Meeting Minutes of the Subcommittee on Disaster Reduction

06 June 2013, 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 *Bruce Davis*
DHS/FEMA Roy Wright
DHS/USCG *Austin Gould*
DOD *Al Johnson*
DOE *Patricia Hoffman*
DOT *Sheila Duwadi*
EOP/OMB *Grace Hu*
EOP/OSTP Tamara Dickinson
EPA *Peter Jutro*
Stephen Clark
FERC *Marsha Palazzi*
HUD *Dana Bres*
NASA Craig Dobson
NGA *Paul Lewis*
NGB *TBD*
NIH Aubrey Miller
NIST Marc Levitan (T)
NOAA Margaret Davidson (T)
Christopher Strager
NPS Marcy Rockman
NSF *Dennis Wenger*
OPHS Estella Jones (T)
State *Fernando Echavarria*
USACE *Steven Cary*
Dimitra Syriopoulou
USAID Sezin Tokar
USDA *TBD*
USFS *Elizabeth Reinhardt*
Carlos Rodriguez-Franco
USGS David Applegate
USNRC Steven West

Other Attendees

BLM Nancy Dean
Ronald McCormick
DHS Mary Ellen Hynes
DHS/FEMA Beth Norton
EOP/CEQ Jamie Pool
EPA Brendan Doyle
Paul Kudarauskas
Keely Maxwell
NGA Kimberly Walls
NOAA Mike Aslaksen (T)
Andrea Bleistein
Nell Codner
Josh Murphy
Jacob Sutherlun
Kevin Werner
NSF Morris Cohen
State Rajan Sen
USACE Bill Nye
USDA Glenn Bethel
USGS Teresa Dean (T)
Brenda Jones (T)
John Haines (T)
Bruce Molnia (T)
USNRC Thomas Nicholson
STPI Chris Clavin
Elaine Sedenberg
Secretariat Bret Schothorst
Barbara Haines-Parmele

Agenda

10:00 Welcome and Introductions
10:05 Report from the Co-chairs and Approval of Minutes
10:10 Report from the OSTP Liaison
10:15 Presentation: Oklahoma Tornados and NOAA 2013 Atlantic Hurricane Season Outlook
10:30 Briefing: Interagency Remote Sensing Coordination Cell
11:00 Briefing: Use of Federal Geospatial and Remote Sensing Data during Disasters
11:30 Roundtable Discussion: Issues and Challenges Associated with Interoperability of Federal Geospatial and Remote Sensing Data during Disasters
11:55 Close and Next Actions

Handouts

- June Meeting Agenda
- Draft May Meeting Minutes
- SDR Post-Sandy S&T Lessons Learned White Paper

I. Welcome and Introductions

National Science and Technology Council (NSTC) Subcommittee on Disaster Reduction (SDR) Co-chair David Applegate (USGS) called the June meeting to order at 10:00 a.m., and participants introduced themselves.

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

The May meeting minutes were approved with no changes.

Sezin Tokar (USAID), Co-chair of the SDR International Working Group (IWG), reported that the UN International Strategy for Disaster Reduction (UNISDR) 2013 Global Assessment Report (GAR) on Disaster Risk Reduction has been released and is available online at: http://www.preventionweb.net/english/hyogo/gar/2013/en/home/index.html. Tokar noted that USAID's Office of Foreign Disaster Assistance is hosting a meeting to discuss the report on Thursday, June 13, 2013 from 10:00-11:30 a.m. at the National Press Building (529 14th Street NW, 7th Floor, Washington, DC). The title of the 2013 GAR, which was released at last month's Global Platform on Disaster Risk Reduction conference, is *From Shared Risk to Shared Value: The Business Case for Disaster Risk Reduction.* It focuses on the role of public regulation and private investment in shaping disaster risk. The lead author of the report, as well as senior UNISDR staff, will present the report's findings and recommendations for public sector and private sector actors, and be available to engage in dialogue. Tokar stated to please feel free to share the invitation with interested colleagues. On a related note, the U.S. Mission in Geneva made a short YouTube video from the Global Platform meeting with interviews of U.S. delegation participants and U.S.-based NGOs. Most notable was SDR and SDR IWG Co-chair Dennis Wenger of NSF: http://youtu.be/k0SYHRu0-Wg.

Roy Wright (FEMA) shared FEMA's plans to initiate the Mitigation Framework Leadership Group (MitFLG) as described in the National Mitigation Framework (http://www.fema.gov/national-mitigation-framework) and the current draft of the Federal Interagency Operational Plan. He asked for SDR's assistance in nominating representatives of each agency to serve as Action Officers for the MitFLG and discuss identifying the senior-level membership of the group. Their first teleconference call will be Monday, June 10, 2013 at 10:00 a.m. to discuss nominating Action Officers from the different Federal members, identify participants for the MitFLG, and share the current draft of the Charter for the MitFLG. They also will be discussing the first meeting of the MitFLG which is tentatively scheduled for July 10, 2013. Please contact Wright (Roy.Wright@fema.dhs.gov) for more information on FEMA's effort to stand up their MitFLG.

III. Report from the OSTP Liaison

In the monthly report from the SDR's Office of Science and Technology Policy (OSTP) Liaison, Tammy Dickinson (OSTP) provided a short update on the activities of the Hurricane Sandy Rebuilding Task Force and its Science Coordination Working Group, which continues to progress in its objective to ensure that rebuilding efforts are informed by the most recent and relevant scientific advice to improve resilience and preparedness. Dickinson noted that the Task Force is planning to release the first draft of its comprehensive long-term rebuilding strategy, and that SDR members are encouraged to provide comments on the document through their agency's official Task Force representative. Members also can contact Dickinson (Tamara_L_Dickinson@ostp.eop.gov) or Christopher Clavin of the Science and Technology Policy Institute (cclavin@ida.org) to provide input to the draft strategy.

IV. Presentation: Oklahoma Tornados and NOAA 2013 Atlantic Hurricane Season Outlook

Applegate introduced Andrea Bleistein (NOAA), who is the Science and Service Integration Deputy and Roadmap Execution Manager of the Weather-Ready Nation Project at the NOAA National Weather

Service (NWS). Bleistein briefed the SDR on the Oklahoma tornados that struck Moore on May 20 and El Reno on May 31 as well as on NOAA's 2013 Atlantic hurricane season outlook.

According to Bleistein, the EF5 tornado that struck the city of Moore with such devastation had a path length of 17 miles, was 1.3 miles wide, and had peak winds estimated at 210 mph. The tornado also killed 24 people, injured at least 230, and destroyed over 1,050 homes, despite the city having a 36-minute warning lead-time as the storm was approaching. The EF5 tornado that ravaged rural areas surrounding El Reno had a path length of 16.2 miles, was 2.6 miles wide (the largest ever recorded), and had estimated low-level peak wind speeds of 296 mph (second strongest ever recorded). There were seven fatalities associated with this tornado.

Wright noted that the performance of FEMA-designated community safe rooms during the recent tornados in Oklahoma was extraordinary and saved a tremendous number of lives. According to FEMA, a safe room is a hardened structure specifically designed to provide "near-absolute protection" in extreme weather events, including tornadoes and hurricanes. Near-absolute protection means that, based on current knowledge of tornadoes and hurricanes, the occupants of a safe room built in accordance with FEMA guidance will have a very high probability of being protected from injury or death. To be considered a FEMA safe room, the structure must be designed and constructed to the guidelines specified in FEMA P-320, *Taking Shelter from the Storm: Building a Safe Room for Your Home or Small Business* and FEMA P-361, *Design and Construction Guidance for Community Safe Rooms*.

Wright underscored that the International Code Council's (ICC) International Building Code (IBC) presently does not require that safe rooms be built within newly constructed buildings; however, as of 2015, IBC guidelines will mandate the use of a storm shelter standard – officially known as ICC-500, *Standard for the Design and Construction of Storm Shelters* – for the "Tornado Alley" region of the U.S. that will require all new public-use buildings (such as schools, libraries, community centers, etc.) to have a community-based storm shelter. Tokar followed up Wright's comment to ask how the boundaries of the area known as Tornado Alley were originally determined and if they are being modified in any way due to the changing climate. Bleistein noted that the geographic definition of Tornado Alley was based on the historical climatology and tornado frequency and intensity of the impacted region and may change slightly over time due to new and shifting weather patterns. Marc Levitan (NIST) added that the ICC-500 standard adopted the Tornado Alley map developed originally for the FEMA P-361 guidance for community safe rooms and encompasses the same area with very few exceptions.

To close her presentation and with regards to the upcoming hurricane outlook for the Atlantic region, Bleistein stated that NOAA predicts an above-average active season in 2013. There is a 70 percent likelihood of 13 to 20 named storms (winds of 39 mph or higher) occurring, while 7 to 11 of those could become hurricanes (winds of 74 mph or higher) and 3 to 6 could become major hurricanes (Category 3, 4 or 5; winds of 111 mph or higher).

Please contact Bleistein (andrea.bleistein@noaa.gov) with any questions about her briefing.

V. Briefing: Interagency Remote Sensing Coordination Cell

Dickinson introduced Paul Kudarauskas (EPA), who is an Environmental Scientist and the Logistics Manager and D.C. Liaison for the ASPECT Program, Consequence Management Advisory Team (CMAT), at EPA. Kudarauskas is EPA's representative to the DHS-led Interagency Remote Sensing Coordination Cell (IRSCC) and presented on the IRSCC's mission, goals, and objectives.

To begin his briefing, Kudarauskas outlined the primary purposes of the IRSCC, which is to:

- Coordinate, synchronize, collaborate on, and track remote sensing collection activities and capabilities;

- Ensure information needs of first responders, state emergency managers, and Federal agencies are established and addressed during Stafford and non-Stafford Act disaster scenarios;
- Improve Federal coordination of remote sensing requirements and capabilities in response to natural and man-made disasters;
- Conduct coordination of remotely-sensed data collection, analysis, and dissemination in support of a lead Federal agency (e.g. FEMA);
- Create a virtual community of interest to facilitate situational awareness and share remote sensing data at the Federal, state, and local levels; and
- Improve the governance of Federal remote sensing operations by minimizing duplication of effort, eliminating unnecessary taskings, and reducing operational costs.

According to Kudarauskas, the IRSCC is comprised of Federal member agencies with: 1) homeland security authorities; 2) tasking and collection authorities; 3) collection management resources and authorities; 4) data storage facilities; and 5) dissemination capabilities. It also includes agencies that provide Geospatial Information System (GIS), imagery analysis, or data storage resources and control, have tasking authority over, or possess airborne or space-based platforms and sensors. The full list of membership includes:

- DHS/Office of Intelligence & Analysis
- DHS/Federal Emergency Management Agency
- DHS/Office of Operations Coordination and Planning
- National Guard Bureau
- Civil Air Patrol
- U.S. Geological Survey
- National Oceanic & Atmospheric Administration
- Environmental Protection Agency
- National Geospatial-Intelligence Agency
- DHS/Customs & Border Protection
- DHS/National Protection and Programs Directorate
- National Aeronautics & Space Administration
- U.S. Department of Agriculture
- U.S. Northern Command
- U.S. Coast Guard
- DHS/Geospatial Management Office
- U.S. Army Corps of Engineers
- National Reconnaissance Office

Kudarauskas noted that the current goals of the IRSCC are: 1) collaborative sharing of information for all types of incidents; 2) seamless IRSCC member reporting on remotely sensed collected data to support homeland security missions; 3) development of interoperable data sharing between IRSCC member partners; 4) coordination of interagency remote sensing requirements and capabilities in response to natural and manmade disasters; and 5) provision of subject matter expertise on emerging technologies and capabilities that may benefit Federal mission owners. As part of the goal of collaborative sharing, IRSCC members publish web services to access imagery and related products and connect their individual systems for rapid access. This includes through the open USGS Hazards Data Distribution System (HDDS) at http://hdds.usgs.gov/hdds2/ and via the secured DHS Homeland Security Information Network (HSIN) at https://government.hsin.gov/sites/EmergencyManagement/IRSCC/default.aspx. These networks allow members to create a common space where mission information can be posted, web services can be accessed, and automatic update notifications can be received.

To close his presentation, Kudarauskas laid out the way ahead for the IRSCC, which will entail completing the implementation of the IRSCC functional re-organization as proposed in May 2012 by its Executive Committee and approved February 2013, focusing on active participation of members based on specific mission and authorities, expanding the IRSCC co-chairmanship to include DOD and NGA at the head of the table along with DHS, revising its concept of operations (CONOPs) and standard operating procedure (SOP) plans, participating in NSTC interagency homeland security governance groups such as the SDR, and promoting the increased use of remote sensing as an essential part of situational awareness and mission support.

If SDR members would like to participate in this interagency working group or contribute to Federal geospatial and remote sensing data coordination efforts, please contact Kudarauskas (Kudarauskas.Paul@epa.gov) or Tom Willoughby (Thomas.Willoughby@hq.dhs.gov) or Chris Barnard (robert.barnard@hq.dhs.gov) of the IRSCC leadership.

VI. Briefing: Use of Federal Geospatial and Remote Sensing Data during Disasters

Dickinson introduced Glenn Bethel (USDA), a Remote Sensing Advisor who serves as USDA's senior technical expert and policy advisor for operational remote sensing issues. In this capacity, he's an active member of the Civil Applications Committee (CAC), the U.S. Group on Earth Observations (USGEO), the Commercial Remote Sensing Space Policy Shared Execution Team, and the IRSCC. Bethel briefed the Subcommittee on the various Federal remote sensing and geospatial data sources for disasters, specifically pre-event and event imagery during Hurricane Sandy.

To start his presentation, Bethel stated that during major disasters – beginning with Hurricane Katrina in 2005 – he has undertaken the role to catalog the various public domain and privately licensed remote sensing and geospatial data products that are available and distribute that information in a consolidated document to over 300 Federal, state, and local emergency management officials as well as to members of academia and the private sector. He noted that within the first few weeks of an event he updates the document about twice per day and seven days a week in order to provide the best quality and most recently available information to the disasters community and to offer a quick reference guide for local and national level response and recovery efforts.

Bethel underlined the importance of having pre-event imagery available for impacted areas immediately following a disaster in order to adequately detect and quantify the amount of damage that has occurred to the landscape. He noted that states often times have the best high-resolution programs and the best available pre-event data but do not always share that information with their Federal counterparts beforehand. According to Bethel, the U.S. government does not cost share on every state high-resolution aerial program and unfortunately does not have the funds to host all of the pre-event imagery or to create representational state transfer (known as REST) services for all available image layers.

During Hurricane Sandy, the Federal government funded several major remotely sensed and geospatially driven imagery collections following Hurricane Sandy through the following Federal agencies:

1) NGA – contracted commercial high-resolution products such as Digital Globe and GeoEye;
2) DOD – U.S. Air Force Eagle Vision acquired products like Spot and RapidEye;
3) USGS/USDA – funded North American Data Buy and Spot 4 and 5 imagery in Earth Explorer;
4) FEMA – contracted imagery through the Civil Air Patrol (CAP); and
5) NOAA – acquired via NOAA Aerial imagery services.

In addition to states and the Federal government, Bethel noted that the private sector also will collect remote sensing and geospatial information on occasion following a disaster. As was the case in Hurricane Sandy, companies like Google, Microsoft, Surdex, and Bearing Tree Land Surveying provided publically

available imagery of affected coastal areas in New York and New Jersey that was able to enhance the imagery products collected and distributed by other entities.

After reviewing several remotely sensed and geospatial images of coastal damage caused by Hurricane Sandy to provide a glimpse into what products are available before and following disasters, Bethel covered the scope of USDA involvement in disasters to close his presentation. He noted that during severe drought – as designated officially by the Secretary of Agriculture – USDA activates and provides several disaster assistance programs for landowners, farmers, ranchers, and producers, including:

- Emergency Conservation Program
- Emergency Watershed Protection Program
- Emergency Forest Restoration Program
- Noninsured Crop Disaster Assistance Program
- Tree Assistance Program
- Supplemental Revenue Assistance Payments Program
- Emergency Assistance for Livestock, Honeybees, and Farm Raised Fish
- Livestock Forage Disaster Program
- Livestock Indemnity Program
- Emergency Loan Program

The Food and Nutrition Service (FNS) at USDA also coordinates with state, local, and voluntary non-profit organizations during other disaster events to issue Disaster Supplemental Nutrition Assistance Program (D-SNAP) benefits. As part of the National Response Framework, FNS also provides nutrition assistance to those most affected by a disaster or emergency by supplying food to disaster relief organizations such as the Red Cross and the Salvation Army for mass feeding or household distribution.

Please contact Bethel (Glenn.Bethel@fas.usda.gov) with any questions about his presentation on the use of remote sensing and geospatial data sources for disasters or about the role of USDA during disasters.

VII. Roundtable Discussion: Issues and Challenges Associated with Interoperability of Federal Geospatial and Remote Sensing Data during Disasters

Bethel and Kudarauskas led a dynamic roundtable discussion of SDR member agencies following their presentations to address the issue of Federal geospatial and remote sensing data interoperability and availability that was raised in our post-Sandy S&T lessons learned white paper. Both the briefings and follow-on discussion provided a timely outline of the various remote sensing and geospatial data sources collected and coordinated within the Federal scope during disasters and helped identify ways that the U.S. government can better make use of that information to assist state and local emergency responders and other government officials before, during, and immediately after extreme events.

To start off the discussion, Bethel noted that Federal situational awareness in this area could be enhanced with additional funding for ongoing coordination initiatives and platforms aimed at addressing remote sensing and geospatial data and imagery gaps for all-hazards. In response to a question from Dickinson regarding the appearance of duplicated efforts in the area of collection and platforms, Mike Aslaksen (NOAA) added that, from the perspective of the IRSCC, there is actually very minimal data collection and dissemination overlap because they all the platforms have different uses and serve different purposes. He underlined that the biggest need for improvement is having an end-to-end comprehensive imagery collection strategy in place before an event, which would go a long ways towards improving the Federal government's ability to respond to and assist recovery from disasters. Brenda Jones (USGS) made the distinction between the various Federal platforms for post-disaster remote sensing and geospatial information by pointing out that the USGS HDDS platform, while supplementing the efforts of the DHS HSIN and FEMA GeoPortal Online platforms during all Presidentially-declared disasters, provides data

sets and information for smaller-scale disasters at the state and local levels as well. She stated that additional resources for data collection during these smaller-scale disasters would be very useful in order to adequately provide Federal support to regional response and recovery efforts. Kudarauskas noted that perhaps a national clearinghouse of remote sensing and geospatial data for all disasters, large or small, may serve a purpose to enhance situational awareness amongst the Federal agencies and increase efficiency when funneling the information to state and local emergency managers.

Wright stated that he's less concerned about duplication efforts and more worried about a lack of resources that afford adequate advanced pre-event scenario planning with regards to remote sensing and geospatial data collection. He referenced the days of heavy atmospheric cloud cover post-Sandy that inhibited the use of satellites for imagery collection and made Federal efforts more heavily reliant on mission-assigned airborne methods like the CAP, which wasn't an ideal situation. Beth Norton (FEMA) added that, even with the increased cloud cover, house-by-house damage assessments after Hurricane Sandy were still days ahead of similar assessments for previous disasters like the Joplin, Missouri tornado in May 2011 due to the amount of imagery that was available. Kudarauskas noted that other airborne remote sensing assets – such as EPA's Airborne Spectral Photometric Environmental Collection Technology, known as ASPECT – were able to assist in the imagery collection efforts post-Sandy when cloud cover and less than optimal conditions impeded the use of geospatial satellites.

Bruce Molnia (USGS) of the CAC followed-up in response to previous agency comments regarding the lack of access to pre-event imagery to add that recent pre-event commercial imagery covering the entire country is publically available to all Federal agencies, and its access can be facilitated by the CAC. He also noted that a real area for improvement in this area is the lack of sufficient radar satellites within the U.S. government's asset portfolio to compensate for cloud cover. Craig Dobson (NASA) seconded Molnia's observation on the Federal government's lack of adequate satellite radar and stated that the agencies could be a wiser purchaser of licensed commercial radar imagery in the absence of a comprehensive Federal radar strategy. Dobson also noted that a smarter and more systematic data collection schedule (i.e., regular updates) is needed for both pre-and post-event imagery.

As a final comment in the discussion on geospatial and remote sensing data interoperability and availability during disasters, John Haines (USGS) mentioned that other interagency working groups such as the Interagency Working Group on Ocean and Coastal Mapping of the Subcommittee on Ocean Science and Technology under the National Ocean Council could be tapped to assess the effectiveness of the government's current capability in this area and assist in the development of a framework for a more cohesive Federal disaster response.

Please contact Dickinson (Tamara_L_Dickinson@ostp.eop.gov) with ideas or suggestions of how the SDR can play a role in resolving any existing challenges in this arena going forward.

VIII. Adjournment

Applegate adjourned the SDR June meeting at 12:05 p.m.

IX. Future Meetings

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

2013

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

- ✓ Thursday, November 7
- ✓ Thursday, December 5

X. 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).

XI. 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

XII. Summary of June Actions

Action	Lead	By When
Contact the SDR Secretariat (bret.schothorst@mantech.com) and OSTP Liaison Tammy Dickinson (tdickinson@ostp.eop.gov) with ideas or suggestions for a path forward of how the SDR can address the issue of Federal geospatial and remote sensing data interoperability and availability identified in our post-Sandy S&T lessons learned white paper.	SDR Members and Federal Colleagues	ASAP
Contact Roy Wright (Roy.Wright@fema.dhs.gov) for more information on FEMA's effort to stand up their Mitigation Framework Leadership Group (MitFLG).	SDR Members and Federal Colleagues	ASAP
Send brief write-ups outlining the impacts that budget sequestration cuts are having on your agency's disaster reduction S&T activities in FY 2013 as well as an outlook of the President's FY 2014 budget request to the SDR Secretariat (bret.schothorst@mantech.com) copying our OSTP Liaison (tdickinson@ostp.eop.gov).	SDR Members	Standing
Reach out to Kevin Werner (kevin.werner@noaa.gov) and OSTP Liaison Tammy Dickinson (tdickinson@ostp.eop.gov) to engage with the Hurricane Sandy Rebuilding Task Force Science Coordination Working Group to identify important scientific information needs of decision-makers on the ground and in agencies within the Task Force effort.	SDR Members and Federal Colleagues	Standing

Email the SDR Secretariat (bret.schothorst@mantech.com) and OSTP Liaison Tammy Dickinson (tdickinson@ostp.eop.gov) if willing to pilot an assessment of the progress of the short-, mid-, and long-term goals outlined in an SDR Grand Challenges for Disaster Reduction implementation plans.	SDR Members	Standing
Contact OSTP Liaison Tammy Dickinson (tdickinson@ostp.eop.gov) and the SDR Secretariat (bret.schothorst@mantech.com) to participate in the OSTP Big Data initiative to incorporate public-facing Federal natural hazards data sets to Data.gov or to suggest needed tech tools and apps for information sharing ahead of future emergencies or natural disasters.	SDR Members and Federal Colleagues	Standing
Please consider supporting the work of the SDR and its Secretariat through a contribution from your agency. Let Co-chair David Applegate (applegate@usgs.gov) know if you need an Agency- or Department-specific request letter.	SDR Members	Standing
Contact Co-chair Dennis Wenger (dwenger@nsf.gov) if your agency is able to provide funding support to the University of Colorado-Boulder's Natural Hazards Center.	SDR Members and Federal Colleagues	Standing
Contact OSTP Liaison Tammy Dickinson (tdickinson@ostp.eop.gov) if it would be helpful for OSTP to issue a letter to your agency or department requesting new (or re-affirmed) designation of official representatives. Ideas for other entities that should be represented on the SDR are also welcome.	SDR Members	Standing