

# Meeting Minutes of the Subcommittee on Disaster Reduction

02 May 2013, 10:00 a.m. to 12:00 p.m., White House Conference Center Lincoln Room

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

## Co-chairs

David Applegate (USGS)  
Margaret Davidson (NOAA)  
Dennis Wenger (NSF)

## OSTP Liaison

Tamara Dickinson (OSTP)

## Designated Representatives

**BLM** *Edwin Roberson*  
**CDC** *Mark Keim*  
**DHS** Bruce Davis (T)  
**DHS/FEMA** Roy Wright  
**DHS/USCG** *Austin Gould*  
**DOD** *Al Johnson*  
**DOE** *Patricia Hoffman*  
**DOT** *Sheila Duwadi*  
**EOP/OMB** *Grace Hu*  
**EOP/OSTP** Tamara Dickinson  
**EPA** *Peter Jutro*  
*Stephen Clark*

**FERC** *Marsha Palazzi*  
**HUD** *Dana Bres*  
**NASA** Craig Dobson  
**NGA** *Paul Lewis*  
**NGB** *TBD*  
**NIH** *Allen Dearry*  
**NIST** Marc Levitan (T)  
**NOAA** Margaret Davidson (T)  
Christopher Strager  
**NPS** Marcy Rockman  
**NSF** Dennis Wenger  
**OPHS** Estella Jones (T)

**State** Fernando Echavarria  
**USACE** *Steven Cary*  
Dimitra Syriopoulou  
**USAID** Sezin Tokar  
**USDA** *TBD*  
**USFS** *Elizabeth Reinhardt*  
*Carlos Rodriguez-Franco*  
**USGS** David Applegate  
**USNRC** Steven West

## Other Attendees

**BLM** Nancy Dean  
Ronald McCormick  
**DHS** Mary Ellen Hynes  
**EOP/CEQ** Jamie Pool  
**EOP/OSTP** Brian Forde  
**EPA** Brendan Doyle

**EPA** Keely Maxwell  
Jayne Michaud (T)  
**NASA** Michael Goodman (T)  
**NOAA** Nell Codner (T)  
**NPS** Ann Hitchcock  
**State** Rajan Sen

**USCG** Tung Ly (T)  
**USFS** Jason Steinmetz  
**Secretariat** Bret Schothorst  
Barbara Haines-Parmelee

## Agenda

10:00 Welcome and Introductions  
10:05 Report from the Co-chairs and Approval of Minutes  
10:10 Report from the OSTP Liaison  
10:15 Briefing: OSTP Efforts to Develop a Unified Strategy for Building and Pre-Positioning Needed Tech Tools for Future Disasters  
10:35 Presentation: NOAA 2013 Midwest Spring Flood Outlook  
10:55 Roundtable Discussion: Budget Impacts on Agencies' S&T Disaster Risk Reduction Activities in FY 2013 and FY 2014  
11:55 Close and Next Actions

## Handouts

- May Meeting Agenda
- Draft April Meeting Minutes
- OSTP blog post on the release of the *National Strategy for Civil Earth Observations*
- OSTP blog post on the release of the report, *Space Weather Observing Systems: Current Capabilities and Requirements for the Next Decade*
- Handout from NRC on their proposed June workshop, *An All-of-Government-Approach to International Consequence Management for CBRNE Events*

## **I. Welcome and Introductions**

National Science and Technology Council (NSTC) Subcommittee on Disaster Reduction (SDR) Co-chair David Applegate (USGS) called the May meeting to order at 10:01 a.m., and participants introduced themselves.

## **II. Report from the Co-chairs and Approval of Minutes**

The April meeting minutes were approved with no changes.

Co-chair Dennis Wenger (NSF) gave a short report-out on the April 25 Capitol Hill briefing put on by the Coalition for National Science Funding in conjunction with the House Research and Development Caucus titled *Social Science Research on Disasters: Communication, Resilience, and Consequences*. More information on the meeting, as well as links to the event speakers' presentations, can be found at: <http://www.researchcaucus.org/schedule/2013/25April2013/index.asp>.

Wenger reminded members that the SDR International Working Group (IWG) will continue to meet in 2013 on the first Thursday of every month from 1:00 p.m. to 2:30 p.m. in the WHCC's Lincoln Room. At the working group's May meeting, the IWG will discuss details and logistics of the upcoming UNISDR Global Platform meeting in Geneva, Switzerland, May 19-23, 2013.

He also encouraged SDR agencies to consider providing funding support to the University of Colorado-Boulder's Natural Hazards Center to assist the institute with their mission to advance and communicate knowledge on hazards mitigation and disaster preparedness, response, and recovery. Please contact Wenger ([dwenger@nsf.gov](mailto:dwenger@nsf.gov)) for more information if you are interested in contributing to this important fundraising effort.

## **III. Report from the OSTP Liaison**

In the monthly report from the SDR's Office of Science and Technology Policy (OSTP) Liaison, Tammy Dickinson mentioned that the NSTC recently released a *National Strategy for Civil Earth Observations* online at: [http://www.whitehouse.gov/sites/default/files/microsites/ostp/nstc\\_2013\\_earthobsstrategy.pdf](http://www.whitehouse.gov/sites/default/files/microsites/ostp/nstc_2013_earthobsstrategy.pdf). Additionally, Dickinson noted that OSTP recently released the report *Space Weather Observing Systems: Current Capabilities and Requirements for the Next Decade*, which can be accessed by visiting: [http://www.whitehouse.gov/sites/default/files/microsites/ostp/spaceweather\\_2013\\_report.pdf](http://www.whitehouse.gov/sites/default/files/microsites/ostp/spaceweather_2013_report.pdf).

For information, she also discussed that the National Research Council is holding a planning meeting on Monday, May 6 from 2:00-4:00 p.m. (The Keck Center of the National Academies, 500 Fifth Street NW, Room 201, Washington, DC) for an upcoming Chemical, Biological, Radiological, Nuclear, and Explosives (CBRNE) workshop titled *An All-of-Government-Approach to International Consequence Management for CBRNE Events* that will be held in Washington, DC June 20-21, 2013.

Dickinson provided a short update on the activities of the Hurricane Sandy Rebuilding Task Force Science Coordination Working Group, which continues to progress in its objectives to ensure that rebuilding efforts are informed by the most recent and relevant scientific advice to improve resilience and preparedness and to identify the important scientific information needs of decision- and policy-makers on the ground and in agencies within the Task Force effort. SDR members interested in participating in the group's initiatives should contact Dickinson ([tdickinson@ostp.eop.gov](mailto:tdickinson@ostp.eop.gov)) or Kevin Werner (NOAA) ([kevin.werner@noaa.gov](mailto:kevin.werner@noaa.gov)), who is on detail to HUD as the Science Liaison for the Task Force.

Finally, on a related note, she mentioned that the Subcommittee is planning to utilize the SDR post-Sandy S&T lessons learned white paper as a guide to further address the issue of Federal geospatial and remote sensing data interoperability during disasters at the SDR meetings in June and July. EPA has volunteered

to lead the discussion, but please contact the SDR Secretariat ([bret.schothorst@mantech.com](mailto:bret.schothorst@mantech.com)) and Dickinson ([tdickinson@ostp.eop.gov](mailto:tdickinson@ostp.eop.gov)) to assist in the planning and coordination effort.

#### **IV. Briefing: OSTP Efforts to Develop a Unified Strategy for Building and Pre-Positioning Needed Tech Tools for Future Disasters**

Applegate introduced Brian Forde (OSTP), who is Senior Advisor to the U.S. Chief Technology Officer at OSTP. Forde is leading an effort at OSTP that aims to collaboratively build and pre-position needed tech tools ahead of future emergencies or natural disasters in order to mitigate economic damage and save lives. Once these tools are built and rolled out, he noted that they can be used collaboratively by the private sector, first responders, local officials, volunteers, and survivors themselves in order to get information where it needs to be in real-time during extreme events.

To begin his briefing, Forde highlighted recent examples during Hurricane Sandy of private sector tech community innovation and support – nearly 800 developers offered assistance during the disaster – and noted several additional data-driven opportunities for continued engagement from the Federal agencies in this important area. The tech community’s response to Hurricane Sandy shed new light on the potential for crowdsourced and private-sector data and tech tools to help during a large-scale emergency. Forde noted that as calls went out for solutions to challenging problems, leaders from the tech community inside and outside of government offered a number of novel means of support, highlighting the important potential of tech expertise in the domain of disaster recovery. Specific examples included:

- **Airbnb**: Increased the supply of housing for displaced survivors by building a housing portal that allowed people to donate their spare bedrooms, vacant homes, or apartments. When Airbnb originally built their billing platform, they had not anticipated homeowners donating their rooms to disaster survivors. Because of this, the Airbnb billing system had to be reengineered to allow people to charge \$0. Today, their platform is ready for the next disaster by enabling people to donate spare rooms.
- **Twitter**: Provided a valuable platform for survivors to post the status of gas stations and was used by a group of students from Franklin High School in New Jersey who added those comments to an open database used by Google to inform Federal officials and survivors;
- **Google**: Improved the Federal governments situational awareness on the status of the fuel supply chain, particularly information on the status of retail gasoline stations by combining data sources from the private sector, social media, and other sources and displaying them in their popular Google Crisis Map; and
- **Walk Score**: Developed an invaluable tool for displaced survivors to help search for housing by commute-time using various modes of transit. This tool can now be easily replicated by Walk Score for future disasters.

Forde outlined that OSTP is in the process of forming an interagency working group to assist the development of this strategy. The Tech for Disaster Interagency Working Group will host weekly calls and monthly meetings to develop and implement the strategy and tools necessary to support survivors and responders during a disaster. According to Forde, the working group will seek to define in advance what needs are likely to arise before, during, and following a disaster that could be addressed with data and tech solutions and work to develop and pre-position those solutions in advance. The team also will address any associated policy or regulatory issues, guide the development of new and integration of existing tools, assist technology companies in becoming disaster ready, and, most importantly, strive to tech-enable all those potentially impacted or responding to America’s next major natural disaster.

Applegate offered to link Forde up with Lea Shanley of the Commons Lab of the Woodrow Wilson International Center for Scholars, which facilitated the panel discussion *Connecting Grassroots to Government for Disaster Management* in September 2012. That panel focused on the issue of harnessing the collective power of citizens and engaging communities in their own response and recovery through

new technologies and methods like social media and crowdsourcing, which have the potential to transform disaster management by utilizing the immense distributive capability of existing social media platforms such as Twitter. In response to Forde's request for SDR member participation in the effort, Brendan Doyle (EPA) noted that his agency developed an online tool called iWaste that was able to assist several local municipalities in New York and New Jersey with vegetative and household hazardous waste disposal during Hurricane Sandy and noted that EPA would like to get this application linked into OSTP's tech tool distribution network for the next disaster.

Demi Syriopoulou (USACE) offered to connect Forde with her organization's activities in this area, and Ann Hitchcock (NPS) promised to reach within her agency to discuss potential applications and tech tools related to cultural and natural resources, including the restoration of historic buildings and structures after a disaster. Roy Wright (FEMA) added that FEMA has a need in the cultural space as well, regarding the agency's requirement to determine a before and after damage baseline for historic structures during the response phase in the immediate aftermath of a disaster.

If other SDR members would like to participate in this interagency working group or would like to propose additional ideas for tech tools for disasters, please contact Forde ([Brian\\_J\\_Forde@ostp.eop.gov](mailto:Brian_J_Forde@ostp.eop.gov)).

#### **V. Presentation: NOAA 2013 Midwest Spring Flood Outlook**

Applegate introduced Chris Strager (NOAA), who is Director of the NOAA National Weather Service Office of Climate, Water, and Weather Services and serves as the official SDR representative from NOAA NWS. Strager presented the 2013 Midwest spring flood outlook for the Red River of the North and Souris River affecting North Dakota and Minnesota as well as for the Mississippi, Illinois, Des Plaines, White, and Wabash Rivers affecting Illinois, Indiana, Iowa, and Missouri. All of the rivers that Strager discussed in his presentation had recently crested but were still experiencing moderate to major flooding at the time of his talk.

According to Strager, overland and river flooding forecast information comes from 13 NWS River Forecast Centers (RFC), located in the following regions:

- Alaska-Pacific RFC – Anchorage, AK
- Arkansas-Red Basin RFC – Tulsa, OK
- California-Nevada RFC – Sacramento, CA
- Colorado Basin RFC – Salt Lake City, UT
- Lower Mississippi RFC – Slidell, LA
- Middle Atlantic RFC – State College, PA
- Missouri Basin RFC – Pleasant Hill, MO
- North Central RFC – Chanhassen, MN
- Northeast RFC – Taunton, MA
- Northwest RFC – Portland, OR
- Ohio RFC – Wilmington, OH
- Southeast RFC – Peachtree City, GA
- West Gulf RFC – Ft. Worth, TX

Strager stated that these forecast centers run the hydrologic models that determine flooding stages of rivers across the U.S. He noted that 122 NWS weather forecast offices spread around the country then work with state and local emergency managers and other government officials to analyze the model information to determine the local impacts of the forecasts.

Regarding the North Central RFC that makes predictions for the Red River of the North, Strager noted that 2013 was an unusual year for the Red River in that the month of April recorded much colder

temperatures than normal, which lead the area to have a very late thaw – the latest on record for that far north. Although the timing of the thaw wasn't ideal and could have increased the potential for flooding, the area had nearly perfect temperatures (warm during the day and cold at night), decreased spring precipitation amounts, and low ground saturation levels to minimize the effects of the rapidly melting snow. According to the NWS National Operational Hydrologic Remote Sensing Center, five to eight inches of water content in the snowpack across Minnesota, North Dakota, and South Dakota was released in less than two weeks leading up to the spring flooding due to this delayed melt off.

Strager underlined that in the cases of the Red River of the North and the Souris River flooding affecting North Dakota and Minnesota, NOAA began bi-weekly coordination in February 2013 with Federal, tribal, state, and local government officials and partners (including Canada). Snowpack and river conditions were continually monitored with coordination between NWS, USACE, USGS, FEMA, the Saskatchewan Water Security Agency, Manitoba Ministry of Infrastructure and Transportation, and Environment Canada. The NWS also used novel modified modeling techniques, in collaboration with USGS and USACE, to ensure conveyance of the best information possible and embedded Emergency Response Specialists to provide interpretive decision support services during the snow melt for FEMA as well as state and local Emergency Operation Centers.

Regarding the Midwest river floods of the Mississippi and Illinois Rivers in Illinois and Indiana, Strager stated that record crests were recorded for the Illinois River in Peoria, IL with significant local flooding impacts realized. The rivers were temporarily closed to vessel navigation, and 114 barges broke loose on April 20 damaging several gates of Mississippi River's Marseilles Dam with nine sinking due to rising flood waters. Due to this damage, the governor of Illinois declared a disaster for 44 counties in the state. For the Wabash River in Indiana, several levees overtopped in a 40-mile stretch, with a levee failure in Vigo County that isolated trailer parks and 20 homes near Terre Haute, IN. Many additional farmland areas were still heavily flooded at the time of Strager's presentation.

Mary Ellen Hynes (DHS S&T) was concerned about what effect 2012's record drought across much of the Western and Midwest U.S. had on the 2013 NWS spring flooding forecast and outlook. Strager stated that the wet cycle has been very much feast or famine during the past several years and difficult to predict overall. Hynes noted that the uncertain and extreme cycle of flooding and drought recently has had huge economic implications in the agricultural world on how farmers delicately balance water issues in the regions affected. Strager added that, due to the recent droughts, the fire threat is now quickly growing in the Southwest U.S. and in California with very dry ground conditions, high winds, and low humidity levels present that don't typically appear until later in the summer months. Jason Steinmetz (USFS) added that the USFS is in the process of rolling out its three-month wildland fire and fire danger outlook for southern California and nearby areas and would be happy to present his agency's 2013 predictions at a future SDR meeting this summer.

If SDR members have any additional questions or concerns about the 2013 Midwest spring flooding and its related impacts, please contact Strager ([christopher.strager@noaa.gov](mailto:christopher.strager@noaa.gov)) for more information.

## **VI. Roundtable Discussion: Budget Impacts on Agencies' S&T Disaster Risk Reduction Activities in FY 2013 and FY 2014**

Applegate and Dickinson led a roundtable discussion of the impacts that budget sequestration cuts are having on agencies' disaster reduction S&T activities in FY 2013 as well as an outlook of the President's FY 2014 budget request released earlier this month. SDR agencies who participated in this conversation at the meeting were USGS, NASA, USACE, FEMA, BLM, USNRC, EPA, NOAA, NSF, USFS, NPS, OPHS, DHS, and State. The conversation provided OSTP with a valuable overview of changes in hazards-related S&T spending, both concerning programs within agencies and the impact on interagency work. All agencies are encouraged to send budget outlook write-ups summarizing their short briefings to

the SDR Secretariat ([bret.schothorst@mantech.com](mailto:bret.schothorst@mantech.com)) copying our OSTP Liaison Tammy Dickinson ([Tamara L Dickinson@ostp.eop.gov](mailto:Tamara.L.Dickinson@ostp.eop.gov)).

**VII. Adjournment**

Applegate adjourned the SDR March meeting at 12:01 p.m.

**VIII. Future Meetings**

SDR meetings in 2013 will be held from 10:00 a.m. to 12:00 p.m. on the dates listed below in the Lincoln Room of the White House Conference Center:

**2013**

- ✓ Thursday, June 6
- ✓ Thursday, July 11 (to avoid proximity to the Independence Day Federal holiday)
- ✓ Thursday, August 1 (subject to cancellation)
- ✓ Thursday, September 5
- ✓ Thursday, October 3
- ✓ Thursday, November 7
- ✓ Thursday, December 5

**IX. 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 the SDR Secretariat Bret Schothorst ([bret.schothorst@mantech.com](mailto:bret.schothorst@mantech.com)).

**X. Contact Information**

**SDR Leadership**

David Applegate	Co-chair	703-648-6600	<a href="mailto:applegate@usgs.gov">applegate@usgs.gov</a>
Margaret Davidson	Co-chair	843-740-1220	<a href="mailto:margaret.davidson@noaa.gov">margaret.davidson@noaa.gov</a>
Dennis Wenger	Co-chair	703-292-8606	<a href="mailto:dwenger@nsf.gov">dwenger@nsf.gov</a>
Tamara Dickinson	OSTP Liaison	202-456-6105	<a href="mailto:tdickinson@ostp.eop.gov">tdickinson@ostp.eop.gov</a>

**Secretariat**

Bret Schothorst	703-388-0312	<a href="mailto:bret.schothorst@mantech.com">bret.schothorst@mantech.com</a>
Barbara Haines-Parmele	703-388-0309	<a href="mailto:barbara.haines-parmele@mantech.com">barbara.haines-parmele@mantech.com</a>

**XI. Summary of May Actions**

Action	Lead	By When
Send brief write-ups outlining the impacts that budget sequestration cuts are having on your agency's disaster reduction S&T activities in FY 2013 as well as an outlook of the President's FY 2014 budget request to the SDR Secretariat ( <a href="mailto:bret.schothorst@mantech.com">bret.schothorst@mantech.com</a> ) copying our OSTP Liaison ( <a href="mailto:tdickinson@ostp.eop.gov">tdickinson@ostp.eop.gov</a> ).	SDR Members	ASAP
Contact Brian Forde ( <a href="mailto:Brian_J_Forde@ostp.eop.gov">Brian_J_Forde@ostp.eop.gov</a> ) to engage with OSTP's recent initiative to collaboratively build and pre-position needed tech tools and apps ahead of future emergencies or natural disasters in order to get information where it needs to be in real-time.	SDR Members and Federal Colleagues	ASAP

Contact the SDR Secretariat (bret.schothorst@mantech.com) and OSTP Liaison Tammy Dickinson (tdickinson@ostp.eop.gov) to assist in using the SDR post-Sandy S&T lessons learned white paper to further address the issue of geospatial and remote sensing data interoperability during disasters at future meetings.	SDR Members	ASAP
Reach out to Kevin Werner (kevin.werner@noaa.gov) and OSTP Liaison Tammy Dickinson (tdickinson@ostp.eop.gov) to engage with the Hurricane Sandy Rebuilding Task Force Science Coordination Working Group to identify important scientific information needs of decision-makers on the ground and in agencies within the Task Force effort.	SDR Members and Federal Colleagues	Standing
Email the SDR Secretariat (bret.schothorst@mantech.com) and OSTP Liaison Tammy Dickinson (tdickinson@ostp.eop.gov) if willing to pilot an assessment of the progress of the short-, mid-, and long-term goals outlined in an SDR Grand Challenges for Disaster Reduction implementation plans.	SDR Members	Standing
Contact OSTP Liaison Tammy Dickinson (tdickinson@ostp.eop.gov) and the SDR Secretariat (bret.schothorst@mantech.com) to participate in the initiative to incorporate natural hazards data sets to the Safety Data Community at Safety.Data.gov.	SDR Members and Federal Colleagues	Standing
Please consider supporting the work of the SDR and its Secretariat through a contribution from your agency. Let Co-chair David Applegate (applegate@usgs.gov) know if you need an Agency- or Department-specific request letter.	SDR Members	Standing
Contact Co-chair Dennis Wenger (dwenger@nsf.gov) if your agency is able to provide funding support to the University of Colorado-Boulder's Natural Hazards Center.	SDR Members and Federal Colleagues	Standing
Contact OSTP Liaison Tammy Dickinson (tdickinson@ostp.eop.gov) if it would be helpful for OSTP to issue a letter to your Agency or Department requesting new (or re-affirmed) designation of official representatives. Ideas for other entities that should be represented on the SDR are also welcome.	SDR Members	Standing