# Meeting Minutes of the Subcommittee on Disaster Reduction

1 April 2010, 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.

### Officers

David Applegate (USGS), Chair Margaret Davidson (NOAA), Vice-Chair Dennis Wenger (NSF), Vice-Chair

#### **Designated Representatives**

BLM Edwin Roberson Daniel Lechefsky CDC Mark Keim DHS Bruce Davis DHS/FEMA Deborah Ingram DHS/USCG Steven Cohen DOD Al Johnson DOE Patricia Hoffman DOT Kelly Leone Sheila Duwadi Tim Schmidt EOP/OSTP Sarah Johnson EDA Audrey Clarke

#### **Other Attendees**

BLM Marietta Eaton Census James Fitzsimmons EPA Marcy Rockman NASA Dalia Kirschbaum NGA James Jordan NOAA Nell Codner

### Agenda

10:00 Welcome and Introductions
10:05 Approval of March Meeting Minutes
10:10 Report from the Chair
10:20 Report from the Vice-Chairs
10:30 Initial Outcomes from Rebuilding Haiti Workshop
11:00 Presentation: Resiliency and Vulnerability Observatory Network
11:55 Close and Next Actions NSTC Liaison Sarah Johnson (OSTP)

EPA Peter Jutro Stephen Clark FERC Howard Wheeler HUD David Engel NASA Andrea Donnellan NGA Stephen Homeyer Whitney Nelson NGB Daniel Bochicchio NIH Allen Dearry (T) NIST William Grosshandler Jack Hayes NOAA John Gaynor

Margaret McCalla Roger Pierce Tricia Ryan Peter Wiley **NSF** Gregory Anderson (T) Jacqueline Meszaros NSF Dennis Wenger OPHS Sven Rodenbeck (T) State Cari Enav Fernando Echavarria USACE Barbara J. Sotirin Dimitra Syriopoulou USAID Sezin Tokar USDA TBD USFS Carlos Rodriguez-Franco USGS David Applegate Paula Gori

State Brian Lieke USAID Wayne Pennington USFS Mike Hilbruner (T) Secretariat Kate Cantrell Ross Faith

Handouts

- Agenda
- March Meeting Minutes
- Rebuilding for Resilience in Haiti Workshop: Agenda and Key Findings
- NSTC SDR Committee Survey (2009)
- SDR Grand Challenges Overview
- SDR Four Pager for CENR (Historical Document)

## I. Call to Order and Introductions

Subcommittee on Disaster Reduction (SDR) Chair David Applegate (USGS) called the meeting to order at 10:00 a.m. and the participants introduced themselves.

## II. Approval of March Meeting Minutes

The March Meeting Minutes were approved with no changes.

## III. Report from the Chair

Applegate began the Report from the Chair by introducing Kate Cantrell, the new member of the SDR Secretariat team. Cantrell has a Bachelor of Arts from the University of South Florida-Tampa. She was most recently a Project Manager for American Forests in Washington, DC, where she was responsible for overseeing the Urban Ecosystem Center's proposal preparation, contract negotiation, project logistics, deliverables and budgets.

Applegate announced that Sarah Johnson, a White House Fellow with the Office of Science and Technology Policy (OSTP) had been designated as the new National Science and Technology Council Liaison to the SDR.

The SDR is seeking volunteers to participate in an ad hoc working group to draft a lessons learned report on the Haiti and Chile earthquakes. Those interested in participating in the working group should email the Secretariat (ross.faith@mantech.com).

The SDR also will be standing up an ad hoc International Working Group to help focus the subcommittee's efforts as the US National Platform to the UN International Strategy for Disaster Reduction (ISDR). Volunteers are invited to contact the SDR Secretariat (ross.faith@mantech.com).

Applegate reported that he would be briefing OSTP Director Dr. John Holdren later in the week and expected to receive guidance about future activities that the White House would like to see the SDR undertake. Applegate requested that Members send him one or two slides on the science and technology aspects of their agencies' responses to the earthquake in Chile, which Applegate would roll into his briefing to Holdren. Slides should be sent to Applegate (applegate@usgs.gov) or the Secretariat (ross.faith@mantech.com) by COB Tuesday, April 6.

Applegate noted that the charters of all subcommittees of the Council on Environment and Natural Resources had been extended through December, 2010. This aligns with the current SDR charter expiration date.

Applegate recalled that at the SDR's December meeting, Paula Gori (USGS) had recommended that the subcommittee develop a short document to highlight the SDR's purpose and work. The document would serve as an informational "calling card" of sorts for distribution within the Federal community and beyond. Three documents were included in the Members' meeting packets to spark thinking about what information such a calling card should contain. Comments and suggestions should be shared with the Secretariat (ross.faith@mantech.com) by Friday, April 16. A draft version will be prepared for the May meeting.

Andrea Donnellan (NASA) reported on developments flowing from NASA's Earth Observing Missions Applications Workshop, held in February. The Disasters Roundtable is expected to host a follow on workshop on July 8th at the Keck Center in Washington, DC, titled: "From Reality 2010 to Vision 2020: Translating Remotely Sensed Data to Assets, Exposure, Damage, and Losses." The workshop will focus on understanding the relationship between data providers and the data users. Those interested in the planning for the workshop should contact Andrea Donnellan (andrea.donnellan@jpl.nasa.gov).

## IV. Report from the Vice-Chairs

SDR Vice-Chair Dennis Wenger (NSF) reported that the National Science Foundation (NSF) had issued a "dear colleague letter" soliciting proposals under the Rapid Response Research (RAPID) Program for studies on the effects of the January 12 Haitian earthquake and to gather ephemeral data. This invitation received 113 inquiries, and NSF made 26 awards in the civil and environmental engineering, geo-tech and social sciences.

Turning to international matters, Wenger reported that the ISDR is being restructured to include new advisory committees which will conduct biennial global assessments on progress regarding implementation of the Hyogo Framework for Action. Past assessments have tied disaster risk reduction to poverty, climate, and increased vulnerability. Recent discussions included the suggestion that the assessments should incorporate metrics, which would be a tremendous challenge to develop. Nevertheless, moving forward, the ISDR will attempt to develop assessments that are both more quantitative and policy-focused.

SDR Vice-Chair Margaret Davidson (NOAA) discussed the interagency working group on climate adaptation, which is led by the White House Council on Environmental Quality and includes five subgroups. The principle subgroup recommended holding a public listening session on coastal climate change adaptation, and Deputy Director for Climate Change Adaptation, Maria Blair, lent her support to the idea. The listening session will be held as a half-day event in June in Miami-Dade County, Florida, and will include collaboration with the Federal Emergency Management Agency and conceptual input from the SDR. Applegate noted that the event presents a great opportunity to underscore the linkage between climate change adaptation and disaster risk reduction.

Applegate reported that Deb Ingram (FEMA) and a number of individuals from the disaster reduction community were currently attending at the National Hurricane Conference. Ingram has been the lead in focusing the framework document being developed by the Long-Term Disaster Recovery Working Group. Currently under revision, the draft document includes a number of references to the SDR as well as tasks for the subcommittee related to Grand Challenge #5: "Assess disaster resilience using standard methods."

## V. Initial Outcomes from the Rebuilding Haiti Workshop

Applegate reported that key findings from the Workshop "Rebuilding for Resilience: How Science and Engineering Can Inform Haiti's Reconstruction" had been quickly compiled into a single document and, under a tight deadline, distributed up channels at State, USAID and the UN prior to the March 31 International Donors' Conference: "Towards a New Future for Haiti." The document provides recommendations for reconstruction along four main topic areas: hazard assessment, engineering issues, capacity building, and long-term data needs. Applegate thanked Wayne Pennington (USAID) for his many efforts in helping to plan the workshop and draft the document. He acknowledged and thanked Wenger for his role in leading the capacity building breakout session.

Brian Lieke (State) reported that the donors' conference was broadly focused, but resilience was specified as a key issue, and the theme of capacity building seemed to receive traction. Copies of the workshop's key findings were placed on tables at the conference, and by noon it was observed that all copies had been taken. The findings also were posted by the State Department as an online fact sheet.

Cari Enav (State) reported that State had reached out to the Clinton Foundation, which requested more information and had several questions about the key findings. The foundation was particularly interested in developing 5 to 10 construction models, focusing on what is – and is not – viable for Haiti. Enav noted that State will continue to pursue this engagement with the foundation. She also thanked Applegate for serving as the workshop's linchpin.

Applegate responded that the event, in which Enav also had a large planning role, was an effort of many hands as well as a unique opportunity to come together. He stated that he would keep the group updated as things progressed. Presentations delivered at the workshop were being posted on the IRIS website: <u>http://www.iris.edu/hq/haiti\_workshop</u>.

Applegate commented that distribution of the findings at the donor's conference was the first target. He noted that there are several other entities, NGOs in particular, which will be interested in the recommendations. The goal is to ensure that investments from the international community are carried out to build resilience, rather than rebuild vulnerability.

Pennington noted that the workshop was attended by a sizable Haitian delegation of approximately 12 individuals, including Haitian Environment Minister Jean Marie Claude Germain. The delegation's participation was enormously valuable in keeping the workshop on track, providing feedback, and also providing a "reality check."

In fielding a question from the group, Applegate noted that the workshop was held in Miami in part to engage the city's large Haitian Diaspora. With this in mind, a public forum was held on the first evening of the workshop, during which geophysicist Eric Calais (Purdue University) and Haitianborn engineer Reggie DeRoches (Georgia Tech) spoke to Haiti's earthquake hazard and engineering needs. The Haitians in attendance were particularly interested in engineering issues.

Applegate noted that some of the workshop discussion turned on large-scale infrastructure projects. Sven Rodenbeck (OPHS) added that these discussions were indeed helpful in identifying the myriad systems (i.e., highways, water treatment systems, port facilities, etc.) which would need large-scale thinking and planning.

Applegate stated that the workshop's key findings need to reach the vast array of actors and decision makers involved in the reconstruction. Enav echoed this observation and reinforced the importance of distributing the key findings.

## VI. Presentation: Resiliency and Vulnerability Observatory Network

Before introducing the presenters, Wenger provided Members with some background regarding the Resiliency and Vulnerability Observatory Network (RAVON). He recalled that approximately one year ago, Carl Shapiro (USGS) had come to NSF to meet with Wenger and Robert O'Connor (NSF), who was interested in establishing a disaster observatory network that would be focused on, but not limited to, social science. Although disasters themselves tend to be stand alone events and thus fit with difficulty into an observatory concept, the notion of measuring vulnerability was determined to be both useful and practical within the proposed rubric. The next step unfolded at a workshop held at Texas A&M University, where in critical mass several important researchers in the disasters reduction field supported a vulnerability-focused network and the concept of RAVON in particular.

Wenger next introduced Walter Peacock and Philip Berke.

Dr. Walter Peacock is a professor of Urban Planning in Landscape Architecture and Urban Planning and serves as Director of Hazard Reduction and Recovery Center at Texas A&M University. His teaching areas include: planning methods and analysis; planning research methods, hazard mitigation and long-term recovery; and sociology of hazards and disasters. His research interests include urban planning, sustainable community development, natural hazard, hazard mitigation, and long-term recovery quantitative methods.

Dr. Philip Berke is Deputy Director of the Institute for the Environment, Director of the Center for Sustainable Community Design, and Professor of City and Regional Planning the University of North Carolina-Chapel Hill. He teaches courses in land use and environmental planning and policy, environmental analysis and land use planning, and planning theory.

Beginning the presentation, Peacock expanded on the RAVON concept by positing that modern society had entered a new era of catastrophes. Advancing the argument that a mega-catastrophe is clearly in the realm of possibilities, he pointed to the extraordinary increase in losses from hazard impacts over the last few decades, noting that multi-billion dollar disasters have become the new norm. He also mentioned the upswing, though quite recent, in loss of life.

Peacock stated that disasters are still being treated as acute events rather than chronic problems resulting from interaction between biophysical systems, human systems and the built environment. He underscored this point by fingering human action (or inaction) as the key factor driving these trends. People, he noted, continue to develop and expand into high hazard areas, which increases hazard exposure in addition to destroying natural resources, such as wetlands.

As a case in point, Peacock stated that a planning atlas had been developed to guide projects for increased resiliency along the Texas coast and particularly to "fortify" Houston from hurricane-borne storm surge. The atlas was used to support a proposal for the construction of a 17-foot-high wall stretching some 60 miles along the coast and straddling the narrow entrance to Galveston Bay with 1,000-foot-long floodgates. Dubbed the "Ike Dike" after the hurricane that ravaged the Houston area in September, 2008, the project has received support from several Houston-area leaders as a "brick-and-mortar" approach to ending the annual hurricane threat to Houston once and for all.

The proposed "Ike Dike" project does have its share of detractors among environmentalists and experts in the disaster reduction field. Peacock characterized the project as one based on stale "solutions" that have neither withstood the test of time nor the elements of nature. He urged that planners should seek solutions to disaster impacts by acknowledging and grappling with what they truly are – hard problems woven of difficult, cross-cutting issues.

Peacock stated that solutions focused on short-term technological fixes, such as levees, sea walls, and beach reconstruction programs, can have detrimental environmental consequences and promote increased development – and therefore vulnerability – behind a veil of false security. When these near-sighted fixes are breached, the ensuing planning process consumes massive infusions of external public and private resources and all too often results in the reproduction of preexisting vulnerabilities.

Peacock stated that many communities are headed in the wrong direction – that is, becoming more vulnerable and less resilient. Despite advances in hazards and disaster research, he noted that current programs and approaches are not adequate for addressing fundamental and critical issues in resiliency and vulnerability science.

Myriad obstacles encumber the path of advancement in vulnerability and resiliency science. Current funding mechanisms almost exclusively support one-shot case studies of limited duration and preclude the ability to monitor change in resiliency and vulnerability, thereby hindering the development of models that explain change over time. Independent studies too often fail to replicate measurement protocols of common concepts and limit comparability across data collection efforts. Most studies only offer partial views of place and fail to capture the full complexity of coupled socio-ecological systems. Many independent data collection programs in the public and private sectors are poorly coordinated and often inaccessible or difficult to access, which constrains data sharing among researchers and use by practitioners.

RAVON would close gaps in vulnerability and resiliency science by:

- supporting development of long-term longitudinal data sets
- investing in the development of data collection protocols to ensure comparable measurement in multiple socio-political environmental settings and across multiple hazards
- building on and complementing existing data collection efforts and activities in the public and private sectors
- enhancing the sharing of data throughout research and practice communities

Peacock contended that RAVON is consistent with several previous social science studies, reports and assessments produced by bodies such as the National Research Council, National Science Board, NOAA, and USGS. The vision for RAVON is an observatory network that propels exemplary research to build the capacity of people and communities to withstand and rapidly recover from environmental extremes. Its proposed mission is to provide the research community, policy makers, and society with the knowledge and the predictive understanding necessary to reduce vulnerability associated with natural hazards and enhance the resiliency of individuals and communities.

For the purposes of the presentation, Peacock offered some working definitions.

- **Hazard vulnerability** is characterized as being a function of hazard exposure and physical characteristics.
- **Hazard** is generally defined in terms of the likelihood that events (earthquakes, hurricanes, etc.) of different magnitude and scope will impact a particular area.
- **Vulnerability** is generally defined in terms of the damage to the built environment that will be sustained from each of the hazard events (NRC 2006:72-3).
- Social vulnerability is an added critical dimension of vulnerability, defined as the capacity
  of individuals or social systems to anticipate, cope, resist and recover from the impacts of a
  hazard agent (Blakie et al. 1994; Heinz Center 2000). Social vulnerability is shaped by social
  structures and processes that determine access to scarce resources (income, wealth, social
  capital, power and housing), cultural factors (belief and customs), and driving forces such as
  urbanization and demographic change.
- **Resilience** is defined as the ability of social systems, along with the bio-physical systems upon which they depend, to resist or absorb the impacts (deaths, damage, losses, etc.) of natural hazards, rapidly recover from those impacts and reduce future vulnerabilities through adaptive strategies.

Peacock continued by asserting that the very nature of vulnerability and resiliency demands an observatory network. He noted that the NSF had undertaken major investments in establishing environmental observatories such as the Long Term Ecological Research Network (LTER) and the National Environmental Observatory Network (NEON), which focus on the structure and dynamics of the biophysical environment and its systems related to resiliency and sustainability issues. He stated that the lacking element is an observatory network focused on the nature and dynamics of the

social systems and their built environments which dramatically impact the bio-physical environment and its systems.

Peacock then turned the floor over to Philip Berke, who continued the presentation. Berke specified that the cross-cutting research parameters for RAVON are: a focus on natural disasters, enhancement of interdisciplinary research, the promotion of comparative research, and emphasis on social vulnerability issues. RAVON's proposed research agenda includes conceptual clarification, monitoring, modeling and evaluation, data sharing and dissemination, and post-event research.

RAVON covers three focus areas, the first of which is mitigation. Mitigation generally refers to actions which are undertaken before hazard impact to limit or prevent loss at the time the impact occurs (NRC 2006:86). Examples of structural actions are building levees and dams (Burby 1998). Non-structural actions are related to land use planning and building codes (Burby 1998).

The second focus area is risk assessment, perceptions and management strategies. Risk assessment focuses on estimates by scientists and engineers on the likelihood and consequences of disasters. Risk perception focuses on how individuals, groups and organizations view risk and how these perceptions differ from those of experts. A question to be investigated is: Do risk assessments account for social vulnerability of different population groups?

Recovery and reconstruction is the third focus area. Recovery and reconstruction remains the most understudied area in disaster research. Without a more complete understanding of recovery and reconstruction, key dimensions of resiliency will remain missing. Questions for investigation include: Does the recovery process differ by type of housing and tenure? What are the impacts of housing aid programs?

A more standardized, holistic approach, with organized work and monitoring over time, is needed. The guiding principles for data collection activities are time dimension, standardization, comprehensive and representative views of place, building on existing efforts, and data sharing.

Peacock added that there are many examples of structure and governance, such as the National Center for Ecological Analysis and Synthesis (NCEAS, <u>http://www.nceas.ucsb.edu/</u>); the Long Term Ecological Research Network (LTER, http://www.lternet.edu/sites/lno/ or <u>http://lno.lternet.edu/</u>); and the National Environmental Observatory Network (NEON, <u>www.neoninc.org</u>). RAVON would consist of a network of nodes, encompassing regional, thematic, and living laboratories. The governance structure could include a national executive committee, a technical directorate, an advisory committee, and technical sub-committees.

The regional nodes would carry out coordinated data collection activities with a degree of autonomy to engage in unique research activities. There would be a core set of research activities, coordinated across the network, with universities and research centers serving as coordinating hubs. The thematic nodes could be supported by existing centers or mission-based agencies, such as the USGS, which are currently engaged in activities and could directly support the mission of RAVON. The living laboratory nodes would presumably be established in areas impacted by past disasters and vulnerable to future ones. These nodes would be established by agreement of the entire network.

The criteria for the regional nodes include having a resident group of researchers with a track record of producing quality research and links within the disaster reduction community. Establishment of a regional node would require a commitment by researchers and/or the supporting institution that the research would be robust and sustained over a period of decades. Regional nodes would be

distributed in a manner that canvases the country to cover multiple hazard types, areas with chronic low level disasters, communities that have experienced high impact disasters in the past, and places at risk for low probability but high impact events. The nodes would also need to be distributed across socio-political environments (i.e., legal, political, socio-economic, cultural, and demographic characteristics).

RAVON is at the conceptual stage, and the NSF and USGS have funded the initial conceptual development. A workshop to more fully develop the concept is being planned. Funding has also been allocated for a related program: "Living Laboratory: Galveston and Ike Recovery." The National Academies have sponsored a roundtable on Science & Technology for Sustainability titled *Transiting to Sustainability: The Challenge of developing sustainable urban systems* (http://sustainability.nationalacademies.org/Urban.shtml). The Academies also have been working on related projects with the National Research Council and the National Earthquake Hazard Reduction Program (NEHRP). The presenters noted that further progress will require multi-agency participation and coordination.

In summary, the presenters stated that RAVON offers the possibility of transforming the nature of research on natural hazard vulnerability and disaster resiliency. The proposed observatory network provides a mechanism for dramatically altering the nature of resiliency and vulnerability science by providing opportunities to develop comprehensive long-term data sets in multiple locations that will make possible temporal and comparative investigations that researchers will never be able to undertake given normal funding opportunities and structures.

With a focus on the structures and dynamics driving anthropomorphic environmental changes, the presenters stated that RAVON offers a necessary and fundamentally important complement to our nation's existing environmental observatories. The science of resiliency and vulnerability will undoubtedly progress without RAVON, but progress will be slow, fitful and, given ever accelerating losses, painful. RAVON provides the possibility of generating solid science that can better inform and promote more resilient communities in the future.

Peacock closed the presentation and the floor was then opened to questions.

Davidson offered her enthusiasm for the topic, and stated that a consortium approach would be necessary. She remarked that people will say what they think others want to hear, not what they really think, and that part of the failure to communicate is not just in the phrasing, but also in the delivery. She reported that she is trying to persuade the Office of Sustainability in the Department of Housing and Urban Development to think about public housing and relocation with regards to resiliency. She also stated that NOAA should be a co-funder and participant in the group supporting RAVON.

During the question and answer period, the themes of social and environmental justice were raised. It was suggested that the RAVON concept should not only confine its research to natural disasters, but also include issues of vulnerability to terrorism.

In responding to concerns that RAVON findings would only be useful if the user community was involved from the beginning, Berke stated that a critical aspect to RAVON's success would be having a clear plan regarding collaboration and upfront consultation with user groups and stakeholders during the project's infancy.

Paula Gori (USGS) voiced concern that researchers often prefer to work in an atmosphere of autonomy on the frontiers of science. By mandating that the RAVON observatories follow a certain protocol, she worried that the project might fail to attract the best and brightest young researchers. Peacock responded that limited data is an inhibitor in doing the kinds of things they want to do. He remarked that a lot of innovation regarding the data can be accomplished and that reassessment and critique would be constant.

Responding to a concern that data infrastructure will be needed to create scale for scientists to see patterns, Berke stated that there would be an accumulative system of knowledge and data. Peacock remarked that data collection must be ongoing in order to be effective.

Addressing an observation that social science data needs may not be easy to determine, Berke noted that at the Texas A&M workshop, geologists were interested in tracking social vulnerability, and the impacts and the performance of strategies. Peacock commented that collection of data would be triangulated over time and that significant effort would indeed be required to develop a long-term research agenda.

Fielding a question about how RAVON's success would be measured, Peacock stated that there are a variety of metrics, protocols, and longitudinal data-sets which could be employed.

Asked for their thoughts about how RAVON could support implementation of science-based, behavior- changing public policy, Berke responded that there are metrics that can be tracked, such as mitigation plans, land use plans, and vulnerability assessments. By tracking zoning and rules over time, it may be possible to determine whether local policies have indeed changed over time. Peacock commented that there are some success stories of communities reducing their vulnerability which could serve as templates for spreading resiliency, but more information is indeed needed. Beyond the research challenge is the need for communication strategies and the political will to implement the necessary policy changes.

Davidson suggested that RAVON's structure should include a "needs and implementation" committee to parallel the funding committee.

Wrapping up the discussion, Applegate thanked Peacock and Berke for their presentation. He remarked that the content cuts across the interests of a number of different agencies.

The RAVON presentation is available for download from the SDR Members Only website <u>http://www.sdr.gov/formembers.html</u> (username SDR.member; password SDR#2003. including the period at the end).

For more information about RAVON and the presenters' citations, contact Philip Berke (pberke@email.unc.edu) and Walter Peacock (wgpeacock@gmail.com).

## VII. Adjournment

The meeting adjourned at 11:50 a.m.

## VIII. Future Meetings

The SDR meets on the first Thursday of every month from 10 a.m. to 12 p.m. unless otherwise noted.

\*Note: The SDR's 2010 meetings are scheduled to be held at the White House Conference Center.

May 6, 2010	August 5, 2010
June 3, 2010	September 2, 2010
July 1, 2010	October 7, 2010

November 4, 2010 December 2, 2010

## 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 Ross Faith (ross.faith@mantech.com).

## X. Contact Information

### **SDR Leadership**

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Dennis Wenger	Vice Chair	703-292-8606	dwenger@nsf.gov
Secretariat			
Ross Faith	703-388-0308	Ross.Faith@ManTech.com	
Kate Cantrell	703-485-8053	Kate.Cantrell@ManTech.com	

## XI. Summary of April Actions

Action	Lead	By When
Let Ross (ross.faith@mantech.com) know if you are interested in participating in an ad hoc Haiti-Chile Lessons Learned Working Group.	SDR Members	ASAP
Let Ross (ross.faith@mantech.com) know if you are interested in participating in an ad hoc SDR International Working Group.	SDR Members	ASAP
Send Dave (applegate@usgs.gov) or Ross (ross.faith@mantech.com) one or two slides highlighting agency S&T response to the Chile earthquake.	SDR Members	Tuesday, April 6
Let Ross (ross.faith@mantech.com) know if you have any comments or feedback regarding the development of a new "calling card" document.	SDR Members	Friday, April 16
Send Sezin Tokar your ".gov" e-mail address to receive USG-only updates from USAID on global disaster response activities. ( <i>stokar@usaid.gov</i> )	SDR Members	Standing
Contact Ross to receive copies of the Grand Challenges for Disaster Reduction Implementation Plan packets or CD. ( <i>ross.faith@mantech.com</i> )	SDR Members	Standing
Let Dave or Ross know how you use the implementation plans, including when you link to the plans from your agency websites. Send Ross or Dave additional distribution suggestions, including relevant contact information. ( <i>ross.faith@mantech.com</i> )	SDR Members	Standing