

10th U.S.-Japan Workshop on the Improvement of Structural Design and Construction Practices

Makena, Maui, Hawaii • June 30 – July 2, 2003

REGISTRATION INFORMATION AND PRELIMINARY PROGRAM

The Purpose of the Workshop is to provide a forum for the interchange of ideas and information relating to the improvement of current building design and construction practices in the United States and Japan. The special focus of the workshop will be on seismic design and blast effects mitigation.

The workshop is the 10th in a series started in 1984, and repeated every two years. Previous workshops have been held in Honolulu and Kona, Hawaii, Kobe, Japan, San Diego and San Francisco, California, Tokyo, Japan, and Victoria, British Columbia.

Workshop Program. The workshop program has been designed for practicing structural engineers and researchers, and will include presentations by participants from both countries. Presentations and panel discussions are planned on the following topics.

- ◆ Performance-Based Design Developments, Problems, and Opportunities
- ◆ Innovative Applications of Seismic Isolation and Damping
- ◆ Techniques and Case Studies to Harden Structures Against Blast and Terrorist Attacks
- ◆ New and Future Trends in Structural Engineering
 - The Design Office of the Future
 - Social and Environmental Issues, including Global Warming and Green Construction
 - Educational Requirements for Professional Engineers

The closing ½-day of the workshop will feature working group discussions to identify and summarize significant workshop findings and recommendations.

Workshop Dates and Location

June 30 thru July 2, 2003



Maui Prince Hotel
5400 Makena Alanui
Makena, Maui, Hawaii
Phone: 1-800-321-6284
www.PrinceResortsHawaii.com

Hotel Reservations. A block of guest rooms is being held at the Maui Prince Hotel at the rate of \$158 for a single or double occupancy room. For room reservations, contact the Maui Prince Hotel directly (1-800-321-6284) and reference ATC. A reservation form can also be downloaded from ATC's web site (www.ATCCouncil.org) and faxed to the hotel.

Workshop Proceedings. Papers presented at the workshop will be published in the preprints, which will be distributed at the workshop. The technical papers and working group discussions will be published and distributed in formal proceedings after the workshop.

Workshop Registration. The workshop registration fee is US\$250 (\$200 for ATC Subscribers with verification of current subscription) and includes Workshop Preprints, luncheons, and coffee breaks. A late fee of US\$25 will be imposed on registrations postmarked after June 16, 2003. Persons interested in registering for the workshop should complete, detach, and submit the Workshop Registration Form to ATC.

10TH U. S.-JAPAN WORKSHOP REGISTRATION FORM



NAME(S) _____

ORGANIZATION _____

ADDRESS _____

CITY/STATE/ZIP CODE _____

BUSINESS PHONE AND FAX NUMBERS _____

E-MAIL: _____

Please enroll me as an ATC Subscriber (\$35 per year, Individual rate) \$ _____

Seminar Registration Fee: \$250 per registrant (\$200 for ATC Subscribers) \$ _____

Late Registration Fee: add \$25 per registrant (if postmarked or faxed after June 16, 2003) \$ _____

TOTAL ENCLOSED: \$ _____

Payment may be made by check or credit card (MasterCard or VISA). If paying by credit card, please provide the following information: MasterCard VISA # _____ Exp: _____ / _____

Cardholder's Signature: _____

Checks should be made payable to ATC. Please mail your completed form with the appropriate payment, or fax it, to:
Applied Technology Council, 201 Redwood Shores Parkway, Suite 240, Redwood City, California 94065 FAX 650/593-2320

Preliminary Workshop Program
**ATC/JSCA 10th U.S.-Japan Workshop on Improvement of
Structural Design and Construction Practices**

June 30 – July 2, 2003

*Maui Prince Hotel
5400 Makena Alanui, Makena
Maui, Hawaii
(Phone: 808/874-1111)*

Monday, June 30, 2003

8:00 am – 8:20 am: *Registration*

8:20 am – 8:40 am: *Welcome and Opening Remarks, S. Pelham (U.S.), T. Okoshi (Japan)*

**Session I: New Developments in Performance Based Engineering
Chairpersons: A. Wada (Japan), C. Rojahn (U.S.)**

8:40 am – 9:00 am: **Performance Based Design and Performance Menu in JSCA Code;**
M. Kawamura* (Paper 1, Japan)

9:00 am – 9:30 am: **Invited Paper: FEMA Program to Develop Next-Generation
Performance-Based Seismic Design Guidelines;**
M. Mahoney* (Paper 2, U.S.)

9:30 am – 9:50 am: **Lateral Strength Distribution and Collapsed Story of Buildings;**
Y. Ishiyama*, M. Faizian, and P. De Guzman (Paper 3, Japan)

9:50 am – 10:10 am: **A Framework for Performance-Based Engineering;**
J.P. Moehle* (Paper 4, U.S.)

10:10 am – 10:40 am: *Break*

10:40 am – 11:00 am: **Is It Really Performance-Based Seismic Engineering? -Not Exactly;**
S. Freeman*, T. Paret, and G. Searer (Paper 5, U.S.)

11:00 am: – Noon: **Panel Discussion: Implementation Issues in Performance Based
Engineering;** T. Teramoto (Co-Chair, Japan); K. Miyamoto (Co-Chair,
U.S.); Y. Ishiyama, T. Okoshi (Panelists, Japan), S. Freeman, J. Moehle
(Panelists, U.S.)

Noon: *Lunch*

**Session II: Response Modification Devices and Systems: Trends, Codes, and Analysis
Chairpersons: K. Miyamoto (U.S.), M. Kawamura (Japan)**

2:00 pm – 2:20 pm: **Recent Trend in Seismically Isolated Buildings and Devices in
Japan;** N. Kani* and S. Yamaguchi (Paper 6, Japan)

2:20 pm – 2:40 pm: **U.S. Code Development for Buildings with Added Damping;**
R. Hanson* and K. Miyamoto (Paper 7, U.S.)

2:40 pm – 3:00 pm: **Development of JSSI Manual for Passive Control of Buildings;**
K. Kasai* (Paper 8, Japan)

- 3:00 pm – 3:20 pm: **Design and Retrofit of Buildings Using Dissipated Energy Demands;** K. Estes* and J. Anderson (Paper 9, U.S.)
- 3:20 pm – 3:50 pm: *Break*
- 3:50 pm – 4:10 pm: **Some Recent Studies on Damage Controlled Structures in Japan;** A. Wada* (Paper 10, Japan)
- 4:10 pm – 4:50 pm: *Discussion*
- 4:50 pm – 5:00 pm: *Announcements*
- 5:00 pm: *Adjournment Day 1*
- 7:00 pm – 9:00 pm: *ATC Welcoming Party*

Tuesday, July 1, 2003

- 8:00 am – 8:10 am: *Opening Remarks*, M. Kawamura (Japan), C. Rojahn (U.S.)

Session III: Case Studies in Seismic Design and Upgrade Chairpersons: S. Yamaguchi (Japan), R. Sharpe (U.S.)

- 8:10 am – 8:30 am: **Seismic Rehabilitation of Historic Concrete Structure with Fluid Visco-Elastic Dampers;** K. Miyamoto*, A. Gilani, L. Determan, R. Hansen (Paper 11, U.S.)
- 8:30 am – 8:50 am:** **Seismic Isolation Design of TSU-CHIH Hospital at SHIN TIEN;** T. Nakazawa*, S. Machida, L. Longjun, H. Liao, P. Hsia, and S. Yamaguchi (Paper 12, Japan)
- 8:50 am – 9:10 am: **Energy Dissipation and Performance-Based Engineering for the Retrofit of a Pre-Northridge Steel Moment Frame Structure – A Case Study;** R. Kanitkar, C. Blaney*, and O. Waqfi (Paper 13, U.S.)
- 9:10 am – 9:30 am:** **What do you do with a partially Constructed 54 Story Building that does not satisfy Seismic Code Requirements?;** F. Naeim* and M. Rahnema (Paper 14, U.S.)
- 9:30 am – 10:00 am: *Break*

Session IV: Terrorist Attacks: Mitigation and Postdisaster Analysis Chairpersons: S. Baldrige (U.S.), H. Aoyama (Japan)

- 10:00 am – 10:30 am: **Invited Paper: The Terrorist Explosive Threat – Reducing the Hazard through Protective Design;** R. Smilowitz* (Paper 15, U.S.)
- 10:30 am – 11:00 am: **Structural Responses and Damages of New York WTC Towers Due to Aircraft Impact;** Y. Omika*, E. Fukuzawa, N. Koshika, H. Morikawa, and R. Fukuda (Paper 16, Japan)
- 11:00 am – 11:20 am: **Anti-Terrorist Design of Commercial Buildings;** E. Hinman* (Paper 17, U.S.)
- 11:20 am – 11:40 am: **Fire Resistance of Steel Frames;** Y. Sakumoto* (Paper 18, Japan)

11:40 am – 12: 40 pm: **Panel Discussion: Blast-Effects Mitigation:** A. Yamaki (Co-Chair, Japan); S. Baldrige (Co-Chair, U.S.); H. Aoyama, A. Wada (Panelists, Japan), E. Hinman, R. Smilowitz, (Panelists, U.S.)

12:40 pm: *Lunch*

Session V: Future Trends in Structural Engineering Chairpersons: Y. Omika (Japan), A. Ang (U.S.)

2:30 pm – 2:50 pm: **Design Tools for Building Structures in Japan and the United States;** T. Teramoto* (Paper 19, Japan)

2:50 pm – 3:10 pm: **A Pre-publication Summary of ATC-55: Evaluation and Improvement of Inelastic Seismic Analysis Procedures;** C. Comartin* (Paper 20, U.S.)

3:10 pm – 3:30 pm: **Environmental Problems in Structural Engineering;** T. Okoshi* (Paper 21, Japan)

3:30 pm – 3:50 pm: *Break*

3:50 pm – 4:10 pm: **Engineering Education in Japan: A Struggle Towards Internationalization;** Y. Ishiyama*, T. Ueda, and W. Manakul (Paper 22, Japan)

4:10 pm – 4:30 pm: **Professional Competence Development (PCD) of Asia-Pacific Economic Cooperation (APEC) Engineer;** A. Yamaki* (Paper 23, Japan)

4:30 pm – 4:50 pm: *Discussion*

4:50 pm – 5:00 pm: *Announcements*

5:00 pm: *Adjournment Day 2*

7:00 pm – 9:00 pm: *Party Hosted by Japan*

Wednesday, July 2, 2003

Working Group Discussions

8:00 am – 8:30 am: Selection of Topics and Group Assignments

8:30 am – 10:30 am: Working Group Breakout Sessions (Groups 1, 2 and 3)

10:30 am – 11:00 am: *Break*

Plenary Session

11:00 am – Noon: *Working Group Summaries*

Noon – 12:30 pm: *Closing Ceremonies*

12:30 pm: *Workshop Adjournment*

*Presenting Author