

Meeting Minutes of the Subcommittee on Disaster Reduction

4 February 2016, 10:00 a.m. to 12:00 p.m., White House Conference Center Lincoln Room

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

Co-chairs

David Applegate (USGS)
Margaret Davidson (NOAA)
Jack Meszaros (OSTP)

Designated Representatives

BLM *Ron McCormick*
CDC *Mollie Mahany*
DHS Mary Ellen Hynes (T)
DHS/FEMA *Roy Wright*
DHS/USCG *Robert Thomas*
DOD *Al Johnson*
DOE *Patricia Hoffman*
DOT Sheila Duwadi
EOP/OMB *Michael Clark*
EOP/OSTP Jack Meszaros
EPA *Greg Sayles*

FERC *Marsha Palazzi*
HUD *Dana Bres*
NASA *Craig Dobson*
NGA *TBD*
NGB *TBD*
NIH *Aubrey Miller*
NIST *Steve Cauffman*
NOAA Margaret Davidson (T)
Laura Furgione
NPS Marcy Rockman
NSF Greg Anderson

OPHS *Estella Jones*
State *Fernando Echavarria*
USACE Tony Niles
USAID Sezin Tokar
USDA *TBD*
USFS Matt Rollins
Carlos Rodriguez-Franco
USGS David Applegate
USNRC *Steven West*

Other Attendees

DHS Mitch Erickson (T)
Dan Marasco
Erin Walsh (T)
DHS/FEMA Doug Ham (T)
Kevin Long
Chris Vaughan
DOT Phil Yen
EOP/NSC Eric Letvin
Amy Rosenband
EPA Ken Buchholz (T)
Keely Maxwell
Eric Nold (T)
Chris Whitley (T)
David Williams (T)
HUD Kevin Bush

NASA Michael Goodman (T)
David Green
Andrew Molthan (T)
Sang-Ho Yun (T)
NGA Brian Cameron
NIH April Bennett
NOAA Mike Aslaksen (T)
Tom Graziano
Jon Sellars (T)
Chris Sloan (T)
Mark Sweeney (T)
Jason Woolard (T)
OPHS Tracy MacGill (T)
State Michael Hamburger
USDA Glenn Bethel (T)

USGS Lance Clampitt (T)
Ryan Longhenry (T)
Kris Ludwig (T)
Charlie Mandeville
Marie Peppler
Teresa Stoepler
USNRC Suzanne Dennis (T)
John Nakoski (T)
Dewberry Catherine Bohn
Andrew Peters
MITRE Bill Rajczak (T)
STPI Chris Clavin (T)
Zoe Petropoulos
SDR Secretariat
Bret Schothorst
Barbara Haines-Parmele (T)

Agenda

10:00 Welcome, Introductions, and Approval of Minutes
10:05 Co-chairs Report
10:20 Readout: White House Earthquake Resilience Summit
10:40 Briefing: Results of the HUD National Disaster Resilience Competition
11:00 Roundtable Discussion: Lessons Learned from the Recent Midwest Floods
11:55 Close and Next Actions

Handouts

- February Meeting Agenda
- Draft January Meeting Minutes
- Handout from EPA on S&T Response for Midwest Floods

I. Welcome and Introductions

National Science and Technology Council (NSTC) Subcommittee on Disaster Reduction (SDR) Co-chair David Applegate (USGS) called the February meeting to order at 10:01 a.m. in the White House Conference Center Lincoln Room, and participants introduced themselves.

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

The January monthly meeting minutes draft was approved with no changes.

Applegate reminded members that the SDR International Disaster Risk Reduction (IDRR) Working Group is in the process of reshaping the U.S. National Platform to incorporate DRR perspectives from non-Federal stakeholders as the United Nations Office for Disaster Risk Reduction (still using the UNISDR acronym) moves towards implementing the *Sendai Framework for Disaster Risk Reduction 2015-2030*. Under the proposal that was approved at the SDR November meeting, the U.S. National Platform plans to invite external stakeholder groups to present their latest DRR activities to the SDR on a quarterly basis beginning next month. The topic of discussion for the initial U.S. National Platform meeting at SDR will be to address how the U.S. – both within the U.S. Government and for its non-Federal partners – tracks disaster losses and other hazards-related statistics, as this subject will closely relate to our reporting expectations set forth by UNISDR pertaining to disaster reduction progress targets and indicators in the Sendai Framework. If you have suggestions of Federal agency or external stakeholder groups to invite to the meeting in March to present on this topic, please send them to the SDR Secretariat (bret.schothorst@mantech.com).

SDR Co-chair Jack Meszaros (OSTP) reported that the National Security Council (NSC) recently spun up a task force to look into extreme heat, anticipating problems for the coming summer. This effort is similar in scope to what the NSC has undertaken with regards to the recent multi-year drought and the current El Niño season. As part of this effort from an S&T perspective, SDR agencies involved in the SDR Grand Challenges *Heat Wave Implementation Plan* were asked at the December meeting to review areas of progress with respect to the Plan's short-, medium-, and long-term strategic actions. NOAA has kindly provided a straw man assessment for evaluation from its perspective, which will be circulated to interested CDC and EPA representatives for additional input in the coming week. Other agencies in addition to NOAA, CDC, and EPA that would like to be a part of this effort are encouraged to reach out to the SDR Secretariat (bret.schothorst@mantech.com) to participate in the small *ad hoc* working group.

Meszaros also mentioned the ongoing work of the Hazard Review Teams within the SDR National Preparedness S&T (NPST) Task Force that is well underway completing their S&T program crosswalks within the five PPD-8 mission areas. Beginning at a meeting next week, the teams will look to finalize their draft executive summary reports on the assessments as well as undertake the task of developing recommendations on a formal protocol to conduct joint, interagency post-event S&T evaluation as part of the third function laid out in the group's charter, which is slated for mid-February. The protocol will leverage recent event experiences and lessons learned to identify critical science needs and inform the prioritization of future national preparedness S&T investments. Also of note, the NPST is engaged in a collaborative effort with FEMA and the NSC to incorporate S&T language into the recent update of the National Preparedness Goal and Federal Interagency Operational Plans (FIOPs). As part of this activity, the NPST tentatively plans to participate on a writing team to draft a broader S&T Annex document for the FIOPs, which could serve as a template for an eventual follow-on document to the SDR Grand Challenges.

SDR Co-chair Margaret Davidson (NOAA) highlighted the Community Pilot Program of the National Academy of Sciences Resilient America Roundtable, which is partnering with its pilot communities to help community decision-makers and stakeholders build approaches for deciding how and where to invest resources to mitigate risk and build resilience in ways that allow them to explain and communicate those

investment decisions. The Program will host its first pilot community event next week in Charleston, South Carolina, a vibrant, historic city that is addressing persistent flooding events, storm surge, and hurricanes and the impacts of these events on critical infrastructure systems.

In addition, April Bennett (NIH) with the National Institute of Environmental Health Sciences invited SDR members to attend its third annual Federal interagency discussion that has been rescheduled for Friday, March 11 to explore Federal efforts for enhancing research capabilities in response to disasters. The NIH Disaster Research Response (DR2) Program, developed in collaboration with the National Library of Medicine, was created just over two years ago to help improve the agency's collective ability to conduct timely health research in response to disasters and other time-critical situations. More information is available at: <http://dr2.nlm.nih.gov/>.

III. Readout: White House Earthquake Resilience Summit

Meszaros provided a readout on the White House Earthquake Resilience Summit that was held on Tuesday, February 2, in the White House Eisenhower Executive Office Building (EEOB).

At the Summit, the Administration, together with public and private stakeholders, announced important steps toward a future with greater earthquake safety based on the latest building codes and earthquake warning technologies. Among those actions was a new Executive Order signed by the President to set earthquake guidelines for Federal facilities. Moreover, Federal, State, local, public, and private stakeholders announced a series of new actions and investments (<https://www.whitehouse.gov/the-press-office/2016/02/02/fact-sheet-obama-administration-announces-steps-increase-nations>) that will help bring a reliable, extensive earthquake early-warning system closer to reality.

The full text of the Executive Order establishing a Federal Earthquake Risk Management Standard can be found online at: <https://www.whitehouse.gov/the-press-office/2016/02/02/executive-order-establishing-federal-earthquake-risk-management-standard>. A White House blog post on advancing earthquake resilience can be viewed at: <https://www.whitehouse.gov/blog/2016/02/02/advancing-earthquake-resilience>. If you have any questions on the outcomes of the event, please reach out to Meszaros (Jacqueline_R_Meszaros@ostp.eop.gov).

IV. Briefing: Results of the HUD National Disaster Resilience Competition

Applegate introduced Kevin Bush (HUD) to discuss the results of HUD's National Disaster Resilience Competition (NDRC), which allocated nearly \$1 billion of Hurricane Sandy supplemental funding through HUD's Community Development Block Grant Disaster Recovery Program.

According to Bush, the primary goal of the competition was to promote risk assessment and planning and provide funding for the implementation of innovative, resilient housing and infrastructure projects to better prepare communities for future storms and other extreme events. Eligibility was geographically based on presidentially declared major disasters in 2011 to 2013, which included 48 of 50 states (all except Nevada and South Carolina), Puerto Rico, Washington, DC, and 17 local government entities.

Bush noted that the proposals were all heavily leveraged with other funding sources, and that there were several billion dollars' worth of highly rated proposed work that could not be funded but represented an opportunity for other Federal investments. The 13 winning proposals of the NDRC were:

- State of California: \$70,359,459
- State of Connecticut: \$54,277,359
- State of Iowa: \$96,887,177
- State of Louisiana: \$92,629,249
- City of New Orleans, LA: \$141,260,569
- State of New York: \$35,800,000

- City of New York, NY: \$176,000,000
- City of Springfield, MA: \$17,056,880
- State of Tennessee: \$44,502,374
- Shelby County, TN: \$60,445,163
- City of Minot, ND: \$74,340,770
- State of New Jersey: \$15,000,000
- Commonwealth of Virginia: \$120,549,000

For more information on the NDRC, please contact Bush (Kevin.J.Bush@hud.gov) or visit http://portal.hud.gov/hudportal/HUD?src=/press/press_releases_media_advisories/2016/HUDNo_16-006.

V. Roundtable Discussion: Lessons Learned from the Recent Midwest Floods

Applegate introduced Chris Vaughan (FEMA), who led an agency roundtable discussion on the recent Midwest floods that occurred in late December and early January of this year. This discussion provided the various SDR agencies an opportunity to talk about the S&T capabilities that were brought to bear for this event, in particular geospatial monitoring and modeling, and potentially set the stage for a lessons learned activity to identify best practices.

Vaughan, along with David Green (NASA), Sang-Ho Yun (NASA), and Brian Cameron (NGA), began the discussion by covering some of the geospatial and remote sensing aspects of the event response, including the use of Synthetic Aperture Radar (SAR) capabilities to generate high-resolution imagery of floodwaters and their impacts. Multispectral imaging by NASA's Earth Observing-1 mission provided valuable true color imagery and capabilities for derived products in the immediate wake of the disaster, which were applied to Landsat-7 and Landsat-8 missions, NASA's Aqua and Terra Moderate Resolution Imaging Spectroradiometer (MODIS) detections, Suomi-NPP Visible Infrared Imaging Radiometer Suite (VIIRS), and other imagery provided by Federal agency partners, the International Charter on Space and Major Disasters, and commercial vendors. Cameron noted that 7,400 damaged structures were assessed via NGA imagery products.

Tom Graziano (NOAA) of the National Water Center noted that the NOAA Liaison to FEMA provided decision support to FEMA Headquarters leadership and interagency partners and worked closely with geospatial personnel at FEMA to support internal predictive flood analytic products. The NOAA Liaison also translated hydrologic forecasts into KMZ files to depict the location and timing of peak crests along the Mississippi River and provided cloud cover forecasts to help prioritize remote sensing and aerial imagery collection opportunities. Graziano passed along that forecast information was briefed to FEMA and interagency partners on a daily basis and added that local National Weather Service Weather Forecast Offices routinely engaged in briefings with state and local emergency managers.

Ryan Longhenry (USGS) with the Earth Resources Observation Science (EROS) Center noted that the Hazards Data Distribution System (HDDS) was heavily used and that the International Charter was activated on January 3 at FEMA's request. Marie Pepler (USGS) covered USGS flood response activities including verifying flood inundation mapping and taking 330 special streamflow measurements in 10 states from December 22 through January 20. Tony Niles (U.S. Army Corps) highlighted his agency's Mobile Information Collection Application (MICA) and the unmanned aerial system operations used by USACE for the rapid assessment of levees and riverbanks, debris estimation, the assessment of condition of hydraulic structures, and the assessment of flow fluctuations in channels and overbanks.

David Williams (EPA) mentioned that EPA deployed a suite of mobile and web-based GIS technologies designed to collect and update information from the field and to provide Federal on-scene coordinators, state partners, and regional managers with situational awareness and a common operational picture of the

response. With the ESRI Collector for ArcGIS (Collector) app, teams were able to capture and share geo-tagged photos, digitize observed flood impacted areas, plot orphaned container locations for later recovery, detail road closures, and track flood inundation extents.

Vaughan closed the discussion by listing a few lessons learned from the event, such as the need to: 1) increase interagency collaboration to produce products in support of response and recovery efforts; 2) ensure existing protocols are continued to obtain SAR data quickly; and 3) organize after-action meetings focused on streamlining scientific and analytical modeling efforts. NGA plans to host a one- or two-day follow-on workshop to this discussion in conjunction with FEMA later this spring, and more details on the event will be circulated to SDR members as they become available.

VI. Adjournment

Applegate adjourned the SDR February meeting at 12:09 p.m. and noted that the group's next meeting will be held on Thursday, March 3 in the White House Conference Center Lincoln Room. Applegate reminded SDR members that the Subcommittee plans to spend time at the March meeting exploring how the U.S. – both within the U.S. Government and for its non-Federal partners – tracks disaster losses and other hazards-related statistics.

VII. SDR 2016 Meeting Calendar

SDR meetings in 2016 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 unless otherwise noted:

2016

- ✓ Thursday, January 7*
- ✓ Thursday, February 4
- ✓ Thursday, March 3
- ✓ Thursday, April 7
- ✓ Thursday, May 5
- ✓ Thursday, June 2
- ✓ Thursday, July 7
- ✓ Thursday, August 4**
- ✓ Thursday, September 8***
- ✓ Thursday, October 6
- ✓ Thursday, November 3
- ✓ Thursday, December 1

* January meeting will be held in Room 430ABC of the White House Eisenhower Executive Office Building (EEOB).

** August meeting subject to cancellation.

*** September meeting shifted to the second Thursday of the month to avoid proximity to the Labor Day Federal holiday.

VIII. 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@mantech.com).

IX. Contact Information

SDR Leadership

David Applegate	Co-chair	703-648-6600	applegate@usgs.gov
Margaret Davidson	Co-chair	843-740-1220	margaret.davidson@noaa.gov
Jack Meszaros	Co-chair	202-456-6020	Jacqueline_R_Meszaros@ostp.eop.gov

Executive Secretariat

Bret Schothorst	703-388-0312	bret.schothorst@mantech.com
Barbara Haines-Parmelee	703-388-0309	barbara.haines-parmelee@mantech.com

X. Summary of February Actions

Action	Lead	By When
The next SDR meeting will be held on Thursday, March 3 in the White House Conference Center Lincoln Room.	SDR Members	For Information
Reach out to the SDR Secretariat (bret.schothorst@mantech.com) with suggestions of Federal agencies and external stakeholder groups to invite to the SDR March meeting to discuss the topic of tracking U.S. disaster losses.	SDR Members	ASAP
Contact the SDR Secretariat (bret.schothorst@mantech.com) if your agency would like to participate in a small ad hoc working group to look at progress on the short-, medium-, and long-term strategic actions of the SDR Grand Challenges <i>Heat Wave Implementation Plan</i> .	SDR Members	ASAP
Email Kevin Bush (Kevin.J.Bush@hud.gov) for more information on the results of the HUD National Disaster Resilience Competition.	SDR Members and Federal Colleagues	Standing
Be on the lookout for more information from NGA and FEMA regarding a follow-on workshop to discuss lessons learned and best practices from the recent Midwest floods.	SDR Members and Federal Colleagues	Standing
Email the SDR Secretariat (bret.schothorst@mantech.com) to suggest external DRR stakeholder groups to invite to present at quarterly SDR meetings on behalf of the U.S. National Platform for UNISDR.	SDR Members	Standing
Submit additional agency suggestions of SDR plans and priorities for consideration in 2016 to the SDR Secretariat (bret.schothorst@mantech.com).	SDR Members	Standing