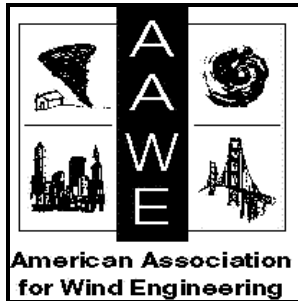


American Association for Wind Engineering



Impact of Wind Hazards

Homes, Businesses, Schools, Hospitals, Nursing Homes, Day Care Centers, Family Security, Community Security – All in Danger. Windstorms in the United States, such as hurricanes, tornadoes, frontal winds and downbursts are currently causing unacceptably high levels of injuries, deaths and business interruption, property damage and other significant negative societal impacts. Unfortunately the level of losses is increasing each year and will continue to escalate unless knowledge and technology generation, education and public policies are improved.

It is estimated that as many as 33,000 homes were destroyed or made uninhabitable due to wind and water impacts from landfall of Hurricane Andrew in 1992. Each year thousands of homes are destroyed or made uninhabitable, personal possessions destroyed and numerous lives lost due to windstorms. Yet in spite of wind-induced damage, resulting in the largest percentage of insured property losses in the U.S., relatively little research is carried out to achieve dramatic improvements in this situation. Amazingly in spite of these severe impacts there have not yet been many direct measurements made of the actual extreme ground-level wind speeds reached or the spatial distribution in various types of extreme windstorms. Wind damage can affect many types of structures. The most vulnerable are low-rise buildings, such as residential units and small commercial and manufacturing buildings. Very limited investigations have been devoted to improve understanding of the behavior of such structures acting as a system. Such studies would require some form of full-scale testing configured for investigation of the sequence of failure mechanism. However, very few such studies have been carried out up to the present date. Another serious problem is the very large U.S. investment in existing constructed facilities that have inadequate lateral load resistance and pose a serious hazard. AAWE is dedicated to working toward mitigation of the hazards posed by these problems.

Background

The American Association for Wind Engineering (AAWE) is a non-profit technical society formed to bring together civil engineers, meteorologists, architects, planners, public officials, social scientists, manufacturers, contractors, insurance industry and others, who are interested in mitigation of wind generated damages to buildings and other structures.

The AAWE was originally established as the Wind Engineering Research Council in 1966 to promote and disseminate technical information in the research community. In 1993 the name was changed to American Association for Wind Engineering and the AAWE was incorporated as a non-profit professional organization.

The multi-disciplinary field of wind engineering considers problems related to wind and associated water penetration on buildings and structures, societal impact of winds, hurricane and tornado risk assessment, cost-benefit analysis, codes and standards, dispersion of urban and industrial pollution, support for wind energy activities and urban aerodynamics.

Objectives of AAWE

- Promote the exchange of information among researchers and practitioners;
- Stimulate research efforts in wind engineering to build a knowledge base for wind hazard mitigation;
- Assess and prioritize leading-edge research in wind engineering;
- Provide advice to governmental agencies and other interested parties on wind research efforts and needs;
- Maintain communication with similar organizations in other countries and international organizations;
- Develop and execute plans for learning from future windstorms by gathering post-disaster data and analyzing and disseminating information.

**A Professional Organization
Dedicated to the Advancement of
the Science and Practice of Wind
Engineering and the Solution of
National Wind Engineering Problems**

Geographic Coverage

When first established, AAWE (WERC) was primarily focused on wind engineering activities in the United States and Canada. In 1999 the International Association for Wind Engineering (IAWE) recommended that wind-engineering activities be carried out on a broader basis and be organized into major geographic regions: Europe-Africa, Americas-Caribbean, and Asia-Pacific. Each of these regions currently holds regional conferences on a four-year cycle. AAWE is striving to serve the Americas-Caribbean region. For example, the next regional conference will be in Puerto Rico.

Past Activities of AAWE

AAWE has carried out an expanding scope of activities addressing the AAWE objectives. They included: the sponsorship of a series of wind engineering conferences, publication of a quarterly newsletter, operation of a web site (that provides information to the profession and the public), publication of special documents, organization of special workshops (to define research needs and opportunities in wind engineering), and representation of wind engineering community (research and technology transfer needs and opportunities) to governmental organizations and professional organizations.

The first U.S. National Conference held under AAWE (WERC) sponsorship took place at the California Institute of Technology in 1970. Since then there have been 9 additional conferences: seven U.S. National Conferences on Wind Engineering and two conferences entitled "Americas Conference on Wind Engineering" held in 2001 and 2005. The next conference – the 11th Americas Conference on Wind Engineering is to be held in Puerto Rico during late June of 2009.

AAWE actively participates in activities of IAWE. One of contributions of AAWE in this area is co-sponsorship of the International Conference on Wind Engineering (ICWE). The last ICWE was held in Lubbock Texas on June 2-6, 2003.

Future Activities of AAWE

AAWE will continue its program of activities that have been carried on in the past, including the organization of national and international conferences, and will strive to expand its program of making information available to the wind engineering community. Conference proceedings and other information are available on CD-ROMS. (Go to www.aawe.org) The members of AAWE are encouraged to participate in activities of AAWE committees and other initiatives of AAWE. Such participation is invaluable in development of an AAWE action plan focused on identification of research and practice needs to improve safety of buildings and structures and to maximize wind hazard mitigation.

Benefits of AAWE Membership

AAWE has operated on a primarily volunteer basis and has kept expenses low. However, there are expenses in preparing and publishing the AAWE newsletter, maintaining the web site and in striving to maintain communication between the wind engineering community and governmental and other organizations. Becoming a member of AAWE accomplishes the following objectives:

- Provides identity for the field of wind engineering and the need to advance the science and practice in this area;
- Identifies you as a professional with interest in the wind engineering field and provides you with specialized information;
- Provides a defined avenue to make new wind engineering knowledge available;
- Contribute to the saving of lives and reduction of damages due to extreme winds.

Contact Information

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Web site www.aawe.org

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(225) 578-8898 Secretary: Dr. Steve Cai

Mail AAWE
P.O. Box 17298
Baton Rouge, LA 70893
USA

AAWE Dues (Jan. 1 – Dec. 31)

Individual Member	\$50
Student Member	\$10
Corporate Member	\$500 or more (includes 5 individual members)

Payable to AAWE

Mail to:

American Association for Wind Engineering
1415 Blue Spruce Drive, Suite 3
Fort Collins, CO 80524, USA

Application for Membership

Name: _____

Company: _____

Address1: _____

Address2: _____

City: _____

State: _____ Zip: _____ - _____

Country: _____

Phone: _____

e-mail: _____

Fax: _____