

# Meeting Minutes of the Subcommittee on Disaster Reduction

6 April 2017, 10:00 a.m. to 12:00 p.m., White House Conference Center Lincoln Room

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

## Co-chairs

David Applegate (USGS)

Jack Meszaros (OSTP)

## Designated Representatives

**ASPR** Darrin Donato (T)

**BLM** Georgette Fogle (T)

**CDC** *Mollie Mahany*

**DHS** Erin Walsh

**DHS/FEMA** *Roy Wright*

**DHS/USCG** *Jim Small*

**DOD** *Al Johnson*

**DOE** *Patricia Hoffman*

**DOT** Sheila Duwadi

**EOP/OMB** *Michael Clark*

**EOP/OSTP** Jack Meszaros

**EPA** *Greg Sayles*

**FERC** *Marsha Palazzi*

**HUD** Dana Bres

**NASA** Craig Dobson

**NGA** *Kerri Dugan*

**NGB** Steve Mason

**NIH** *Aubrey Miller*

**NIST** *Steve Cauffman*

**NOAA** *Margaret Davidson*

*Mary Erickson*

**NPS** Marcy Rockman

**NSF** *Greg Anderson*

**State** Fernando Echavarria

**USACE** Tony Niles

**USAID** *Sezin Tokar*

**USCB** *Laura Furgione*

**USDA** *TBD*

**USFS** *Matt Rollins*

*Carlos Rodriguez-Franco*

**USGS** David Applegate

**USNRC** *Edwin Hackett*

**USPHS** *Estella Jones*

## Other Attendees

**DHS** Mitch Erickson (T)

**DHS/FEMA** Emily Blanton (T)

Nick Shufro (T)

**EPA** Brendan Doyle (T)

**NASA** Gerald Bawden

Dalia Kirschbaum

**NGB** Geri Colombaro

Chet Guyer

**NIH** April Bennett

**NIST** Marc Levitan (T)

**NOAA** Peter Colohan

Mary Mullusky

John Murphy (T)

Peter Roohr

**NPS** Ann Hitchcock

**USCB** Rob Sienkiewicz

**USDA** Glenn Bethel (T)

**USGS** Bill Leith (T)

Charlie Mandeville (T)

Cecily Wolfe

**USPHS** Tracy MacGill (T)

**STPI** Rob Rozansky

**SDR Secretariat**

Bret Schothorst

Barbara Haines Parmele (T)

## Agenda

10:00 Welcome, Introductions, and Approval of Minutes

10:05 Co-chairs Report

10:15 Update from SDR Task Forces and Working Groups

10:30 Update on NWIRP Strategic Plan

10:40 Briefing: NOAA 2017 Spring Flood Outlook

11:15 Presentation: Earth Observation Assessment Disasters SBA

11:55 Close and Next Actions

## Handouts

- April Meeting Agenda
- Draft March Meeting Minutes

## **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 10:02 a.m. in the White House Conference Center Lincoln Room, and participants introduced themselves.

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

The draft of the minutes for the March monthly meeting was approved with no changes.

April Bennett (NIH) gave a short readout of the National Institute of Environmental Health Sciences (NIEHS) Disaster Research Response (DR2) Program's "Fourth Annual Federal Interagency Disaster Research Meeting" that was held on March 10. The meeting explored Federal efforts for enhancing our collective ability to conduct timely health research in response to disasters and other time-critical situations, and hosted discussions focused on: 1) sharing information about recent agency activities, 2) learning about ongoing efforts and plans among Federal partners, and 3) identifying opportunities for progress and interagency collaboration in the coming year.

SDR Co-chair Jack Meszaros (OSTP) provided an update on the White House transition, noting that her office is still in the process of reorganizing around the priorities and needs of the new Administration. She added that OSTP has yet to put new leadership in place, but new team members who have been brought on are heavily focused on technology issues. She added that although the SDR charters for the full Subcommittee and its task forces and working groups expired last month, the NSTC has decided to extend those charters as is for six months until there is new OSTP leadership in place that can recommend either re-chartering or sunseting.

Applegate passed along a reminder to mark calendars for the University of Colorado Boulder's Natural Hazards Center 42<sup>nd</sup> Annual Workshop, which will take place July 9-12, in Broomfield, CO. The SDR has been approached about holding a breakout session at the 2017 workshop, following up on previous listening sessions in recent years coordinated by the SDR-led U.S. National Platform that solicited multi-sectoral perspectives on the UN Office for Disaster Risk Reduction (UNISDR) priorities of the former *Hyogo Framework for Action 2005-2015* and current *Sendai Framework for Disaster Risk Reduction 2015-2030*. Applegate noted that the Subcommittee would plan to flesh out details of this opportunity in more depth at its upcoming May meeting. More workshop information is at: <https://hazards.colorado.edu/workshop/2017>.

## **III. Update from SDR Task Forces and Working Groups**

Applegate mentioned that the SDR International Disaster Risk Reduction (IDRR) Working Group would hold its next meeting on the afternoon of April 6. The primary items for discussion at the meeting are to review a summary of outcomes from the 2017 UNISDR Regional Platform Meeting (Regional Action Plan and Montreal Declaration) and continue to plan U.S. participation at the upcoming 2017 UNISDR Global Platform Meeting (May 24-26, Cancun, Mexico). Applegate added that the IDRR is also working with FEMA to conduct a gap analysis of the Sendai Framework cross-walked with national preparedness doctrine, as well as coordinate a presentation at its June meeting from UNISDR's Andrew Maskrey on the final Sendai Framework indicators as the working group gears up to begin data collection on U.S. progress against the framework's reporting requirements. Reach out to the SDR Secretariat ([bret.schothorst@mantech.com](mailto:bret.schothorst@mantech.com)) to be connected with the activities of the IDRR Working Group.

Meszaros reported that the SDR National Preparedness Science and Technology (NPST) Task Force post-event S&T sub-group continues to develop its executive summary report in conjunction with several participating SDR member agencies, which may be ready for review within the next few weeks. Also of note, the NPST Task Force engaged in a collaborative effort with FEMA and the National Security Council last year to incorporate S&T language into the recent update of the Federal Interagency

Operational Plans (FIOPs). As part of this activity, the NPST plans to participate in a writing team in 2017 to draft a broader “S&T Annex” document for the preparedness FIOP.

Meszaros also noted that the SDR Technology and Innovation for Disaster Preparedness (TIDP) Working Group continues to make progress on its “Call to Action” white paper highlighting a set of common, technology-related needs of local officials in challenging disaster settings. The needs constitute a set of user-driven desires for technology to support disaster management and specifications for the types of support to enable the public safety community to leverage this technology to enhance decision-making, information sharing, and operations before, during and after disasters. Reach out to Jack Meszaros ([Jacqueline R. Meszaros@ostp.eop.gov](mailto:Jacqueline_R_Meszaros@ostp.eop.gov)) to be connected with the activities of the TIDP Working Group.

#### **IV. Update on NWIRP Strategic Plan**

Applegate introduced Marc Levitan from NIST, who discussed the recently released draft National Windstorm Impact Reduction Program (NWIRP) Strategic Plan that is currently open for a 60-day public comment period as detailed in the Federal Register:

<https://www.federalregister.gov/documents/2017/03/14/2017-04933/request-for-public-comments-on-strategic-plan-for-the-national-windstorm-impact-reduction-program>.

According to Levitan, the plan details three overarching, long-term strategic goals for the NWIRP – as well as the 14 key objectives and seven research priorities needed to facilitate their implementation – to “achieve major measurable reductions in the losses of life and property from windstorms.” The three strategic goals are:

- Goal A: Improve the Understanding of Windstorm Processes and Hazards
- Goal B: Improve the Understanding of Windstorm Impacts on Communities
- Goal C: Improve the Windstorm Resilience of Communities Nationwide

Once implemented, the plan will guide and coordinate the windstorm impact reduction research, development, implementation, education and outreach activities conducted by NWIRP’s four core member agencies (FEMA, NIST, NOAA, and NSF). The NWIRP vision is a nation that is windstorm-resilient in public safety and economic well-being.

Levitan mentioned that comments on the draft NWIRP Strategic Plan are due by Monday, May 15 in one of three ways: by email to [nwirp@nist.gov](mailto:nwirp@nist.gov); by fax to 301-869-6275; or by U.S. mail to the NWIRP, Attn: Dr. Marc Levitan, NIST, 100 Bureau Dr., Stop 8611, Gaithersburg, Maryland 20899-8611. Levitan indicated that Federal agency comments could be received until June 15. As far as a timeline for finalizing the draft plan, the National Advisory Committee on Windstorm Impact Reduction (NACWIR) will review the initial comments received in June, followed by the Windstorm Working Group (WWG) considering all public, NACWIR, and agency comments and finalizing the plan over the course of the summer. The Interagency Coordinating Committee (ICC) will then perform its final review and issue approval of the plan at the end of the summer later this year.

A copy of the draft NWIRP Strategic Plan can be downloaded by visiting:

[https://www.nist.gov/sites/default/files/documents/2017/03/13/strategic\\_plan\\_for\\_national\\_windstorm\\_impact\\_reduction\\_program\\_-\\_draft\\_f.pdf](https://www.nist.gov/sites/default/files/documents/2017/03/13/strategic_plan_for_national_windstorm_impact_reduction_program_-_draft_f.pdf).

#### **V. Briefing: NOAA 2017 Spring Flood Outlook**

Applegate introduced Mary Mullusky and Peter Colohan from NOAA, who briefed SDR members on the NOAA National Weather Service’s Spring Flood Outlook for 2017. The briefing covered the entire hydrologic forecast, which included flood, drought, and precipitation outlooks.

Regarding the prior six-month precipitation and monthly soil moisture period leading up to this spring, Mullusky noted that a wet fall and winter caused above normal soil moisture in parts of the Upper Midwest and West as well as limited snowpack in the Midwest and Northeast but higher in the Cascades and Sierras. This led to the Spring Drought Outlook released in mid-March to favor improving drought conditions for many existing areas in the contiguous U.S. For the April-June temperature outlook, a warmer pattern is anticipated in Alaska, while continued warmth for the continental U.S. and wet across the Gulf Coast and Northern Plains is predicted.

She added that the U.S. Spring Flood Outlook also notes that heavy snowpack and wet soils will contribute to an increased flooding risk in northern North Dakota, northern New England, and in the West. In North Dakota, moderate to major flooding is possible for the Souris River Basin, the Devils Lake Basin, and the northernmost tributaries of the Red River of the North Basin. Moderate flooding is also possible for the Snake River Basin in Idaho. Spring thunderstorm activity and associated rainfall will drive flood risk in the central U.S., along the Gulf Coast, and across the Southeast. A new story map display highlighting NOAA's National Weather Service spring flood predictions can be viewed at: <http://noaa.maps.arcgis.com/apps/MapJournal/index.html?appid=68e302ea2b1c4f53aa711374c44bf109>.

Colohan then highlighted an experimental tool at NOAA for enhancing the current forecasting system called the National Water Model (NWM) that was initially implemented in August 2016. Goals for the NWM include: focusing on full range of water resources, from droughts to floods; providing forecast streamflow guidance for underserved locations; producing spatially continuous national estimates and forecasts of hydrologic states (soil moisture, snow pack, etc.); implementing a modeling architecture that permits rapid infusion of new data and science and supports additional NOAA water initiatives; and providing a foundation for sustained growth in nationally consistent operational hydrologic forecasting capability. This effort also includes a prototype continental-scale inundation mapping tool that forecasts discharge with the NWM and then converts the discharge to depth using a rating curve and converts that depth to inundation using the "Height Above Nearest Drainage" (HAND) method.

Please email Colohan ([Peter.Colohan@noaa.gov](mailto:Peter.Colohan@noaa.gov)) for more information on this novel capability.

## **VI. Presentation: Earth Observation Assessment Disasters SBA**

Meszaros introduced Cecily Wolfe from USGS and Pete Roohr from NOAA, who presented on the findings of the Disasters Societal Benefit Area (SBA) of the most recent Earth Observation Assessment (EOA 2016).

The Disasters SBA team considered how Earth observing systems benefit disaster-related events to produce an assessment of the portfolio of those systems that support Federal agencies, seeking added insight on research priorities and future needs in addition to existing systems. Hazards included in the assessment included earthquakes, landslides and land subsidence, droughts, coastal inundation, heat waves, tsunamis, tornados, severe weather and storms, tropical storms, floods, wildfires, volcanic eruptions, and space weather hazards such as radiation and geomagnetic storms. It did not include subject matter discussed in other SBAs like Space Weather, Weather and Climate but included weather and hydro-related events associated with high frequency.

Broadly speaking, the team found that the highest priorities and recommendations for the future in this area should target sustaining the ability to prepare for and mitigate hazards and continuing to provide high-profile forecasts, advisories, warnings, and situational awareness products needed to meet societal demands for pre-event preparedness and mitigation, effective disaster response, and efficient recovery. Numerous "Key Product, Service, or Outcomes" (KPSOs) were defined and grouped by the Disasters SBA team as follows:

- Hazard Assessments

- Database and catalogs
- Public communication and technical assistance
- Planning, preparation, and risk assessment
- Citizen science
- Forecasts, advisories, warnings, and situational awareness
- Loss estimates
- Codes and standards

Key gaps uncovered in the geohazards arena include: completing the building of ground-based USGS monitoring systems for earthquakes (ANSS) and volcanoes (NVEWS); improving imagery of land surface change and deformation (SAR/InSAR) and developing a precise national topographic data set (LiDAR); procuring high-resolution, precise national digital elevation data sets for nearly every disaster type; and obtaining real-time data from broad ocean areas and better oceanic and coastal bathymetry data to model tsunamis and identify submarine volcanoes and faults.

Additional weather-related gaps identified include: improving large observation data for weather in the upper atmosphere and above the surface in the planetary boundary layer (PBL); improving radiosonde measurements of temperature, humidity, and wind on a consistent and broad basis; increasing observations of upper air data to improve forecasting of tropical storms, blizzards, and other weather events; expanding river flood forecasting capabilities from the existing 4,000 river forecast locations to develop a robust flood monitoring and documentation process that extends the USGS streamgage network; and enhance ground moisture observations for monitoring fire potential and understanding, modeling, and forecasting floods and many other hydrology and ecosystem-related disasters.

The initial results are available to the U.S. Group on Earth Observations (USGEO) members via the OMB MAX.gov website, and a national report is being developed by OSTP for delivery to Congress as required by legislation. Please contact Wolfe ([cwolfe@usgs.gov](mailto:cwolfe@usgs.gov)) or Roohr ([peter.roohr@noaa.gov](mailto:peter.roohr@noaa.gov)) for more information on the work of the Disasters SBA for the EOA 2016.

## **VII. Adjournment**

Applegate adjourned the SDR April meeting at 12:04 p.m. and noted that the group's next meeting will be held on Thursday, May 4, 2017, in the White House Conference Center Lincoln Room.

## **VIII. SDR 2017 Meeting Calendar**

SDR meetings in 2017 will be held from 10:00 a.m. to 12:00 p.m. on the dates listed below in the Lincoln Room of the White House Conference Center unless otherwise noted:

### **2017**

- ✓ Thursday, January 5
- ✓ Thursday, February 2
- ✓ Thursday, March 2
- ✓ Thursday, April 6
- ✓ Thursday, May 4
- ✓ Thursday, June 1
- ✓ Thursday, July 13\*
- ✓ Thursday, August 3\*\*
- ✓ Thursday, September 7
- ✓ Thursday, October 5
- ✓ Thursday, November 2
- ✓ Thursday, December 7

\* July meeting shifted to the second Thursday of the month to avoid proximity to the Independence Day Federal holiday.

\*\* August meeting subject to cancellation.

**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@mantech.com](mailto:bret.schothorst@mantech.com)).

**X. Contact Information**

**SDR Leadership**

David Applegate	Co-chair	703-648-6600	applegate@usgs.gov
Jack Meszaros	Co-chair	202-456-6020	Jacqueline_R_Meszaros@ostp.eop.gov

**Executive Secretariat**

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

**XI. Summary of April Actions**

Action	Lead	By When
Note that the next SDR meeting will be held on Thursday, May 4 in the White House Conference Center Lincoln Room.	SDR Members	For Information
Mark calendars for the Natural Hazards Center 42 <sup>nd</sup> Annual Natural Hazards Workshop, July 9-12, in Broomfield, CO, at <a href="https://hazards.colorado.edu/workshop/2017">https://hazards.colorado.edu/workshop/2017</a> .	SDR Members and Federal Colleagues	For Information
Submit comments on the NWIRP Strategic Plan to <a href="mailto:nwirp@nist.gov">nwirp@nist.gov</a> by Monday, May 15, although Federal agency comments can be submitted until June 15.	SDR Members	Monday, May 15
Reach out to the SDR Secretariat ( <a href="mailto:bret.schothorst@mantech.com">bret.schothorst@mantech.com</a> ) or Jack Meszaros ( <a href="mailto:Jacqueline_R_Meszaros@ostp.eop.gov">Jacqueline_R_Meszaros@ostp.eop.gov</a> ) to be connected with the activities of the SDR IDRR and TIDP Working Groups.	SDR Members	Standing
Email Peter Colohan ( <a href="mailto:Peter.Colohan@noaa.gov">Peter.Colohan@noaa.gov</a> ) for more information on the capabilities of the National Water Model.	SDR Members and Federal Colleagues	Standing
Contact Cecily Wolfe ( <a href="mailto:cwolfe@usgs.gov">cwolfe@usgs.gov</a> ) or Pete Roohr ( <a href="mailto:peter.roohr@noaa.gov">peter.roohr@noaa.gov</a> ) for more information on the work of the Disasters Societal Benefit Area for the Earth Observation Assessment 2016.	SDR Members and Federal Colleagues	Standing
Send additional disaster-related priorities from your agency for consideration in the new Administration to the SDR Secretariat ( <a href="mailto:Bret.Schothorst@ManTech.com">Bret.Schothorst@ManTech.com</a> ) on a rolling basis.	SDR Members	Standing
Send Dave Applegate an email ( <a href="mailto:applegate@usgs.gov">applegate@usgs.gov</a> ) if you are interested in contributing to the work of the SDR and would like additional documentation or an agency-specific letter.	SDR Members	Standing
Email the SDR Secretariat ( <a href="mailto:bret.schothorst@mantech.com">bret.schothorst@mantech.com</a> ) to suggest external DRR stakeholder groups to invite to present at quarterly SDR meetings on behalf of the U.S. National Platform for UNISDR.	SDR Members	Standing