SEI/ASCE TECHNICAL COMMITTEE ON TALL BUILDINGS

2005 Structures Congress, New York, NY
Annual Meeting, Friday April 22, 2005, 6:00 pm
New York Hilton

Attendees: Robert McNamara, Bradley Young, Yukio Tamura, Jon Galsworthy, Rachel Bashor, Ahsan Kareem, Tracy Kijewski-Correa, Ali Memari, Kaisar M. Sattar, Emil Simiu, Elizabeth English, Sofia Pechorskaya, Steven Camposano, Craig Leech, Jacob Grossman, Roy Denoon

1. Meeting called to order at 6:10 pm.

2. Introduction of members and visitors.

3. Approval of minutes from meeting during 2004 Structures Congress in Nashville, TN.

4. Sessions for St. Louis Structures Congress: deadline is May 6 for proposal of sessions. Need only page summarizing the session contents and four speakers with 2-3 sentences on each speaker and how their paper relates to the session topic. Can be submitted directly via ASCE Website. Possible sessions include:

    a. "Dichotomy of Wind and Earthquake Engineering Design" (was initially proposed by Finley Charney and Robert McNamara) is still of interest in light of recent East Coast adoption of IBC. May be crafted as a panel discussion. However, no committee members can commit to its organization at this time.

    b. "Analysis, Design and Construction of Tall Buildings" (Peter Irwin to organize)

    c. "Role of Damping in Reducing Wind-Induced Response" (Jon Galsworthy to organize)

    d. E. Simiu interested in proposing session on wind tunnel testing of tall buildings or effects of torsion on wind-induced response.

5. Subcommittee on motion perception issues has been formally proposed and submitted to ASCE for approval. This subcommittee is being headed by Roy Denoon. Immediate product of the committee will be a document for designers. Subcommittee will operate in conjunction with the Wind Effects Committee.

6. Subcommittee on full-scale monitoring has also been proposed. Jon Galsworthy is organizing the proposal for this subcommittee. The document coming out of the subcommittee would provide guidance and recommendations on establishing full-scale monitoring programs (instrumentation, etc.). T. Kijewski-Correa also mentioned the guidelines being set forth by ISHM-II and ASCE Committee on controls is now being expanded to include health monitoring. May be useful to coordinate with these groups as recommendations are developed. [ASIDE: E. Simiu questioned if monitoring could be done externally without an owner's permission. What is the legal basis?]

7. Earlier today, panel on Robustness and Redundancy sponsored by this committee was held and very well-attended.

8. New developments in the tall buildings community: Update on Burj Dubai by Bradley Young of SOM. Primarily a residential structure with modularized design and y-shaped plan. Height is over 2000', spiraling setback scheme. Tower is 3 million square feet. Building is 90% RC, spiral is steel space frame. Wind tunnel tests by series of force balance models followed by aeroelastic testing. Predicted accelerations of 24-25 milli-g's for top office. Top residential will be 6.9 milli-g's due to its lower elevation. Damping assumed 1.5%. Discussed reverse stack effect due to desert climate. Drifts were constrained to H/600 for concrete portion of structure. Periods: ~11 s, ~10 s, 4.3 s. Some early construction photos were shown. Slated completion is 2008.

9. Committee website was unveiled with link located at www.nd.edu/~dynamo. Committee members encouraged to submit materials for the website.

10. Sofia Pechorskaya is interested in any courses that have been developed for tall building design. T. Kijewski-Correa to forward her syllabus for Structural Systems course at Notre Dame.

11. Meeting was adjourned at 7:20 pm.

12. Members of tall building committee then joined the meeting of Wind Effects Committee at 7:25 pm to discuss new joint subcommittee headed by Roy Denoon. It was spectulated that ExCom is planning to approve the subcommittee at the next meeting (which should be in approximately 2 months).