

Meeting Minutes of the Subcommittee on Disaster Reduction

03 April 2014, 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)
Dennis Wenger (NSF)

OSTP Liaison

Tamara Dickinson (OSTP)

Designated Representatives

BLM *Edwin Roberson*
CDC *Mark Keim*
DHS *Mary Ellen Hynes*
DHS/FEMA *Roy Wright*
DHS/USCG *Robert Thomas*
DOD *Al Johnson*
DOE *Patricia Hoffman*
DOT *Sheila Duwadi*
EOP/OMB *Michael Clark*
EOP/OSTP *Tamara Dickinson*
EPA *Peter Jutro*
Stephen Clark

FERC *Marsha Palazzi*
HUD *Dana Bres*
NASA *Craig Dobson*
NGA *Patricia Allen Aquinas*
NGB *TBD*
NIH *Aubrey Miller (T)*
NIST *Steve Cauffman*
NOAA *Margaret Davidson*
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 *Richard Guldin*
Elizabeth Reinhardt
Carlos Rodriguez-Franco
USGS *David Applegate*
USNRC *Steven West*

Other Attendees

DHS *Meredith Lee (T)*
DHS/FEMA *Marcie Roth (T)*
EOP/OSTP *Timothy Stryker*
EPA *Keely Maxwell*
Doug Steele (T)
NASA *Frank Lindsay*
NIH *April Bennett*

NIST *Marc Levitan (T)*
USDA *Glenn Bethel (T)*
USGS *Kiza Gates*
Kris Ludwig
Charlie Mandeville
STPI *Mitch Ambrose*
Chris Clavin

STPI *Jason Gallo*
InterAction *Abby Bruell*
Habitat for Humanity *Jane Katz*
Red Cross *Trevor Riggen*
SDR Secretariat *Bret Schothorst*
Barbara Haines-Parmele

Agenda

10:00 Welcome and Introductions
10:05 Report from the Co-chairs and Approval of Minutes
10:15 Briefing: Next Earth Observations Assessment
10:30 Briefing: Washington State Landslide
10:45 Presentation: Red Cross Domestic Disaster Operations
11:15 Presentation: InterAction Priorities for HFA2
11:55 Close and Next Actions

Handouts

- April Meeting Agenda
- Draft March Meeting Minutes
- UNISDR Proposed Elements for HFA2
- InterAction Handouts

I. Welcome and Introductions

National Science and Technology Council (NSTC) Subcommittee on Disaster Reduction (SDR) Co-chair David Applegate (USGS) called the April meeting to order at 10:03 a.m. in the Lincoln Room of the White House Conference Center (WHCC), and participants introduced themselves.

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

The March monthly meeting minutes were approved with no changes.

In the report from the Co-chairs, Applegate highlighted the work of FEMA's *America's PrepareAthon!* initiative, which is a nationwide, community-based campaign for action that builds on PPD-8 efforts to increase emergency preparedness and resilience through hazard-specific drills, group discussions, and preparedness exercises. The first *America's PrepareAthon!* National Day of Action is scheduled for April 30, 2014, and SDR member agencies are encouraged to participate. This initial spring event will revolve around taking actions to prepare for tornadoes, wildfires, floods, and hurricanes, while a subsequent event in the fall will center on preparedness for earthquakes, hazardous materials, pandemic flu, and winter weather. To participate in the *America's PrepareAthon!* National Day of Action or to receive updates via a series of webinars and Google hangouts in April, please reach out to Rachel Sears (rachel.sears@fema.dhs.gov), email prepareathon@fema.dhs.gov, or visit its new website at: <http://www.ready.gov/prepare>.

Applegate reviewed that last month NIST announced its series of upcoming workshops on the development of a disaster resilience framework as called for in the President's Climate Action Plan. The first workshop, titled "Developing a Community-Centered Approach to Disaster Resilience," is scheduled to take place on Monday, April 7, 2014, at 8:00 a.m. at NIST's main campus in Gaithersburg, Maryland. The workshop registration fee is \$55 and is open to all interested parties. As space is limited, register early by visiting: http://www.nist.gov/el/building_materials/resilience/disreswksp.cfm. Please contact Steve Cauffman (stephen.cauffman@nist.gov) to find out more information.

Applegate reminded members that the SDR Wildland Fire Science and Technology Task Force will hold an interagency organizational kickoff meeting on Thursday, April 10, 2014, from 9:30 a.m. to 12:30 p.m. in the White House Conference Center Lincoln Room to review its objectives and map out a plan forward. Applegate added that a meeting announcement email will go out in the coming days to the group's designated agency representatives. Several agencies have already expressed interest in participating in the task force – including USGS, DOI Office of Wildland Fire, USFS, NIST, DHS S&T, EPA, NASA, NOAA, FEMA/U.S. Fire Administration, NSF, DOD, and others, in addition to various White House entities. Applegate underscored that if agencies have not done so already, please email the SDR Secretariat (bret.schothorst@mantech.com) if interested in participating on the Task Force.

Applegate also mentioned a possible collaborative opportunity with two other NSTC bodies – the Subcommittee on Ocean Science and Technology (SOST) and the U.S. Global Change Research Program (USGCRP) – on an effort led by SOST to develop a framework to address how Federal agencies could implement a rapid and coordinated response to disasters and hazards across the weather/climate continuum. More information on this opportunity will follow at an upcoming SDR meeting.

III. Briefing: Next Earth Observations Assessment

Applegate introduced Timothy Stryker (OSTP) and his colleague Jason Gallo from the Science and Technology Policy Institute (STPI) for a briefing on the next National Earth Observations Portfolio Assessment led by the U.S. Group on Earth Observations (USGEO). Stryker is Director of the USGEO Program within the White House Office of Science and Technology Policy (OSTP) and the NSTC.

Gallo stated that the new National Earth Observations Portfolio Assessment follows the initial National Civil Earth Observations Assessment completed in September 2012 but steps back from immediate questions of hardware procurement investments to create a policy, assessment, and planning framework focused on the broader, multi-purpose benefit of Earth observations for society. Gallo added that the new assessment will include the development of a *National Plan for Civil Earth Observations*, which will map out priority Federal government activities to manage Earth observations systems through routine assessments, improved data management, and coordinated planning.

According to the *National Strategy for Civil Earth Observations* released in April 2013, the next assessment will document, for internal Federal use, the baseline current portfolio and define an integrated portfolio of observing systems, networks, and platforms that will provide optimal continuity, fulfillment, and advancement of required measurements over the 10-year planning period. All of these activities will aim to enable stable, continuous, and coordinated Earth-observing capabilities and reference measurements in 12 societal benefit areas (SBA), including disasters:

- Agriculture & Forestry
- Biodiversity
- Climate
- Disasters
- Ecosystems
- Energy & Earth Resources
- Human Health
- Ocean & Coastal Resources
- Space Weather
- Transportation
- Water Resources
- Weather

Gallo noted that this second Earth observations assessment will leverage the methodology and incorporate lessons learned from the first assessment, including its “value chain” approach that provides traceability of observations collected to societal benefit delivered with research needs integrated within the value chain. It will also incorporate its “impact assessment” method applied at each level of the value chain, which is a standardized performance scale – based on “swing weighted” results in a standardized product from each team – for facilitating integration that evaluates both the relative criticality of an individual input and the overall performance of that input. Stryker added that this next assessment will also attempt to provide equal evaluation guidance to each SBA and devote more time and attention to the research needs and components of the individual SBA sub-areas.

In reference to the assessment’s scope, Gallo defined some terms of use for the project. The term observing system refers to one or more sensing elements that directly or indirectly collect observations of the Earth, measure environmental parameters, or survey biological or other Earth resources (land surface, biosphere, solid Earth, atmosphere, and oceans). Sensing elements may be deployed as individual sensors or in constellations, and may include instrumentation or human elements. Observing system platforms may be mobile or fixed and are space-based, airborne, terrestrial, freshwater, or marine-based. Observing systems increasingly consist of integrated platforms that support remotely sensed, *in situ*, and human observations. According to Gallo, the assessment includes all unclassified systems relied upon regardless of owner (U.S. government, foreign systems, state and local government, private sector, commercial, etc.) but excludes Intelligence Community-based classified systems.

Gallo outlined that at each level of the value chain, subject matter experts (SME) are asked to do two things regarding the assessment of performance and criticality of Earth observing systems:

- 1) Assess the overall performance of each of the elements using a standard performance satisfaction scale of 1 (no capability – provides no value) to 100 (ideal – meets all requirements and exceeds some); and
- 2) Assess the impact on each element if inputs are systematically removed (criticality) using the simplified swing weighting technique.

The USGEO Subcommittee’s Assessment Working Group (AWG) will provide guidance to help the 12 societal benefit areas structure sub-areas and key objectives in a standardized manner to ensure adequate coverage, address gaps or areas of overlap, and improve agency representation and engagement. Gallo added that the AWG will ensure broad SME coverage with the scientific knowledge and agency expertise to allow a more even representation and research focus throughout the SBAs. It will also provide answers to questions like how observations support the generation of fundamental knowledge and how observations support the development of new tools and techniques.

Please contact Stryker (Timothy.S.Stryker@ostp.eop.gov) if your agency would like to become engaged in the USGEO National Earth Observations Portfolio Assessment process.

IV. Briefing: Washington State Landslide

Applegate and Chris Strager (NOAA) of the National Weather Service provided a short briefing on the recent landslide that occurred in the state of Washington near the town of Oso in Snohomish County – one of the deadliest in U.S. history and exceptional in its speed and runout distance, which were major contributing factors to the loss of life. Applegate noted that the landslide had officially been named SR530 after Washington State Route 530, which is a main thoroughfare near the disaster site.

According to Applegate’s briefing, landslides are generally very difficult to predict in their timing, size, and distance of debris runout, all factors which were crucial to this instance. Applegate stated that SR530 was a very mobile landslide and had a massive flow volume, which had a large impact on the Stillaguamish River near Arlington, Washington and the surrounding area. The landslide was large enough to engulf a rural, unincorporated neighborhood known as Steelhead Haven and partially block the local river with mud and debris, covering a total area of roughly one square mile. Applegate mentioned that most landslides larger in size than SR530 are triggered by geologic hazards such as volcanic eruptions.

Contrary to some reports from local and national news sources, natural seismic activity and human logging practices most likely were not a factor in triggering the event. Applegate noted that the nearest earthquake during the landslide time period was too small (magnitude 1.1) and far away (several kilometers) to cause a disaster of this size and scope, and he added that the removal of the shallow conifer root system by way of logging would likely have little to no effect on a landslide that was so deep-seeded (200 feet). Strager highlighted that recent heavy precipitation events may have played a significant role, however, as rainfall in the past 30 to 60 days in Snohomish County had been 150 to 200 percent above normal – leading to the second-wettest March on record for the area. Applegate added that another factor contributing to the landslide might have been the unstable geology of the area, which rests upon unconsolidated deposits of sand, gravel, silt, and clay from previous landslides that are easily shifted.

Applegate noted in his briefing that as one of its primary objectives, immediate Federal S&T efforts for response contributed to the safety of rescue personnel digging through the debris pile by providing landslide scarp and head data gathered from sensor-loaded portable collection stations known as “spiders.” Applegate stated that the information was sent in real-time to the FEMA Joint Field Office and the USGS Cascades Volcano Observatory and Geologic Hazards Science Center for analysis, which was very useful in ensuring the protection of first responders on the scene. He added that an NSF-funded Geotechnical Rapid Response Team consisting of USGS, NOAA, and USACE researchers and

Washington state geologists were looking more closely at the landslide's characteristics and various slide deposits in the immediate aftermath of the disaster. Applegate underscored that with regards to the Stillaguamish River that was dammed from landslide debris, one focus area has been on providing real-time data to NOAA on the river's hydrology via stream gauges and buoys to assess the risks of flooding upstream and downstream. USGS was also utilizing sonar surveys to gauge the river and nearby lake depth up against the debris dam and taking bathymetry measurements to see if debris material would stay put or continue to be released down the river. In addition, the Washington Department of Transportation deployed LiDAR remote sensing technology right after the event, and USGS scientists were able to make elevation difference maps from the data for search and rescue missions. Applegate closed by stating that due to its unique traits, the SR530 landslide will be an important data point to study the phenomenon and glean much needed information about these types of events going forward.

In response to a question from Frank Lindsay (NASA) regarding if the disaster will change land-use policies in the area, Applegate stated that one of the great challenges of this landslide will be to implement a progressive approach to land-use practices in the affected region. Chris Clavin (STPI) wondered which Federal agencies were interfacing most frequently with state officials on the ground, and Applegate replied by stating that a number of Federal agencies have been providing technical support for the state and local emergency managers leading search efforts. FEMA has become heavily involved in recent weeks in addition to the core science agencies mentioned earlier like USGS, NOAA, USACE, and EPA. More information on the USGS role in the disaster can be found at: http://www.usgs.gov/blogs/features/usgs_top_story/landslide-in-washington-state/?from=title.

V. Presentation: Red Cross Domestic Disaster Operations

In support of SDR's role as the U.S. National Platform for the UN International Strategy for Disaster Reduction (ISDR), the SDR's International Working Group has been engaging with stakeholders and working with the State Department to develop U.S. positions as UNISDR develops a successor strategy to the Hyogo Framework for Action (HFA) – known as HFA2 – to be launched in 2015. The second half of the April meeting was an opportunity for all SDR agencies to hear perspectives on how both domestically- and globally-focused, U.S.-based NGOs view the HFA and are seeking to influence its successor. For the first presentation of this discussion, Applegate introduced Trevor Riggen, who is Vice President of Disaster Operations at the American Red Cross. In this role, Riggen is responsible for planning, implementing and managing scalable relief operations to meet the direct needs of disaster clients for all domestic events.

To open his briefing, Riggen highlighted some of his organization's recent domestic disaster response and recovery activities. The American Red Cross operates primarily in the preparedness, response, and recovery mission areas and serves as the co-lead for mass care alongside FEMA in the National Response Framework. Riggen stated that the American Red Cross plays a supportive role in most other emergency support functions and is congressional chartered to provide emergency services nationwide under the oversight of Congress. He added that the American Red Cross does not receive any funding from the government, so it can remain neutral in its operations. According to Riggen, the American Red Cross responds to roughly 70,000 events a year – most of which are single- and multi-family residential fires – in over 2,000 locations in the U.S. and its territories.

Riggen noted that the American Red Cross had recently undergone a process realignment to emphasize its role as a primary convener to mobilize and organize communities and their volunteers. He added that while undergoing its reconfiguration, the American Red Cross utilized the HFA as a resource when determining its newly aligned strategic goals and priorities for action. As part of this reengineering, Riggen highlighted the importance of a local workforce and spontaneous volunteers in all phases of disasters and the importance of sharing training, technology, and expertise across agencies and with the general public to build community resilience. As an example of utilizing local resources during a

disaster, Riggen underlined that during Hurricane Sandy in October 2012 the American Red Cross deployed 17,000 volunteers to the New York-New Jersey region, of which 60 percent were local.

Regarding the role of technology in his organization's objective to provide early warnings for disasters, Riggen noted that the first public social media monitoring service and digital operations center outside of a corporation was created at the American Red Cross to track all open source social media for disasters. This capability allows for a team of digital volunteers to reach the public with "just in time" messaging during disasters to save lives and provide preparedness through mobile apps and real-time access tools. Citing the historic tornado in Moore, Oklahoma in May 2013, Riggen highlighted that its app messaging alerts were able to notify several thousands of residents in the area of the impending storm. Sezin Tokar (USAID) added that Red Cross cyclone and flooding mobile apps are also being used internationally in Indonesia, Vietnam, the Philippines, and other countries around the world. Riggen was encouraged by this, stating that up until recently other countries didn't see the breadth of disasters that the U.S. faces annually. He underscored that as these various disasters are striking more frequently and in a greater number of locations worldwide, countries are now beginning to partner with their domestic counterparts more often to share emergency management best practices.

To close his presentation, Riggen noted that the organization also renewed its focus on interagency coordination in several areas after the restructuring, including the: 1) National Mass Care Strategy – a common strategy developed across core agencies for service delivery; 2) Coordinated Assistance Network – a single case management platform designed to increase survivor resilience; and 3) Integrated Recovery Program – the investment in local resources and expertise through strategic grant making as part of a larger recovery effort.

VI. Presentation: InterAction Priorities for HFA2

For the second briefing in the discussion, Applegate introduced Abby Bruell of InterAction and Jane Katz of Habitat for Humanity International, who briefed the Subcommittee on their U.S.-based, internationally-facing humanitarian organization coalition's priorities for the UNISDR post-2015 disaster risk reduction framework. Bruell is a Senior Program Associate for Disaster Response in the Humanitarian Policy & Practice Division of InterAction, while Katz is Director of International Affairs and Programs at Habitat for Humanity International's Washington, D.C.-based Government Relations and Advocacy Office.

To open their presentation, Bruell provided some background information on InterAction, stating that the organization is the largest coalition of U.S.-based international NGOs with 190 members working in every developing country. Its members are of varying sizes, both faith-based and secular, and focus on the world's most poor and vulnerable populations. Through donations from the public, private foundations, and other entities, funding support for the efforts of InterAction members total more than \$13 billion a year, according to 2009 estimates. InterAction's official mission statement is to "eliminate extreme poverty, uphold human rights, safeguard a sustainable planet and ensure human dignity for poor and vulnerable populations worldwide by elevating and advancing the goals of the U.S.-based international nonprofit community."

Bruell and Katz then highlighted the role of InterAction's Disaster Risk Reduction (DRR) Working Group in promoting civil society's role in managing its own DRR programs and in forming policy recommendations for the post-2015 DRR framework. Its main points for HFA2 were to: 1) address the underlying causes of people's vulnerability to disasters by strengthening local governance capacities and addressing structural inequalities and power imbalances; 2) recognize the impact of everyday disasters on lives, livelihoods, and assets through the establishment of national loss databases; and 3) prioritize the most at risk, poorest, and marginalized people by developing tools and methodologies to facilitate the engagement of vulnerable populations in decision-making and planning. Regarding the establishment of national loss databases for disasters, Keely Maxwell (EPA) noted some of the difficulties that will exist in

measuring the value of intangible elements that are often essential to the informal economy in which many people operate in developing countries.

In closing, Bruell and Katz stated that InterAction and its DRR Working Group will continue to work with its global consortia counterparts, participate in consultations and events like the upcoming World Urban Forum, and develop its strategic plan both from a policy and programmatic standpoint as the UNISDR moves closer to cementing the HFA2 for its next term. Regarding engagement with the U.S. National Platform, Applegate and Tokar added that the SDR's International Working Group will continue to outreach with InterAction and other NGOs on HFA2, as well as work with the State Department to develop U.S. positions and inform interagency deliberations leading up to the Regional Platform of the Americas meeting in Guayaquil, Ecuador in May 2014 and the 3rd World Conference for Disaster Risk Reduction in Sendai, Japan in March 2015.

VII. Adjournment

Applegate adjourned the SDR April meeting at 11:55 a.m.

VIII. Future Meetings

Upcoming 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:

2014

- ✓ Thursday, May 1
- ✓ Thursday, June 5
- ✓ Thursday, July 10
- ✓ Thursday, August 7
- ✓ Thursday, September 4
- ✓ Thursday, October 2
- ✓ Thursday, November 6
- ✓ Thursday, December 4

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).

X. 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
Dennis Wenger	Co-chair	703-292-8606	dwenger@nsf.gov
Tamara Dickinson	OSTP Liaison	202-456-6105	tdickinson@ostp.eop.gov

Secretariat

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

XI. Summary of April Actions

Action	Lead	By When
Contact the SDR Secretariat (bret.schothorst@mantech.com), copying SDR Co-chair David Applegate (applegate@usgs.gov) and OSTP Liaison Tammy Dickinson (Tamara_L_Dickinson@ostp.eop.gov), to participate in the SDR Wildland Fire S&T Task Force.	SDR Members	ASAP
Reach out to Rachel Sears (rachel.sears@fema.dhs.gov) to participate in FEMA’s America’s PrepareAthon! National Day of Action on April 30, 2014. To receive updates on the initiative via a series of webinars and Google hangouts throughout the month of April, visit the initiative’s website: http://www.ready.gov/prepare .	SDR Members and Federal Colleagues	ASAP
Contact Timothy Stryker (Timothy_S_Stryker@ostp.eop.gov) to become engaged in the next USGEO National Earth Observations Portfolio Assessment process.	SDR Members	ASAP
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
Email SDR Secretariat (bret.schothorst@mantech.com) and OSTP Liaison Tammy Dickinson (Tamara_L_Dickinson@ostp.eop.gov) if willing to pilot an assessment of the progress of the short-, mid-, and long-term goals outlined in the SDR <i>Grand Challenges for Disaster Reduction</i> hazard implementation plans.	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