

Meeting Minutes of the Subcommittee on Disaster Reduction

5 April 2012, 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*
Daniel Lechefsky
CDC Mark Keim (T)
DHS *Bruce Davis*
DHS/FEMA Sandra Knight
DHS/USCG *Austin Gould*
DOD *Al Johnson*
DOT *Sheila Duwadi*
EOP/OMB *Grace Hu*
EOP/OSTP *Tamara Dickinson*
EPA Peter Jutro
Stephen Clark

FERC Pamela Romano (T)
HUD *Dana Bres*
NASA *Craig Dobson*
NGA *Paul Lewis*
NGB *TBD*
NIH *Allen Dearry*
NIST *William Grosshandler*
NOAA Margaret Davidson (T)
Laura Furgione
NPS Marcy Rockman
NSF Dennis Wenger
OPHS Estella Jones

State *Nicholas Suntzeff*
Fernando Echavarria
USACE *Steven Cary*
Dimitra Syriopoulou (T)
USAID Sezin Tokar
USDA *TBD*
USFS *Elizabeth Reinhardt*
Carlos Rodriguez-Franco
USGS David Applegate
USNRC Brian Sheron

Other Attendees

DHS/FEMA Rachel Sears
DOT/FWHA Phil Yen
EPA Paul Kudarauskas
NAS Lauren Alexander
Augustine
NASA Michael Goodman (T)

NGA Christy Crosiar
NIST Marc Levitan
NOAA Nell Codner (T)
Michelle Hawkins
USACE Andrew Bruzewicz
USDA Ann Bartuska

USGS John Eichelberger
Eliot Christian
Liz Lemersal (T)
USNRC Brett Rini
Secretariat Bret Schothorst
Barbara Haines-Parmele

Agenda

10:00 Welcome and Introductions
10:05 Presentation: USGCRP Climate Change Adaptation Efforts
10:45 Presentation: International Register of Alerting Authorities
11:25 Briefing on NAS Extreme Events Post-Workshop Meetings
11:45 Report from the Co-chairs and Approval of Minutes
11:55 Close and Next Actions

Handouts

- Agenda
- Draft White Paper by the SDR, USGCRP, and CEQ on DRR and CCA
- Draft March Meeting Minutes
- Invitation to Wilson Center Workshop on April 9th

I. Welcome and Introductions

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

II. Presentation: USGCRP Climate Change Adaptation Efforts

Applegate introduced Ann Bartuska (USDA), who serves as Deputy Under Secretary for USDA's Research, Education, and Economics mission area. Bartuska also co-chairs the Sustainability Roundtable of the National Academy of Sciences (NAS) and the Ecological Systems Subcommittee of the NSTC Committee on Environment, Natural Resources, and Sustainability. During her presentation to the SDR, Bartuska briefly highlighted background information on the history, vision, and mission of U.S. Global Change Research Program (USGCRP) and discussed the objectives and challenges of using science to inform adaptation and mitigation decisions regarding weather extremes and climate variability and change. She also covered the goals of USGCRP's Adaptation Science Workgroup, which aims to articulate science, information, and decision needs through workshops, reports, and exercises in connecting science and adaptation planning.

USGCRP began as a Presidential Initiative in 1989 and was mandated by the U.S. Congress in 1990 through the Global Change Research Act (GCRA). According to the legislation, the GCRA was enacted "to provide for the development and coordination of a comprehensive and integrated United States Research Program which will assist the Nation and the world to understand, assess, predict, and respond to human-induced and natural processes of global change." Bartuska highlighted that USGCRP's mission is derived from this mandate and focused around four main objectives: 1) coordinating Federal research to better understand and prepare the nation for global change; 2) prioritizing and supporting cutting edge scientific work in global change; 3) assessing the state of scientific knowledge and the Nation's readiness to respond to global change; and 4) communicating research findings to inform, educate, and engage the global community.

Bartuska noted that, as a requirement of the GCRA, USGCRP is obligated to produce a National Global Change Research Plan every 10 years outlining the goals of the program which most effectively advance scientific understanding for global change and provide usable information on which to base policy decisions relation to global change. The current USGCRP Decadal Strategic Plan outlines how the program will advance fundamental, use-inspired research to address the present and future challenges of climate and global change. The Strategic Plan also provides direction for USGCRP over the next ten years, guidance for USGCRP to be an integrated end-to-end program from fundamental global change research to societal decision support, and a link for the Program's vision and mission to its goals and outcomes. The four critical goals of the current USGCRP Strategic Plan as highlighted by Bartuska are to: 1) advance science; 2) inform decisions; 3) conduct sustained assessments; and 4) communicate and educate. Within these goals, one of the main objectives underscored by Bartuska's presentation was the challenge of using science to inform adaptation and mitigation decisions regarding weather extremes and climate variability and change. According to Bartuska, USGCRP aims to develop the tools and scientific basis to enable an integrated system of global change information – informed by sustained, relevant, and timely data – to support decision making through the following:

- Assess and address decision maker needs and science requirements;
- Identify and communicate relevant information;
- Develop new information exchange approaches;
- Support public and private sector responses to global change;
- Continually improve observing systems, data stewardship, and global change monitoring;
- Translate global change predictions and projections; and
- Provide timely, relevant, and integrated global change information and decision support.

Also discussed in Bartuska's briefing was USGCRP's Adaptation Science Workgroup. The workgroup was established in 2010 in response to the Interagency Climate Change Adaptation Task Force convened by the Federal government and followed by the signing of Presidential Executive Order 13514 in 2009. Bartuska highlighted that the mission of USGCRP's Adaptation Science Workgroup is to ensure that the Federal government's science enterprise informs and empowers adaptation decisions at a range of scales for a diversity of users by the articulation of science, information, and decision needs through workshops, reports, and exercises in connecting science and adaptation planning. Within this mission statement, the first main goal of the workgroup is to advance social, behavioral, and economic sciences by emphasizing the need to integrate the contributions of multidisciplinary scientists with research activities in the physical, chemical, and biological sciences. As part of this effort, in March 2012 USGCRP launched a Social Science Task Force with Federal government experts to identify the human drivers of global change, the determinants of vulnerability and resilience to global change impacts, and the research needs for decision support, including understanding decision context, frameworks, methods, and tools.

The second goal of the workgroup as stated by Bartuska is to integrate science into Federal agency adaptation plans by: working closely with the Agency Adaptation Workgroup established under the Interagency Climate Change Adaptation Task Force; holding workshops on science that support adaptation decisions in collaboration with CEQ; and conducting pilot efforts with GSA and NOAA to obtain the best available science to inform agency adaptation plans and implementation actions and to identify climate impacts and risks to assets. According to Bartuska, the third and final major goal of USGCRP's Adaptation Science Workgroup highlighted in her presentation is to evaluate the effectiveness of adaptation actions. This can be accomplished through: 1) identifying adaptation evaluation frameworks, measures, and metrics; 2) providing technical input to the 2013 National Climate Assessment; 3) facilitating conferences to identify approaches and information needs for assessing the effectiveness of and progress in adaptation; and 4) creating international partnerships to gain insight into adaptation evaluation efforts abroad.

Looking towards the future, Bartuska underscored three specific outlook priorities that will allow USGCRP to make progress in adaptation research:

- Priority Area #1: Advancing Science for Adaptation Decisions – Build cross-agency capabilities in the identification and advancement of knowledge needed to inform and support societal decisions and actions that enhance resiliency to climate variability and changes in patterns of extreme events.
- Priority Area #2: Providing Regional Science, Tools, and Services – Ensure that the Federal government's science enterprise implements an integrated, well-coordinated approach to providing critical information for adaptation decisions at the local and regional levels.
- Priority Area #3: Facilitate Collaborative Frameworks – Leverage existing collaborative science-management frameworks to advance interagency research on adaptive capacity, particularly tipping points and thresholds, for a diversity of management challenges.

Bartuska also covered a few areas of potential collaboration with USGCRP and the SDR, including the USGCRP Annual Priority Theme, the NAS Extreme Events Workshop, and the recent IPCC SREX Report. As part of this relationship, Applegate expressed interest in pursuing a joint meeting between the Subcommittee and USGCRP's Adaptation Science Workgroup. For further information, Bartuska stated that Emily Wasley (ewasley@usgcrp.gov) is the USGCRP National Coordination Office support staff member for the Adaptation Science Workgroup effort and is the point of contact for those SDR members interested in learning more about the initiative and collaborating on future projects. Moreover, SDR members are encouraged to visit the USGCRP website for additional resources: <http://www.globalchange.gov/what-we-do/adaptation-science>.

III. Presentation: International Register of Alerting Authorities

Applegate introduced Eliot Christian, who is a former staff member of USGS and the World Meteorological Organization (WMO). He is an advocate for promoting global, long-term, and open accessibility of data and information and was instrumental in developing all-hazards, all-media alerting based on the Common Alerting Protocol standard. Christian briefed the Subcommittee on the international Register of Alerting Authorities and addressed the register's background and key features, how entries are maintained, why it is necessary, and how U.S. alerting authorities are represented.

The Register of Alerting Authorities was developed for the WMO, which is a treaty-level, international organization for the United Nations focused on weather and climate currently comprised of 189 members (183 nations and 6 territories). WMO members are denoted on the register by a representative from the national meteorological or hydrological service within their country or territory. According to Christian, many of these organizations already have an operational responsibility to act as a national alerting authority for weather and natural hazard-related threats, which serves as a basis for coordinating and registering alerting authorities worldwide. Concerning the registration of authorities and the information contained in the alerts, Christian stated that the Register of Alerting Authorities follows an International Telecommunications Union (ITU) recommendation for direction on these issues. Based on ITU's guidance, each chronicled entry in the register indicates the category type of the alert message and the alerting area, with an optional text entry to describe the law or policy basis of the authority. The entry can also provide a URL linking to forecasts as well as other alert messages. Additionally, one of the responsibilities of maintaining the register is to promote the open sharing of information by providing an automated mechanism for users to be informed whenever changes are made. To facilitate this, subscribers of alert messages can link into a news feed to stay current with any real-time modifications.

As stated by Christian, the need for a coordinated register arises due to the shortcomings of other web-based services performing similar functions. For instance, aggregators of web alerts such as Google and other intermediaries like the news media often times lack the direct knowledge needed to distinguish an authoritative source of alert messages. Christian noted that this lack of understanding is becoming even more critical as alerting makes enhanced use of large public telecommunications networks. Because of their sheer size, such global networks need to encompass numerous information providers, and it becomes impossible to know the sources personally. In order to counter this unfamiliarity and any potential confusion, each register entry asserts that a specific source of an alert message is regarded by a WMO member as authoritative for a category of hazard over a particular area. As Christian's presentation highlighted, each register entry also provides distinctive information about an official alerting authority and gets an object identifier (OID) number that can be used for globally unique identifiers of alert messages. Christian explained that this means that anyone encountering an alert message with an OID, regardless of its language, can immediately determine which official alerting authority originated the alert. Nevertheless, each assertion stands on its own merit, and it is possible for different members to make conflicting assertions. By way of example, Christian highlighted that the 2011 earthquake in Japan was reported initially by USGS as magnitude 8.9 and by the Japan Meteorological Agency (JMA) as magnitude 8.8. Although USGS and JMA later agreed on a revised magnitude 9.0, both agencies are valid authorities for earthquake hazards, and, in the case of earthquakes in Japan, they both post official alerts for the same area.

At present, Christian stated that there is only one designated register entry for the U.S. – which is managed by NWS – in the Register of Alerting Authorities. The U.S. alerting authority entry reads, in part, “The National Weather Service...provides, in coordination with the Federal Emergency Management Agency, public dissemination of critical pre-event and post-event information of all hazards, including natural disasters and terrorist events.” In contrast to this sole register entry, the U.S. has many official alerting authorities at the national level for various hazards: NOAA for weather and floods; USGS for earthquakes, volcanoes, and landslides; EPA for oil spills and air pollution; CDC for epidemics; USDA

for diseases of domesticated animals; and USGS for diseases of wild animals. This discrepancy in the number of register entries and the number of official alerting authorities was raised as a subject for discussion among the SDR member agencies with regards to warning authority for various hazards.

Applegate indicated that he would explore this issue in more depth with the SDR's OSTP Liaison and circle back with Christian on any potential next steps. For more information on this international alerting initiative, the WMO's Register of Alerting Authorities website can be found at: <http://www.wmo.int/alertingorg>.

IV. After-Action Report from NAS Extreme Events Workshop

Applegate introduced Lauren Alexander Augustine (NAS), who serves as the Director of the Disasters Roundtable at the National Academies in the Division of Earth and Life Studies and is Country Director in the Academies' African Science Academy Development Initiative. Alexander Augustine updated the SDR on the recent follow-up activities of the NAS with regards to their Managing Extreme Events summit held last September. In particular, she briefed the group on a workshop held earlier in the week to discuss the development of a North American risk model that will use flooding for the initial pilot hazard. Alexander Augustine also highlighted several possible short-term objectives surrounding the implementation of the risk model that have arisen from recent meetings, including feasibility studies, white papers, and data-sharing opportunities, as well as the long-term goal of establishing a platform to engage Federal agencies with the private sector and the insurance industry on this initiative.

V. Report from the Co-Chairs and Approval of Minutes

The March meeting minutes were approved with no changes, and Applegate announced that the SDR's next meeting will take place on May 3rd.

Stemming from the presentations and subsequent panel discussion at the February SDR meeting, Applegate mentioned that Lea Shanley from the Woodrow Wilson Center for International Scholars would like to host a follow-up workshop during the upcoming September timeframe on the use of social media, crowdsourcing, and related technologies for the disaster management process. The proposed workshop would bring together Federal agency staff, practitioners, and members of the digital volunteer community to explore the current and potential future uses of these technologies and methods by Federal agencies for disaster management, as well as to identify: 1) the key policy and legal challenges (e.g., privacy and liability); 2) potential risk management actions (e.g., cybersecurity); and 3) mechanisms for coordination between the Federal agencies and digital volunteer communities (e.g., CrisisMappers, Open Street Map, etc.). SDR members who would like to contribute to the planning process – either by co-sponsoring the workshop, volunteering time, or suggesting panel speakers and topics of discussion for the event – should contact the SDR Secretariat (bret.schothorst@mantech.com).

Applegate highlighted that the National Council for Science and the Environment (NCSE) has started the planning process for its next annual meeting, which will be held in January 2013 and focused on environmental disaster forecasting, preparedness, and resilience. SDR members who would like to get involved in the NCSE planning process by proposing conference themes, panel sessions, and keynote speaker ideas should send their suggestions to the SDR Secretariat (bret.schothorst@mantech.com).

Dennis Wenger (NSF) announced that the Subcommittee's International Working Group (IWG) meets monthly at 1:00 p.m. in the White House Conference Center's Lincoln Room following the SDR meeting. Wenger mentioned that the working group's final side event proposal – focused on disaster risk reduction (DRR) and chiefly coordinated by Fernando Echavarría (State) and Allison Reed (NOAA) – for the Rio +20 UN Conference U.S. Center was submitted to the Department of State organizers for the event. The proposal, titled "Disaster Risk Reduction: Tools for Sustainable Development," suggests a 90-minute panel discussion highlighting U.S. government and non-government activities on DRR. The document

includes examples and activities from many IWG member agencies, including: NOAA, NWS, NASA, USGS, FEMA, NSF, NDU, and USAID. Wenger also reported that the IWG will resume dialogue on the SDR's role as the U.S. National Platform for the ISDR at the group's April meeting.

Sezin Tokar (USAID) noted that the final version of the IPCC Special Report on Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation can now be downloaded via the following link: <http://ipcc-wg2.gov/SREX/>. The summary for policymakers was already available on that same site.

VI. Adjournment

The meeting adjourned at 11:54 a.m.

VII. Future Meetings

SDR meetings 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.

2012

Thursday, January 5	Thursday, May 3	Thursday, September 6
Thursday, February 2	Thursday, June 7	Thursday, October 4
Thursday, March 1	*Thursday, July 12	Thursday, November 1
Thursday, April 5	**Thursday, August 2	Thursday, December 6

*We are shifting the July meeting to the second Thursday of the month to avoid proximity to the July 4th holiday.

**Subject to cancellation.

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 Bret Schothorst (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
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

X. Summary of April Actions

Action	Lead	By When
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Action	Lead	By When
Contact the Secretariat (bret.schothorst@mantech.com) to contribute to the planning process of an upcoming Wilson Center workshop in September focused on the use of social media, crowdsourcing, and related technologies for the disaster management process, either by co-sponsoring the workshop, volunteering time, or suggesting panel speakers and topics of discussion for the event.	SDR Members and Federal Colleagues	ASAP
Send suggestions for conference themes, panel sessions, and keynote speakers to the SDR Secretariat (bret.schothorst@mantech.com) regarding the National Council for Science and the Environment's next annual meeting, which will be held in January 2013 and focused on environmental disaster forecasting, preparedness, and resilience.	SDR Members and Federal Colleagues	ASAP
Send nominations of individuals to serve as SMEs for specific key objectives of the disasters SBA and provide an inventory of your agency's observing assets against the cross-hazards listed in the circulated spreadsheet to David Helms and Pamela Taylor of NOAA (david.helms@noaa.gov and pamela.taylor@noaa.gov).	SDR Members and Federal Colleagues	ASAP
Send Tammy Dickinson (tdickinson@ostp.eop.gov) a brief write-up highlighting any major changes in hazard-related, disaster reduction S&T spending for your agency in the President's FY 2013 budget.	SDR Members	ASAP
Contact Fernando Echavarria (echavarriafr@state.gov) to engage on the EU-U.S. Dialogue on Space Cooperation.	SDR Members and Federal Colleagues	ASAP
Please consider supporting the work of the SDR and its Secretariat through a contribution from your agency. Let Dave (aplegate@usgs.gov) know if you need an agency-specific request letter.	SDR Members	Standing
Contact Tammy Dickinson (tdickinson@ostp.eop.gov) to pass along issues, concerns, and information from your agency to the White House Office of Science and Technology Policy.	SDR Members	Standing
Contact Tammy Dickinson (tdickinson@ostp.eop.gov) if it would be helpful for OSTP to issue a letter to your Department requesting new (or re-affirmed) designation of representatives. Ideas for other entities that should be represented on the SDR are also welcome.	SDR Members	Standing
Contact 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 the Secretariat (bret.schothorst@mantech.com) if you are interested in participating in the SDR Coastal Inundation Working Group.	SDR Members and Federal Colleagues	Standing

Action	Lead	By When
Contact the Secretariat (bret.schothorst@mantech.com) if you are interested in participating in a task force that will be drafting a lessons learned report covering the earthquakes and tsunami in Japan, New Zealand, Chile, and Haiti.	SDR Members and Federal Colleagues	Standing
Send Sezin Tokar (stokar@usaid.gov) your ".gov" e-mail address to receive USG-only updates from USAID on global disaster response activities.	SDR Members and Federal Colleagues	Standing
Contact Bret (bret.schothorst@mantech.com) to receive copies of the Grand Challenges for Disaster Reduction Implementation Plan packets or CD.	SDR Members	Standing