

Industries Develop Wind Damage Mitigation Strategies

Two industries who are strongly affected by windstorm damage are moving to develop new and long-term strategies for mitigating losses. Both the insurance industry and the roofing industry have organized committees to address wind mitigation issues.

The Committee for Natural Disaster Loss Reduction (CNDLR) and the Roofing Industry Committee on Wind Issues (RICOWI) have been organized by the insurance and roofing industries, respectively, to address issues of wind damage mitigation.

INSURANCE INDUSTRY EFFORTS

The National Committee on Property Insurance (NCPI) formed the Natural Disaster Loss Reduction Committee (NDLRC) in mid-1991. The mission of the NDLRC is to seek ways to reduce human suffering and property destruction that occur in natural disasters. Accomplishing that mission will require a wide range of research and educational projects.

A series of subcommittees are planned that address common issues of natural disasters as well as those associated with specific disasters such as wind, flood, earthquake, earth movement, and pollution/toxicity. Common issues include hazard and risk assessment, social, financial and economic issues, education, communications and public relations. Three subcommittees have been formed so far: (1) Building Code Subcommittee; (2) Wind Damage Mitigation Subcommittee; and (3) Education, Communications and Public Relations Subcommittee. A Hazards and Risk Assessment Subcommittee is currently being organized. All subcommittees operate under the auspices of a Steering Committee.

Early priorities will focus on building codes and improved building code enforcement. As one of its first acts, the Building Code Subcommittee, working with the Southern Building Code Congress International (SBCCI), conducted a study of building code effectiveness in 15 randomly-selected coastal communities or counties. The study concluded that most code enforcement entities are understaffed and have insufficient support for education and training of their inspectors.

For more information on NDLRC, contact NCPI, Ten Winthrop Square, Boston, Massachusetts.

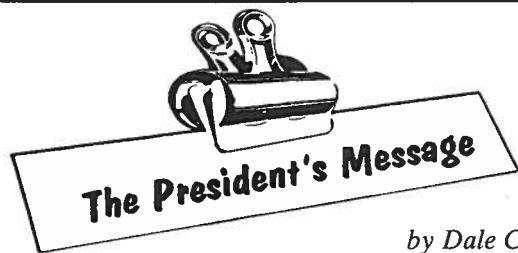
ROOFING INDUSTRY EFFORTS

Two workshops, one in May 1989 and the other in November 1989, were devoted to identifying and discussing roof wind uplift issues and alternatives. Overlaying the discussions of important technical issues was a general feeling that a lack of communication existed within the industry as to what are the problems, what should be done to alleviate them, and how information could be effectively transferred to the roofing industry and to others in the building community. This feeling effectively became the preamble of the charter of the Roofing Industry Committee on Wind Issues (RICOWI). The stated objectives of the Committee are

- (1) to encourage and coordinate research on roof wind issues
- (2) to accelerate the establishment of new or improved industry consensus standards of practice for wind design and testing where needed, and
- (3) to improve the understanding of roof wind concepts and issues within the building community in general.

The RICOWI is responsible to a set of industry sponsors and is assisted by a Banner Organization. Sponsors are industry associations whose members have interests in the roofing industry. Oak Ridge National Laboratory (ORNL), as the Banner Organization, assists the Executive Committee with administration of Committee affairs and logistics. Each sponsor may appoint one representative to the Executive Committee. Additional non-voting members serve on the RICOWI Committee and the Executive Committee. Sponsoring organizations include Asphalt Roofing Manufacturers Association, Cedar Shake and Shingle Bureau, Metal Building Manufacturers Association, National Roofing Contractors Association, National Tile Roofing Manufacturers Association, Inc., Roof Consultants Institute (RCI), Single Ply Roofing Institute, and Society of the Plastics Industries, Inc./Polyurethane Foam Contractors Association.

For more information on activities of the committee, contact Charles B. Goldsmith, Chairman, C.B. Goldsmith & Associates, Inc., 13303 U.S. Highway 19 South, Clearwater, FL 34624



by Dale C. Perry

Many areas in the United States are vulnerable to extreme weather, with hurricanes, tornadoes, severe thunderstorms, and downslope winds exacting high tolls in human lives and property damage. Wind vulnerability continues to increase because of:

- The rapid population growth in urban areas,
- Increasing migration of the populace to the hurricane-prone coastline,
- Aging of the U.S. populace,
- Escalating costs of buildings, lifelines, and
- The deterioration of the infrastructure

An average of 96 lives are lost each year to tornadoes alone. Wind-related losses currently account for over \$2 billion annually. The recent outbreak of tornadoes wreaked havoc over a large portion of the country and once again served as a reminder that we are not doing enough to address the wind threat.

A comprehensive report addressing the current U.S. needs in wind engineering and hazard mitigation has been prepared by the Committee on Natural Disasters of the National Research Council and will soon be released. One of the conclusions reached by the panel of wind experts preparing the report states as follows:

The United States lacks the political will to develop long-term goals and objectives to deal effectively with wind-hazard issues. The threat from extreme winds is real and dramatic for all Atlantic and Gulf Coast States, for Hawaii, Puerto Rico, and Virgin Islands, and for inland states as well. The nation's apparent indifference to this threat is astonishing and perplexing...Advocates must arise from within the affected communities, and they must be augmented by a strong voice from the professional community that addresses wind hazard issues.

The report goes on to suggest the Wind Engineering Research Council play a more active role in order to:

- Promote public awareness,
- Develop strategies to increase funds for research,
- Encourage development and reporting of research based design standards and building codes,
- Address the problems of retrofit, and
- Encourage innovative community planning

MEETING IN WASHINGTON, D.C.

A special meeting of the general membership has been called for 24-25 August 1992 to address these issues in addition to other matters of interest. The meeting will be held at the Marriott Hotel, Crystal City, Washington, D.C. You should have already received a notice of the meeting with a proposed agenda. Please plan to attend. This is your organization and your input is desperately needed.

Call for Papers

Seventh U.S. National Conference on Wind Engineering

Professor Gary Hart, Conference Chair, announced that the 7th U.S. National Conference on Wind Engineering will be held at UCLA June 27-30, 1993.

Held every four years, the WERC-sponsored conference provides a major forum for the exchange of information and discussion of recent developments in, and applications of, wind engineering.

Hart also issued a call for papers to be presented in sessions on a wide variety of topics. Prospective authors are requested to submit a 500-word abstract by October 15, 1992. Authors of accepted abstracts will be notified by December 1, 1992, and will be requested to submit camera-ready manuscripts by February 1, 1993. Papers will be limited to 10 pages.

The conference will be held on the UCLA campus. For more information contact

Professor Gary C. Hart, Chair
 The 7th U.S. National Conference on Wind Engineering
 UCLA, Civil and Environmental Engineering Dept.
 5532 Boelter Hall
 Los Angeles, CA 90024-1593

Important Dates:

- | | |
|------------------|------------------------|
| October 15, 1992 | Deadline for Abstracts |
| December 1, 1992 | Notify Authors |
| February 1, 1993 | Submit Manuscripts |

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Extended Range Forecast of Atlantic Hurricane Season 1992

Each year Professor William M. Gray, Department of Atmospheric Science, Colorado State University, makes a forecast of Atlantic hurricane activity for the coming year. In an article published in the March/April 1992 issue of *Southern Building*, Professor Gray indicates that the 1992 Atlantic hurricane activity will likely be below average with about four hurricanes, eight named storms (hurricane or tropical storm) and one short-lived intense hurricane. The probability of hurricane destruction along the U.S. East Coast and within the Caribbean basin for 1992 is projected to be below average. The forecast is based on ongoing research by Professor Gray and his colleagues, together with meteorological information that was available in November 1991.

Wind Damage

In responding to a recent query on the economic impact of damaging windstorms in the United States, Dick Marshall, NIST, came up with some interesting figures. Approximately 60 percent of the Nation's invested wealth is in constructed facilities. According to the Department of Commerce *Construction Review*, we add to this investment at the rate of 450 billion dollars per year (1991 figures), 343 billion of which consists of buildings. This breaks down to 183 billion dollars for private residential buildings, 118 billion for private nonresidential buildings, and 42 billion for public buildings. Currently, we experience approximately 3 billion dollars of wind damage to constructed facilities each year. According to Peter Sparks, the country experiences damages of the order of one billion dollars every two or three years due to hurricanes alone.

Election Results

Results of the recent WERC election were announced by Lynn Beason, Secretary-Treasurer. Dr. Joseph Golden, National Weather Service, was reelected to a second term on the Board of Directors. Dr. Ahsan Kareem, University of Notre Dame, and Timothy A. Reinhold, Clemson University, were also elected to the Board of Directors. Nick Isyumov and Peter Sparks completed terms on the Board and were not eligible for reelection. WERC is grateful for the dedicated service rendered by Peter and Nick.

Award

Dr. Hatsuo Ishizaki received the 1991 Japan Association for Wind Engineering Award in recognition of outstanding individual contributions to wind engineering.

From the Editor

News in the world of wind engineering is short at this time, which explains why this issue of *The Wind Engineer* is only four pages. Your contributions are needed.

The next WERC publication will be in a slightly different format. The *Wind Research and Applications Digest* (WRAP) will contain short technical articles, descriptions of ongoing research, discussions of controversial issues, or other communications of interest to WERC members. Please submit your ideas or information. Submissions are not required to be in manuscript form. We will provide editorial service to the extent possible.

I plan to publish WRAP No. 1 by the end of the summer, so think of something that would be of interest and send it to me or simply make a suggestion.

Jim McDonald, Ed.
(806) 742-3476



WERC President Dr. Dale C. Perry presides over a recent Board meeting.

 **the Wind Engineer**

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Calendar of Upcoming Meetings and Events

First International Symposium on Computational Wind Engineering

CWE 92
University of Tokyo
August 21-23, 1992

Thirteenth Symposium on Turbulence

University of Missouri-Rolla
September 21-23, 1992

Wind Engineering Society, United Kingdom

Inaugural Conference
Dowing College and Department of Engineering
University of Cambridge
September 28-30, 1992

Second International Colloquium on Bluff Body Aerodynamics and Applications

Melbourne, Australia
December 7-10, 1992

Eleventh Australian Fluid Mechanics Conference

Hobart, Australia
December 14-18, 1992

ASCE Structures Congress XI

Irvine (Orange County), CA
April 19-21, 1993
Theme: Structural Engineering—Leadership in Natural Hazards Mitigation

Seventh U.S. National Conference on Wind Engineering

UCLA
June 27-30, 1993

International Association of Wind Engineering

1st European and African Regional Conference
Peninsula Hotel
Guernsey, Channel Islands
September 20-24, 1993

Third Asia-Pacific Symposium on Wind Engineering

Hong Kong
December 13-15, 1993

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