Measurement Science R&D Roadmap

Windstorm and Coastal Inundation Impact Reduction

Workshop Agenda

Wednesday, June 13, 2012

8:00 -- 8:30 **Registration, Continental Breakfast**

8:30 – 8:40 **Welcome, Housekeeping, Plan for the 2 Days – Bill Coulbourne (ATC)**

8:40 – 9:30 **Overview of NIST and Engineering Laboratory – and Charge to Workshop Participants - Shyam Sunder (NIST)**

9:30 – 9:45 **NSF's Role in Research - Kishor Mehta (NSF)**

9:45 -- 10:00 **Introduction of the Research Focus Areas – Marc Levitan (NIST)**

10:00 – 10:15 **Break**

10:15 – 10:45 **1st Technical Plenary – Disaster Resilience of Building, Infrastructure, and Communities– Steve Cauffman (NIST)**

10:45 – 10:50 **Instructions for Morning Breakout Sessions – Bill Coulbourne (ATC)**

10:50 – 11:50 **Break-Out Sessions - Future Vision of Resilient Communities and How We Get There**

For the first breakout sessions, each pre-assigned group will define what they think constitutes a disaster resilient community, how this community would be identified or defined, and the gaps in current knowledge that need to be addressed to enable disaster-resilient communities.

11:50 – 12:20 **Resilience Groups Report Out**
Plenary Meeting Room

12:20 – 1:00 **Lunch**

1:00-1:45 **2nd Technical Plenary – Moving Toward Performance-Based Design for Wind: Larry Griffis (Walter P. Moore)**
Chris Letchford to introduce Larry Griffis

1:45-2:15 **3rd Technical Plenary – R&D Challenges for Coastal Inundation Impact Reduction: Gary Chock (Chock and Martin)**
Chris Jones to introduce Gary Chock

2:15 – 2:20 **Instructions for Afternoon Breakout Sessions – Bill Coulbourne (ATC)**

2:20 – 5:05 Break-Out Sessions – by Discipline Groups
Breakouts into the five pre-assigned discipline areas listed below for identification of gaps in current knowledge and research needs. Use literature search document as background for gaps in knowledge and research needs identified by other groups over the last 10-15 years. Wind groups also discuss possible Grand Challenge needs.

(Moderators for each group shown in italics)

Room A – Wind hazard group *(Chris Letchford)*
Room B – Wind loading group *(Jon Galsworthy)*
Room C – Wind resistance group *(Tom Smith)*
Room D – Flood hazard group *(Chris Jones)*
Room E – Flood loading and resistance group *(Bill Coulbourne)*

3:15 – 3:30 Break (take at leisure)

5:05-5:15 Organization for Tomorrow – Bill Coulbourne (ATC)
Plenary Meeting Room

5:15 Adjourn
Shuttle buses will take participants back to the Sheraton Hotel

Thursday, June 14, 2012

8:00 -- 8:30 Continental Breakfast

8:30 – 9:40 Discipline Groups Report Out Including Grand Challenge Ideas
Plenary Meeting Room

9:40 – 9:45 Instructions for Morning Breakout Sessions – Bill Coulbourne (ATC)

9:45 – 11:45 Break-Out Sessions – Crosscutting by Program Element
Groups will change for Day 2 as the focus will shift. Participants are pre-assigned to one of the five areas listed below; corresponding to the program elements adapted from ATC 57 approach and will be provided summaries of the Resilience and Disciplinary breakout group research needs lists. Each group must identify the Top 10 research needs for their assigned program element.

(Moderator for each breakout group shown in italics)

Room A – Provide technical support for windstorm and coastal inundation engineering practice and code development process. What specific technical support is needed by the committees that develop model codes and the standards upon which the model codes depend? (*Chris Letchford)*

Room B – Develop the technical basis for performance-based windstorm and coastal inundation engineering by supporting problem-focused, user-directed research and development. What research is required to develop the technical basis for performance-based design for windstorms and coastal inundation? (*Jon Galsworthy)*

Room C – Support the development of technical resources (e.g., guidelines and manuals) to improve windstorm and coastal inundation engineering practice. What new technical resources are needed by practitioners? What research and development must be done in order to provide these resources? (*Chris Jones)*

Room D – Make evaluated technology available to practicing professionals in the windstorm and coastal inundation design and construction communities In what ways should evaluated technology be made available to practicing professionals in the windstorm and coastal inundation design and construction communities? On what current topics is significant research reported in the literature but needs to be evaluated and coalesced into a single document designed for use by practitioners. (*Tom Smith)*

Room E – Develop the technical basis for windstorm and coastal inundation engineering to support community resilience within an all-hazards framework Building on the discussion in Day 1 on community resilience, what research is needed to define, measure, and provide the basis for improvements to the resilience of buildings, infrastructure, and communities for windstorms and coastal inundation? (*Horia Hangan)*

10:00 – 10:15 Break (take at leisure)

11:45-12:15 Lunch

12:15 – 2:00 Report Out and Discuss Top 10 Research Projects per Program Element
Plenary Meeting Room

2:00 -- 2:30 Breakout Session - Fine-Tuning Research Priorities
Return to morning breakout rooms

2:30 - 2:45 Break

3:00 –3:55 Discuss and Prioritize Overall Top 15 Research Projects
Plenary Meeting Room

3:55 – 4:00 Workshop Closing Remarks – Marc Levitan (NIST)

4:00pm Adjourn
Shuttle buses will take participants back to the Sheraton Hotel