCAST) was held on August 6-7. During the meeting, PCAST discussed possible studies it might undertake. An archived webcast can be accessed through <http://www.tvworldwide.com/events/pcast/>.

As part of the Open Government Initiative, the Office of Science and Technology Policy (OSTP) will be setting up a blog. Ideas for blog topics are welcome and can be sent to Jon Kolak ([jkolak@ostp.eop.gov](mailto:jkolak@ostp.eop.gov)) or the Secretariat ([rfaith@grs-solutions.com](mailto:rfaith@grs-solutions.com)).

#### IV. Report from the Chair

Applegate reported the sad passing of Paul Silver, husband of long-time SDR Member Nathalie Valette-Silver and a tremendous contributor in the field of seismology, who on August 7<sup>th</sup> died in a car accident along with their daughter Celine, a budding marine biologist bound for NOAA. Donations to the Paul G. Silver Postdoctoral Fellowship in Seismology can be made at [http://www.ciw.edu/silver\\_fellowship](http://www.ciw.edu/silver_fellowship). Check contributions to the Celine M. Silver Memorial Scholarship Fund should be made payable to Walter Johnson High School, 6400 Rock Spring Drive, Bethesda MD 20814. For information about contributing to the Celine Silver Endowed Intern Scholarship in Coastal Ecology at the MOTE Marine Laboratory (Sarasota, FL), please contact Lisa Abbott at [labbott@mote.org](mailto:labbott@mote.org).

In August, the National Institute of Standards and Technology (NIST) hosted a meeting which brought agency representatives together with the organizers of a new study being undertaken by the National Academies Committee on Science, Engineering, and Public Policy (COSEPUP). The study is intended to provide structure and vocabulary for a National resilience plan and is likely to be the first in a series of reports that establish goals for disaster reduction. These reports will look for overlaps and disconnects in the Federal effort and are expected to be tractable and penetrable. The meeting was an opportunity for agencies to commit funds for and provide input to the COSEPUP study. Most of the required funds have been raised and the study will be going forward.

Applegate noted that recent support from agencies to the SDR means that the subcommittee is in a good place to move forward as the new administration does. The SDR has submitted side event proposals to the Department of State, which is organizing the U.S. Exhibit at the Climate Change Conference in December in Copenhagen. The SDR also is exploring reprinting the *Grand Challenges* for the conference to highlight the relevance of disaster mitigation to climate change adaptation.

Applegate, SDR Vice-Chair Margaret Davidson (NOAA), and Craig Dobson (NASA) have co-authored a disasters topic paper at the request of USGEO in preparation for the Group on Earth Observations (GEO) Sixth Plenary meeting (November 17-18). In 2006, the team was involved in drafting the document "Improved Observations for Disaster Reduction: Near-Term Opportunity Plan." In authoring the disasters topic paper, the team drew from this document and linked to the GEO 2009-2011 Work Plan, an international planning document.

From August 31 to September 6, the Department of Homeland Security is conducting a National Dialogue on the Quadrennial Homeland Security Review (QHSR). The QHSR is a congressionally-mandated full review of homeland security that will guide policies in this field for the next four years. Agency representatives who wish to provide input can find more information at [www.homelandsecuritydialogue.org](http://www.homelandsecuritydialogue.org).

Applegate reported that the U.S. House of Representatives Committee on Science and Technology is preparing draft legislation that would reauthorize NEHRP and WINDHRP and pursuant to a third

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title, house both groups under an all hazards superstructure. Discussions with the agencies are yielding opinions that standing up a new all hazards superstructure would be extremely complex. The Senate does not seem to have as much appetite for an overhaul.

Applegate reported the SDR Coastal Group will next meet via teleconference on September 16<sup>th</sup> at 10:00 a.m. The group will remain an *ad hoc* body for now but the SDR wants to keep the energy and enthusiasm going.

Kolak noted that OSTP has not been able to reach a decision on how broad or narrow this group should be. He stated that OSTP does not want this group to compete with others in the NSTC structure.

### V. Report from the Vice-Chairs

Vice-Chair Dennis Wenger (NSF) stated that Federal agencies have been very generous this year in their contributions to the Natural Hazards Center at the University of Colorado. In particular, FEMA, Forest Service, NOAA, and USGS have all made significant contributions.

### VI. National Preparedness Month

Steve Carruth (FEMA) introduced his colleague Kerry Hoerth from FEMA's Community Preparedness Division.

Hoerth thanked the SDR for the opportunity to present on National Preparedness Month (NPM), which kicked off on September 1<sup>st</sup>. Now in its sixth year, the NPM is a nationwide effort organized by FEMA's Citizen Corps and the Ready Campaign and supported by a coalition of public and private organizations to encourage Americans to take simple steps to prepare for emergencies in their homes, businesses and communities. The explicit goal of NPM in 2009 is to change perceptions about emergency preparedness and help Americans understand what it truly means to be ready. As a corollary, the campaign seeks to challenge people's belief that they are adequately prepared or can improvise in a disaster/emergency.

The Citizen Corps was created in January 2002 to increase opportunities for citizens to become an integral part of protecting the homeland and supporting local first responders. It is intended to capture the spirit of service that emerged throughout our communities following the September 11<sup>th</sup> terrorist attacks and to help answer two key questions being asked by citizens, "What can I do?" and "How can I help?" The specific mission of the Citizen Corps is to harness the power of every individual through education, training, and volunteer service to make communities safer, stronger, and better prepared to respond to the threats of terrorism, crime, public health issues, and disasters of all kinds.

Hoerth described the rationale which supports having a program like the Citizen Corps. In 95 percent of all emergencies, bystanders or victims themselves are the first to provide emergency assistance or to perform a rescue. In fact, less than 1 percent of the U.S. population is an emergency responder. There is only 1 firefighter for every 265 people, 1 sworn officer for every 334 people, and 1 EMT/paramedic for every 325 people.

The Citizen Corps' mission is accomplished through a national network of 2,400 state, local, and tribal Citizen Corps Councils, involving first responders, elected officials, the military, media, faith-based and business leaders, and others. The Councils build on community strengths to implement the Citizen Corps programs and carry out a local strategy to have every American participate. Collaboration with national partners and affiliate organizations, of which there are 31 in total (i.e.,

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The Red Cross), and countless local organizations also is integral to accomplishing the Citizen Corps mission. Next week the Citizens Corps is launching a partnership with the Girl Scouts of America.

The Citizens Corps conducted national surveys in 2003 and 2007 and recently fielded its third. The 2009 National Survey, conducted from April to May, 2009, was aimed to measure the public's knowledge, attitudes, and behaviors relative to preparing for a range of hazards. The survey's National Sample included 3,448 households. An Urban Sample was gathered in Chicago, Houston, Los Angeles/Long Beach, New York/Newark, San Francisco, Washington, DC areas and encompassed 3,007 households.

The survey offers comprehensive data on the public's thoughts, perceptions, and behaviors related to preparedness and community safety for multiple types of hazards. It provides valuable insights for increasing personal preparedness, civic engagement, and community resilience. The results have important implications for the development of more effective communication and outreach strategies to achieve greater levels of preparedness and participation.

### Recommendations based on 2009 National Survey results:

- **Stress that preparedness is a shared responsibility.** Results from the national survey indicate that 30 percent of Americans have not prepared because they think that emergency responders will help them and that over 60 percent expect to rely on emergency responders in the first 72 hours following a disaster. While government will execute its functions, communications to the public should convey a more realistic understanding of emergency response capacity and emphasize the importance of self-reliance. Messaging should speak to a shared responsibility and stress that everyone has a role to play in preparedness and response.
- **Provide more specificity on preparedness actions.** This research also found that many people who report being prepared have not completed important preparedness activities or do not have a sound understanding of community plans. Of those who perceived themselves to be prepared, 36 percent did not have a household plan, 78 percent had not conducted a home evacuation drill, and 58 percent did not know their community's evacuation routes.
- **Highlight additional preparedness needs for people with disabilities.** Fourteen percent of respondents reported having a physical or other disability that would affect their capacity to respond to an emergency situation. Alarming, however, few individuals with disabilities had taken specific actions to help them respond safely in the event of an emergency. Only 27 percent had taken a CPR or first aid training and less than half (47%) had a household plan. Another 14 percent of survey participants indicated they lived with and/or cared for someone with a physical or other disability. Of these individuals less than 40 percent reported taking a CPR or first aid training (36% and 39% respectively) and 53 percent had supplies set aside in their home.
- **Emphasize the importance of drills and exercises.** Practicing response protocols is critical for effective execution; this is true for emergency responders and true for the public. Fewer than half the surveyed individuals (41%) had practiced a workplace evacuation drill, only 14 percent had participated in a home evacuation drill, and of those in school and/or with children in school, only 23 percent had participated in a school evacuation drill. And the numbers are much lower for shelter-in-place drills (27%, 10%, and 13% respectively). Drills and exercises for multiple hazards and multiple locations need to be conducted through social networks. In addition, community members need to be included more effectively in government-sponsored community exercises.
- **Offer specialized information on the survivability of manmade disasters.** These results indicate that individuals' perceived utility of preparing and their confidence in their ability to

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respond varies significantly by disaster type. Only 7 percent of individuals felt that nothing they did would help them handle a natural disaster, whereas 35 percent felt nothing they did would help them in an act of terrorism, such as a biological, chemical, radiological, or explosive attack. All-hazards terminology may mask important nuances relative to conveying personal preparedness guidance for specific hazards. It is important to emphasize the survivability of manmade disasters and the relevant protective measures for these hazards.

- **Couple a national voice with local specificity.** National leaders must be strong advocates for personal preparedness, but it is clear that messages specific to individual preparedness must include critical local information, such as information on local hazards, local alerts and warnings, and local community response protocols. Local social networks must also be used to support outreach and education on personal preparedness, such as neighborhoods, the workplace, schools, and faith communities. And the concepts of mutual support at the local, neighborhood level should be emphasized.

The second organizing vehicle for National Preparedness Month is *Ready*, a national public service campaign sponsored by the FEMA in partnership with The Advertising Council. The campaign seeks to educate and empower Americans to prepare for and respond to emergencies, including natural disasters and potential terrorist attacks, and is intended to ultimately increase our nation's level of preparedness.

Hoerth once again thanked the subcommittee members for the opportunity to speak with them and answered questions.

Wenger asked how the Community Emergency Response Team (CERT) program and others fit with the Citizen Corps, the Ready Campaign, and National Preparedness Month.

Hoerth responded that CERT is coordinated in FEMA's Community Preparedness Division and falls under the Citizen Corps umbrella.

Lisa Burg (NGB) asked whether Hoerth's office was coordinating with the National Guard.

Hoerth stated that coordination is indirect, through CERT.

Kolak asked Hoerth and her colleagues at FEMA to ponder and provide future feedback on whether there is a role in any of the programs Hoerth mentioned for the SDR.

More information about the Citizen Corps, the Ready Campaign, and National Preparedness Month is available at <http://www.citizencorps.gov>.

Hoerth's PowerPoint presentation is available through the members only section of the SDR website. To access the presentation, go to [www.sdr.gov](http://www.sdr.gov). Click "For Members". Enter the user name: SDR.member and the password: SDR#2003. (yes, that's a period on the end).

### **VII. Presentation: NASA's Decadal Survey Missions and Natural Disasters Program**

Applegate introduced Andrea Donnellan (NASA) to present on NASA's Decadal Survey Missions and Natural Disasters Program. Donnellan acknowledged and thanked her NASA colleagues Michael Goodman and Craig Dobson for assisting with the presentation.

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Donnellan is a geophysicist at NASA's Jet Propulsion Laboratory (JPL) and is a research professor at the University of Southern California. Andrea integrates satellite technology with high performance computer models to study earthquakes, plate tectonics, and the corresponding movements of the Earth's crust. She has served at JPL in several capacities, including Principal Investigator of NASA's QuakeSim project; Project Scientist of a mission to study natural hazards, ice sheets, and ecosystems; and Deputy Manager of the Laboratory's Science Division. She has conducted field studies in California in the region of the Northridge earthquake, the Ventura basin, and on the San Andreas Fault. She has also carried out fieldwork on the West Antarctic Ice Streams, in the Dry Valleys, and in Marie Byrd Land of Antarctica, on the Altiplano of Bolivia, in Mongolia, and on Variegated Glacier in Alaska. She has a B.S. degree in geology from the Ohio State University, an M.S. and Ph.D. in geophysics from Caltech, and an M.S. in Computer Science from USC.

The purpose of NASA's Natural Disasters Program is to provide the agency's expertise and capabilities in the areas of spaceborne and airborne platforms and observations, higher level data products, and modeling and analysis to improve forecasting, mitigation, and response to natural disasters. As research agency, NASA develops new instruments, analysis tools and other capabilities that can be applied to natural disasters. Improvements in disaster response could be achieved by developing better flow of information, including cataloging capabilities, products, applicable disasters, and points of contact at NASA and other agencies.

NASA relies on the science community to identify and prioritize leading-edge scientific questions and the observations required to answer them. One principal means by which NASA engages the science community in this task is through the National Research Council (NRC) of the National Academies. The NRC conducts studies that provide a science community consensus on key questions posed by NASA and other U.S. Government agencies. The broadest of these studies in NASA's areas of research are decadal surveys. As the name implies, NASA and its partners ask the NRC once each decade to look out ten or more years into the future and prioritize research areas, observations, and notional missions to make those observations.

The NRC completed its first decadal survey for Earth science, [Earth Science and Applications from Space: National Imperatives for the Next Decade and Beyond](#), in January 2007 at the request of NASA, NOAA, and the USGS. At the highest level, the report recommends that: "The U.S. government, working in concert with the private sector, academe, the public, and its international partners, should renew its investment in Earth-observing systems and restore its leadership in Earth science and applications" (pg. 2). For the next decade, the decadal survey identified 15 new space missions for NASA (including 1 joint mission with NOAA) and 3 missions for NOAA (including the 1 joint mission).

Donnellan announced that NASA is taking a new approach to planning its upcoming Earth observation missions, seeking other agency input up front in the design process so that the transition from research tools to operational tools is considered from the start. All of the upcoming decadal survey missions have applications across multiple natural hazards. As part of an effort to reach out to stakeholders, NASA will be holding a workshop in January on these missions and a workshop in early spring on natural disasters. Those interested in attending and exploring other opportunities for collaboration with NASA are encouraged to contact Andrea ([andrea.donnellan@jpl.nasa.gov](mailto:andrea.donnellan@jpl.nasa.gov)) or Michael ([michael.goodman@nasa.gov](mailto:michael.goodman@nasa.gov)).

Donnellan's PowerPoint presentation, which includes more information about NASA's disaster-related, Tier 1 decadal survey missions (SMAP, DEDynI, CLARREO, and ICESAT-II) as well as an overview of projects currently underway in NASA's Natural Disasters Program, is available through

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the members only section of the SDR website. To access the presentation, go to [www.sdr.gov](http://www.sdr.gov). Click "For Members". Enter the user name: SDR.member and the password: SDR#2003. (yes, that's a period on the end).

## VIII. Adjournment

The meeting adjourned at 12:11 a.m.

## IX. 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.

October 1, 2009

November 5, 2009

December 3, 2009

## X. 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)).

## XI. 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)

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

Jon Kolak, NSTC Liaison, 202-456-6081, [jkolak@ostp.eop.gov](mailto:jkolak@ostp.eop.gov)

## Secretariat

Emily Wallace, 703-560-7448, [ewallace@grs-solutions.com](mailto:ewallace@grs-solutions.com)

## XII. Summary of September Actions

Action	Lead	By When
Contact Andrea Donnellan ( <a href="mailto:andrea.donnellan@jpl.nasa.gov">andrea.donnellan@jpl.nasa.gov</a> ) or Michael Goodman ( <a href="mailto:michael.goodman@nasa.gov">michael.goodman@nasa.gov</a> ) if you are interested in attending NASA workshops and exploring other opportunities for collaboration.	SDR Members	ASAP
Let Ross ( <a href="mailto:rfaith@grs-solutions.com">rfaith@grs-solutions.com</a> ) know if you are interested in participating in the writing team for a SDR white paper on the role of disaster reduction in climate change adaptation strategies.	SDR Members	September 25
Send Jon Kolak ( <a href="mailto:jkolak@ostp.eop.gov">jkolak@ostp.eop.gov</a> ) or Ross ( <a href="mailto:rfaith@grs-solutions.com">rfaith@grs-solutions.com</a> ) your blog ideas for the OSTP website.	SDR Members	Standing
Visit <a href="http://www.ciw.edu/silver_fellowship">http://www.ciw.edu/silver_fellowship</a> , for information about supporting the Paul G. Silver Postdoctoral Fellowship in Seismology	SDR Members	Standing
Make check contributions to the Celine M. Silver Memorial Scholarship Fund payable to Walter Johnson High School, 6400 Rock Spring Drive, Bethesda MD 20814.	SDR Members	Standing
Contact Lisa Abbott ( <a href="mailto:labbott@mote.org">labbott@mote.org</a> ) about contributing to the Celine Silver Endowed Intern Scholarship in Coastal Ecology at the MOTE Marine Laboratory.	SDR Members	Standing
Contact Peter Bobrowsky ( <a href="mailto:pbobrows@nrcan.gc.ca">pbobrows@nrcan.gc.ca</a> ) if you are interested in contributing to Springer	SDR Members	Standing



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Verlag's Encyclopedia of Natural Hazards.		
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