# Meeting Notes of the Grand Challenges Task Group

Subcommittee on Disaster Reduction, 28 May 2004, 1:30 p.m. to 2:45 p.m., National Science Foundation

## Update to include grid notes

## Attendees

Names of absent members are indicated in italics. Members participating via telephone are indicated with a "T."

#### **Biological/Ecological**

Josephine Malilay (CDC, T) Nathalie Valette-Silver (NOAA, T)

**Drought** Pai-Yei Whung (NOAA) *Phil Pasteris (USDA)* 

**Earthquakes** Dave Applegate (USGS, T) Steve McCabe (NSF, T) Fire Sue Conard (USFS, T) Dave Evans (NIST)

Flood Dennis Wenger (NSF) Andy Bruzewicz (USACE)

Severe Weather John Gaynor (NOAA, T) Shahid Habib (NASA)

**Technological** *Regan Murray (EPA)* Josephine Malilay (CDC, T) Volcano Roz Helz (USGS) Grace Swanson (NOAA)

**Co-Chairs and Secretariat** Priscilla Nelson (NSF) Noel Raufaste (NIST) Dori Akerman (GRS)

**Other Attendees** John Filson (USGS, T) Fritz Policelli (NASA, T)

## Handouts

Agenda, Hazard Grids

## **Meeting Notes**

Grand Challenge co-chairs Priscilla Nelson and Noel Raufaste began the meeting with a round of introductions. With the exception of the volcano team, each hazard team was represented by at least one team leader.

Ms. Nelson acknowledged team members for their participation and the results produced to date. She expressed delight with the work completed to date, and reminded members that there is more work to be done. She encourages everyone to read through the hazard grids prior to the meeting and be prepared to discuss the material during the off-site. In an effort to reduce the overall size of the document, it was suggested that efforts be made to identify cross-cutting issues that were prevalent throughout the document and to highlight those areas as key priorities. Mention also was made that more input was needed on the part of social scientists and there was a need to facilitate private industry partnerships and more interagency activity.

#### Drought

Pai-Yei Whung briefly outlined the drought team's accomplishments and described some of the key findings of the team. She also entertained a discussion of the workforce considerations implicit in drought issues. **Actions:** (1) Pai-Yei Whung will review the Western Governors' Association report and the new drought bill to find additional material for the drought matrix, as appropriate; (2) Pai-Yei Whung will consider adding additional information about the NOAA intentions for a seamless suite of weather and climate prediction capabilities.

## Earthquakes

The earthquake team was able to derive some requirements issues from previously drafted scientific and engineering reports. They acknowledge that the needs for earthquake structural monitoring exceeds just seismic activity and other equipment is needed to fulfill their objectives. Discussion surrounded the need for public outreach, but emphasized that targeting policy makers would be effective. Noted that they want to turn away from the term predictive when speaking about earthquakes and will use different terminology. Also indicated a weakness in the social science perspective.

Actions: (1) Ensure involvement by NSF, NIST, FEMA, and USGS; (2) Include social sciences in the grid; (3) Enhance references to NEES and NEHRP; (4) Steve McCabe will include mentions of performance-based designs for life and economic safety; (5) Reference opportunities for reaching policymakers; (6) In the matrix, clarify the term "prediction" in an earthquake context; (7) Request Craig Dobson (NASA) review of the matrix; (8) Recommend including geo-technical engineers.

### Fire

There is some overlap between flood and fire and there will be cross-over between issues such as drought, severe weather, sediment, fire and other hazards. The strawman will attempt to capture this cross-over. It was agreed that costs were difficult to assess with respect to fire since the cost of recovery is not always a set number and the value of property and resources is not always a known quantity. They will work with other Federal agencies such as NASA, NOAA, NSF and others in order to generate better numbers. Wildland fire is addressed in the matrix, but is not seen as a major issue.

**Actions:** (1) Include additional information about fire detection; (2) Include additional references to fire-resistant materials; 3) Dave Evans will expand the matrix to include references to Urban and WIU fires; (4) All hazard team leaders will identify the Federal research and development expenditures for their hazard, including both the actual dollars spent and the actual costs.

#### Flood

Dennis Wenger stated that he is available to assist with the Social Science part of the cross-cutting analysis. Pricilla mentioned that she liked some of the ideas that were presented in this submission, such as addressing risk assessments for Federal facilities and critical structures.

Actions: (1) The Secretariat will send the latest edition of the grid to all team leaders; (2) Dennis Wenger and Andy Bruzewicz will include model names as examples in the text.

## **Public Health and Ecological Hazards**

Dr. Josephine Malilay stated that after some discussion, they have agreed to change the title of Biological/Ecological to Public Health and Ecological Hazards. They feel the new title better captures the work that they are doing. The new definition for this group is "Hazards that threaten the health of humans and the ecological systems.

Action: Sue Conard will connect Nathalie Valette-Silver to appropriate USFS contacts.

## **Severe Weather**

Severe weather was divided into three sections: cool weather, warm weather, and cross-cutting. This format was selected to sub-divide the weather types, but also to acknowledge the aspects that applied to both areas. They received input from several other agencies, such as NASA and NOAA, but still require

additional inputs. Some of the cross-cutting issues were a need for improved communications, interfaces and tools.

Actions: (1) [Complete] John Gaynor will add Tsunami information; (2) [Complete] John Gaynor will contact Joe Golden, Nick U; (3) John Gaynor will contact additional individuals at FEMA for feedback and will follow-up with Priscilla Scruggs.

## Technological

[Complete] Action: Dori will connect Regan Murray to Russ Doughty; (2) Nathalie Valette-Silver will provide NOAA contacts for Hazmat.

## Volcano

Neither Volcano team leader was present; the report was delayed until the 28 May 2004 meeting.

## Other Items

Discussion surrounded the need for performance measures similar to the NITRD report. It may be a good idea to establish indicators of the programs success and completion points/decision points.

## **Next Actions**

Materials will be distributed at the June 3 meeting for comments.

Request volunteers for assistance with the multi-hazard aspect of the report

Review for integrated themes, look at outreach and implementation opportunities, identify innovations and unique facilities, virtual reality and animation opportunities

# **Meeting Actions**

Action	Lead	By When
Secretariat will send the document management table.	Secretariat	Complete
Noel Raufaste will invite his contact at the Department of	Noel Raufaste	Complete
Transportation to participate on the hazard teams.		
Josephine Malilay and Nathalie Valette-Silver will	Josephine Malilay,	21 May 2004
recommend a new name for the Biological/Ecological	Nathalie Valette-	5 p.m. ET
hazard category.	Silver	
Nathalie Valette-Silver will resend the Ecological table after	Nathalie Valette-	21 May 2004
expanding the content beyond Harmful Algal Blooms.	Silver	5 p.m. ET
Dennis Wenger will contact Doug Ryan at the U.S. Forest	Dennis Wenger,	21 May 2004
Service. Secretariat will send contact information to Dennis	Secretariat	5 p.m. ET
(complete).		
Pai-Yei Whung will coordinate the creation of a drought-	Nathalie Valette-	28 May 2004
specific hazard table	Silver	5 p.m. ET
Dennis Wenger will send the updated flood table to the	Dennis Wenger,	Complete
Secretariat. Secretariat will distribute.	Secretariat	
John Gaynor will send a separate landslides table to the	John Gaynor,	Complete
Secretariat. Secretariat will distribute.	Secretariat	
Team leaders and the Secretariat will change the name of	Secretariat	Complete
hazard category "Severe Storms" to "Severe Weather." Also,		
"Wildland Fire" will become "Fire."		
Secretariat will provide contact information for key	Secretariat	Complete
individuals on the NSTC subcommittee dealing with		
technological issues.		
Hazard team leaders will prepare final editions of the hazard	Hazard Team	28 May 2004
grids by 28 May 2004 at 5 p.m. Preview copies of those	Leaders	5 p.m. ET
grids will be sent to the co-chairs by 27 May 2004 at 5 p.m.		