

TRANSPORTATION RESEARCH BOARD
95th ANNUAL MEETING
AFP10(1) - SUBCOMMITTEE ON ROCKFALL MANAGEMENT

MEETING MINUTES

The meeting was convened in the Marriott Marquis, Cherry Blossom Room, Washington, D.C., at 7:30 P.M. Sunday, January 10, 2016. Sixty three people signed the attendance sheet which is attached.

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1. INTRODUCTIONS

The meeting began with self-introductions. This year's agenda was discussed. No changes were proposed.

2. 2015 MINUTES

The 2015 minutes were accepted.

3. SUMMARY PAST SUBCOMMITTEE AND RELATED ACTIVITIES

- Subcommittee Chairman Transition. The chairman position for the Rockfall Subcommittee was passed from John Duffy to Ben Arndt. John was thanked for his numerous and distinguished years of volunteering and work as the chairman.
- Jay provided farewell thoughts on his tenure at TRB and establishment of the rockfall subcommittee in 1994. Jay was also thanked for his numerous and distinguished years of volunteering and work with TRB which was greatly appreciated throughout the years.
- The AEG Rockfall Short Course featuring the rockfall computer model RAMMS was presented by John Duffy and James Glover.
- The 2105 Mid-Year Meeting at HGS in Sturbridge, Massachusetts was presented by Peter Ingraham.
- The nearly complete and submitted Guidelines for Certification and Management of Flexible Rockfall Protection Systems, NCHRP 24-35 was presented by David Stanley and Ben Arndt
- AGHP presented slope access and climbing class to be concurrent with HGS activities in Colorado Springs.

4. SUMMARY OF FUTURE SUBCOMMITTEE AND RELATED ACTIVITIES

- 2016 Engineering Geology Committee Meeting AFP10 by Ty Ortiz
- 2016 Geotechnical Asset Management Subcommittee Meeting AFP10(2) by David Stanley
- 2016 Highway Geology Symposium – Colorado Springs, Colorado by Ty Ortiz
- 2017 3rd North American Symposium on Landslides – Roanoke, VA by Keith Tuner

5. PRESENTATIONS

Five informative presentations were given that included:

- *Attenuators and Barrier Design – Beyond the Kinetic Energy Race* James Glover
- *Probabilistic Rockfall Hazard Assessment* Matthew Lato
- *GInSAR and sub-surface monitoring options* John Metzger
- *Maintenance and Inspection of Flexible Rockfall Barriers Austrian Approach* Gernot Stelzer
- *Experiences Implementing Rockfall Barriers In Linear Infrastructures* Roberto Luis

6. ROCKFALL RESEARCH NEEDS AND FUTURE SESSION TOPICS

Rockslope and Rockfall Design:

After the presentations and break there was a group discussion for future research needs and possible session topics. One item that Ben Arndt and John Duffy had been working on was a survey to address current design methods and practices for rockslopes. As part of the process, a survey monkey was put together to poll practitioner's in the field of rockslope and rockfall design with fifteen (15) questions. The questions attempted to shed light on design protocols, references, standards, and standards of practice. Approximately 75 people responded to the initial survey. A follow up survey five (5) questions was also sent out based on discussions during the subcommittee meeting. The discussion generated much interest and input for the subcommittee.

Research Needs Statement (RNS)

Resulting from the rockslope design discussion a RNS was developed by members of subcommittee and presented to the parent committee and is currently posted as:

- *Procedures to Develop Defined Metrics and Protocols Using Existing Rockslope and Rockfall Design Guidelines within Corridors for Mitigation of Rockfall and Rockslides*

Proposed Sessions and Topics

- Discussions regarding possible sessions and workshops.

10. ADJOURNMENT

The meeting was adjourned with further discussion occurring after 10 P.M. End of a productive meeting and well attended with 63 attendees.