Meeting Minutes of the Subcommittee on Disaster Reduction

12 July 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*
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
USAID Sezin Tokar
USDA *TBD*
USFS Elizabeth Reinhardt
Carlos Rodriguez-Franco
USGS David Applegate
USNRC *Jennifer Uhle*

Other Attendees

DHS Michael Ciccarello
Mary Ellen Hynes (T)
DHS/FEMA Cynthia Palmer
Rachel Sears
EPA Brendan Doyle
NASA Michael Goodman (T)
NIST Marc Levitan
NOAA Nell Codner
Maria Honeycutt
Chris Strager
Jacob Sutherlun
NPS Gary Machlis
NSF Robert O'Connor
USAID Rhonda Davis-Stewart
USNRC Brett Rini
University of South Carolina
Michael Hodgson
Secretariat Bret Schothorst
Barbara Haines-Parmele

Agenda

10:00 Welcome and Introductions
10:05 Presentation: DHS S&T and the University of South Carolina Survey on Use of Geospatial Data for Emergency Response
10:30 Presentation: DOI Strategic Sciences Group Focused on Environmental Crisis Efforts
11:15 Briefing: FEMA's Mitigation Federal Interagency Operation Plan
11:40 Report from the Co-chairs and Approval of Minutes
11:45 Report from the OSTP Liaison
11:55 Close and Next Actions

Handouts

- July Meeting Agenda
- Briefing Document on DOI Strategic Sciences Group
- Draft June Meeting Minutes
- National Resilience Coalition Handout
- Executive Order on the "Assignment of National Security and Emergency Preparedness Communications Functions"

I. Welcome and Introductions

Subcommittee on Disaster Reduction (SDR) Co-chair David Applegate (USGS) called the meeting to order at 10:03 a.m., and participants introduced themselves.

II. Presentation: DHS S&T and the University of South Carolina Survey on Use of Geospatial Data for Emergency Response

Applegate introduced Bruce Davis (DHS S&T), who is a Senior Program Manager with the Infrastructure Protection and Disaster Management Division of the DHS S&T Directorate and is DHS's designated representative to the SDR. Davis, along with Professor Michael Hodgson of the University of South Carolina, briefed the SDR on a recently completed survey by their organizations of all 50 states and over 400 counties on the use of geospatial and remote sensing data for disaster response.

The survey – which was a follow-up to a study originally conducted by Davis and his research team in 2005 of state emergency operations centers – aimed to understand county- and state-level desire for and use of geospatial information for emergency response and to determine if the use of geospatial information is increasing as a way local emergency managers control disaster incidences. The following key research questions were asked as part of the survey:

- Are counties and states aware of and expect to use federally-supplied data streams?
- Do counties and states receive remote sensing data from other sources?
- When is remotely sensed data too late to be useful?
- What is the priority baseline data layer needed (collected prior to a disaster) and where do counties and states obtain such data?
- Do counties and states have geographic information systems and remote sensing staff?
- Are counties and states using emerging technologies?

According to Davis and Hodgson, the researchers received survey responses from 475 of the 2,485 counties contacted (19 percent reply rate) and 50 of the 50 states contacted (100 percent reply rate). From those replies, they were able to establish the following information regarding county and state use of geospatial data for emergency response:

1) The awareness and expectation levels for both counties and states of the availability of federally-supplied disaster data streams (DHS/FEMA, the Homeland Security Information Network (HSIN), NASA, NOAA, and the Ramona Geographic Information System (GIS) Inventory) were moderately low.
2) High percentages of counties and states still have a strong reliance on ground surveys – or "boots on the ground" – as their primary means of data collection during an emergency.
3) Data exchanges with other agencies as well as aerial and satellite imagery and flyovers are much more common as a means of data collection for states than for counties, likely due to the larger geographical area that needs to be covered.
4) Other sources of data for counties and states include: mobile GIS collection, free internet downloads, free commercial providers, crowd sourcing volunteers, and data purchases.
5) The value of providing remote sensing-derived information during disaster response decreases as the lag time increases of when data is provided after the event, demonstrating that information availability is critical in the immediate days following a disaster.
6) The three types of baseline geospatial data (pre-event) that have the highest priority to have high-quality information in during the response and recovery phases following a disaster are: critical infrastructure; communications networks; and aerial imagery.
7) The three types of baseline geospatial data (pre-event) that have the lowest priority to have high-quality information in during the response and recovery phases following a disaster are: land use of land cover; elevation; and building and parcel characteristics.

8) The three types of impact geospatial data (post-event) that have the highest priority to have high-quality information in during the response and recovery phases following a disaster are: critical infrastructure; disaster extent; and communication network damage.
9) Both counties and states have relatively low numbers of staff responsible for working with GIS and GIS-based tools.
10) Emerging technologies that counties and states would like to use in the future include crowd sourced data, social networking, mobile data collection and transmission, methods for distributing maps and data, and free and open source software and data.

Additional findings from the survey are in the process of being complied into a final report, and once it has been finalized, will be made available to the SDR agencies. If SDR members have questions on the study or need further analysis of the results to utilize within your department or agency in the interim, please reach out to Davis (bruce.davis@hq.dhs.gov).

III. Presentation: DOI Strategic Sciences Group Focused on Environmental Crisis Efforts

Applegate introduced Gary Machlis (NPS), who serves as the first-ever Science Advisor to the Director of NPS and is Co-Leader of the DOI Strategic Sciences Group (SSG) along with Applegate. Machlis briefed the SDR on the DOI SSG, which is focused on informing environmental crisis response and recovery through strategic science and technology analysis and interdisciplinary scenario-building.

Citing previous instances of the utilization and deployment of science during crisis – including the Manhattan Project atomic weapon development program, the Apollo 13 space mission, and the Ebola virus epidemic in Zaire – Machlis noted that science during crisis is inherently different than science during normal times, specifically in the ways it's practiced and applied, the influences upon it, and its uses for advancing goals and achieving results. Machlis outlined that science conducted during crisis is more strategic in nature, rather than tactical and near-term outcome driven, and is instead focused on response and mid-term, long-term, and wide-impact recovery developments.

Formally established by DOI Secretarial Order in early 2012, the DOI SSG creates a standing capability based on the experience of an experimental working group formed in May 2010 that developed science-based scenarios for the coupled human and natural systems in the Gulf of Mexico during the Deepwater Horizon oil spill response. During the Deepwater Horizon oil spill, the SSG was deployed to: determine the parameters and anticipated effects of the spill by using scientific assessments; analyze the cascading chain of ecological and economical consequences that the disaster would have on the ecosystems of the region; and determine the certainty levels of potential outcomes for senior leaders to use as a basis for strategic, science-based policy decisions.

Through the development of the SSG, the DOI can expand the role of science during future environmental crises to provide additional, usable knowledge to decision makers for response, recovery, and restoration planning. According to Machlis, the DOI SSG prepares for scientific evaluation, measurement, and judgment during environmental crises by focusing the group on three key tasks: 1) interdisciplinary science assessments and scenarios; 2) actionable peer review; and 3) delivery of usable knowledge to decision makers. Depending on the environmental crisis at hand and the direction given by the Secretary of the DOI, the group's expertise can be deployed to assist Federal agencies, states, local governments, tribes, and other countries. Machlis also underscored the point that those responsible for the natural disaster management cycle can greatly benefit from additional attention paid to science during acute crises, as the group stands ready to conduct interdisciplinary science assessments during disasters caused by natural hazards such as wildfires, hurricanes, droughts, floods, earthquakes, and tornadoes. The ultimate goal of the SSG is to create capacity to deploy and respond to two major environmental crises simultaneously – such as a Gulf of Mexico oil spill and a California earthquake – and be operational in the field within 36 hours of the incidents to:

- Expand the role of science to provide additional usable knowledge to decision makers;
- Lead efforts to engage the external scientific community; and
- Increase preparation and the capacity to facilitate and address emergency response, recovery, restoration planning, and science needs.

In response to a question from Sandra Knight (FEMA) regarding the SSG's interest in partnering with Federal agencies for emergency red teaming table-top exercises, Machlis stated that the group has discussed including these types of war game activities into their annual operational plan and sees it as a valuable collaboration tool for the Federal agencies to learn, practice, and improve the environmental crisis response and recovery process.

Nell Codner (NOAA) and Brendan Doyle (EPA) inquired as to whether the group faced challenges communicating the level of uncertainty to policy makers or ensuring that a quality control mechanism existed to confirm their uncertainty assessments. Machlis stated that the SSG was able cross-check any unknown variables and information with their scientific peer group networks and through a team of graduate students researching scientific literature in order to validate their assessments. To avoid any miscommunications, SSG members were also able to break down the scientific information flowing to decision makers into understandable, direct terms that could be easily digested.

For more information on DOI SSG and how its lessons learned and peer-reviewed scenario analyses from the Deepwater Horizon oil spill response may be of benefit to your department of agency, please contact Machlis (gary_machlis@nps.gov) or view the group's after-action report online at: http://www.usgs.gov/oilspill/docs/SSWG_Progress_Report_09june10.pdf.

IV. Briefing: FEMA's Mitigation Federal Interagency Operation Plan

Applegate introduced Sandra Knight (FEMA), who serves as Deputy Associate Administrator for Mitigation at FEMA and is FEMA's designated representative to the SDR. Knight presented FEMA's Mitigation Federal Interagency Operation Plan (FIOP) under the National Mitigation Framework for Presidential Policy Directive 8 (PPD-8) and requested feedback from SDR members on its working draft. According to Knight, PPD-8 is a Presidential Policy Directive designed to strengthen U.S. security and resilience through the systematic preparation for threats that pose the greatest risk to the Nation, including acts of terrorism, cyber attacks, pandemics, and catastrophic natural disasters.

PPD-8 highlights that national preparedness is the shared responsibility of all levels of government, the private and non-profit sectors, and individual citizens and outlines the development of a National Preparedness Goal, National Preparedness System, and five National Planning Frameworks. Knight stated that the PPD-8 effort will be delivered in three ways: 1) develop a National Preparedness Goal that provides the capabilities required to prevent, protect against, mitigate, respond to, and recover from the threats and hazards that pose the greatest risk to the Nation with the core capabilities necessary for performance objectives to measure progress towards enhancing those capabilities; 2) assemble and create tools and guidance to develop a National Preparedness System to enable the Nation to meet its preparedness goal; and 3) develop National Planning Frameworks and FIOP initiatives that utilize the National Preparedness System to identify the roles of responsibilities of the departments and agencies with roles in the five mission areas of preparedness. Knight noted that the five principal mission areas that contribute to national preparedness are:

- Prevention – Preventing, avoiding, or stopping a threatened or an actual act of terrorism.
- Protection – The capabilities necessary to secure the homeland against acts of terrorism and manmade or natural disasters.
- Mitigation – The capabilities necessary to reduce loss of life and property by lessening the impact of disasters.

- Response – The capabilities necessary to save lives, protect property and the environment, and meet basic human needs after an incident has occurred.
- Recovery – The capabilities necessary to assist communities affected by an incident to recover effectively.

According to Knight, within the mission area of mitigation – the thread that permeates the fabric of national preparedness – there are seven core capabilities described within the National Preparedness Goal:

1) Threats and Hazard Identification – Identify the threats and hazards that occur in the geographic area; determine frequency and magnitude; and incorporate into analysis and planning processes so as to clearly understand the needs of a community or entity.
2) Risk and Disaster Resilience Assessment – Assess risk and disaster resilience so that decision makers, responders, and community members can take informed action to reduce their entity's risk and increase their resilience.
3) Planning – Conduct a systematic process engaging the whole community as appropriate in the development of executable strategic, operational, and/or community-based approaches to meet defined objectives.
4) Public Information and Warning – Develop approved hazard mitigation plans that address all relevant threats/hazards in accordance with the results of their risk assessment within all states and territories.
5) Community Resilience – Lead the integrated effort to recognize, understand, communicate, plan, and address risks so that the community can develop a set of actions to accomplish Mitigation and improve resilience.
6) Long-term Vulnerability Reduction – Build and sustain resilient systems, communities, and critical infrastructure and key resources lifelines so as to reduce their vulnerability to natural, technological, and human-caused incidents by lessening the likelihood, severity, and duration of the adverse consequences related to these incidents.
7) Operational Coordination – Establish and maintain a unified and coordinated operational structure and process that appropriately integrates all critical stakeholders and supports execution of core capabilities.

Knight highlighted that the Mitigation FIOP addresses the critical tasks, responsibilities, and resourcing, personnel, and sourcing requirements necessary to achieve the desired end-state for the mitigation mission area as described in the National Preparedness Goal. The FIOP enables the delivery of the core, all-hazards capabilities described in the National Mitigation Framework, which are to:

- Provide guidance for how Federal departments, agencies, coordinating structures, and interagency partnerships should use the Mitigation FIOP as a guide to build a hazard resilient nation through mitigation;
- Describe the mechanisms to enable the Federal agencies to deliver the mitigation core capabilities under existing authorities, programs, and coordinating structures in concert with nongovernmental and private sector organizations, and local, state, territorial, and tribal governments;
- Establish the Mitigation Framework Leadership Group (MitFLG) as a senior-level entity to coordinate mitigation efforts across the Federal Government agencies and assess the effectiveness of all-hazards mitigation capabilities as they are developed and deployed across the Nation; and
- Recognize success relies upon a whole community approach but is dependent upon federal interagency collaboration and integration.

Knight then discussed ways in which the SDR can provide perspective, expertise, and advice on FEMA's Mitigation FIOP by having the Subcommittee consider the following questions: How do you think the Mitigation FIOP will be received at your department or agency? What are the potential challenges for adoption and implementation? How do you see yourself engaging in response to the Mitigation FIOP?

How could we improve upon the FIOP? What would make it better and more applicable for your organization? In addition to these questions, Subcommittee members were asked to consider utilizing the SDR as an advisory board to FEMA's MitFLG in their efforts to coordinate mitigation across Federal agencies and assess the effectiveness of their all-hazards mitigation capabilities.

For more information on PPD-8 and the Mitigation FIOP, please visit http://www.fema.gov/prepared/ppd8.shtm or contact Knight (Sandra.Knight@fema.dhs.gov).

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

The June meeting minutes were approved with no changes.

Wenger reminded members that the SDR's International Working Group (IWG) will meet 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 July meeting, the IWG will primarily discuss the SDR's role as the U.S. National Platform for the UN International Strategy for Disaster Reduction (ISDR) as well as the U.S. response to the ISDR's next Hyogo Framework for Action (HFA) progress monitor and review for the 2011-2013 reporting period. Members who would like to get involved with the IWG should contact the SDR Secretariat (bret.schothorst@mantech.com).

Wenger also encouraged SDR agencies to provide funding support to the University of Colorado-Boulder's Natural Hazards Center, if possible. Please contact Dennis (dwenger@nsf.gov) for more information if you are interested in contributing to this fundraising effort.

By way of NSTC Infrastructure Subcommittee Co-chair Mary Ellen Hynes (DHS), the SDR learned that a National Resilience Coalition has been formed by the Infrastructure Security Partnership and several other associations, professional societies, and regional and state partnerships. The purpose of the coalition is to establish a common risk-based regional resilience philosophy that will advance emergency and security preparedness. For more information on this initiative, please visit: http://www.tisp.org/index.cfm?cdid=12638&pid=10260.

Fernando Echavarria (State) mentioned the successful participation of the SDR's International Working Group (IWG) at the Rio +20 UN Conference in Rio de Janeiro, Brazil, held June 20-22, 2012. The group coordinated a panel discussion – titled "International Partnerships: Indispensable Tools for Disaster Risk Reduction and Sustainable Development" – at the U.S. Center, highlighting U.S. government and non-governmental disaster risk reduction activities from many IWG member agencies and their international partners. A video stream of the event can be found online at: http://www.ustream.tv/recorded/23381362. The slide presentations from the panel discussion are available upon request to the SDR Secretariat (bret.schothorst@mantech.com).

VI. Report from the OSTP Liaison

As this September marks FEMA's ninth annual sponsorship of National Preparedness Month, Dickinson discussed the prospect of organizing a grand challenge or prize competition event focused on Federal interagency programs, partnerships, and collaborations that highlight disaster and community resilience to coincide with the occasion. If interested in brainstorming suggestions or ideas for a grand challenge or prize competition, please contact Dickinson (tdickinson@ostp.eop.gov) with a copy to the SDR Secretariat (bret.schothorst@mantech.com).

For information, Dickinson reported that the White House has issued a Presidential Executive Order on the "Assignment of National Security and Emergency Preparedness Communications Functions." The full text of the Executive Order can be found at: http://www.whitehouse.gov/the-press-office/2012/07/06/executive-order-assignment-national-security-and-emergency-preparedness-.

VII. Adjournment

The meeting adjourned at 11:57 a.m.

VIII. 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 shifted the July meeting to the second Thursday of the month to avoid proximity to the July 4th Federal holiday.

**Cancelled.

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 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 July Actions

Action	Lead	By When
Email Tammy Dickinson (tdickinson@ostp.eop.gov), copying the SDR Secretariat (bret.schothorst@mantech.com) to participate in a small working group or task force to discuss a disaster reduction- or community resilience-focused grand challenge or incentive prize highlighting Federal interagency programs, partnerships, and collaborations.	SDR Members and Federal Colleagues	ASAP

Send Tammy Dickinson (tdickinson@ostp.eop.gov) an email to outline your agency's disaster reduction and resilience priorities as they relate to the overall Subcommittee goals, objectives, and outcomes to develop into a transition document and roadmap forward for the next Presidential term beginning in January 2013.	SDR Members	ASAP
Contact the Secretariat (bret.schothorst@mantech.com) to contribute to the planning process of an upcoming Wilson Center workshop September 13-14, 2012 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	Standing
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	Standing
Please consider supporting the work of the SDR and its Secretariat through a contribution from your agency. Let Dave (applegate@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
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