



IHRC UPDATE

SUMMER 2003

Serving the state of Florida, our nation and the international community, the IHRC is a Type I interdisciplinary research center focused on the mitigation of hurricane damage to people, the economy, and the built and natural environments.

The citizens of the U.S. East and Gulf Coasts and Caribbean islands are severely impacted by hurricanes, therefore, the IHRC promotes an interdisciplinary, large-scale disaster research agenda to address this vulnerability. Disciplines such as architecture, business, economics, engineering, finance, geosciences, insurance, political science, sociology, and urban planning are involved in a long-term, integrated research program that helps Florida, the nation, and its regional neighbors to mitigate hurricane exposure.

The Center developed as a result of a public-private partnership between the We Will Rebuild Foundation, an organization formed to spearhead the rebuilding of Dade County in 1992 after Hurricane Andrew, and Florida International University (FIU). The IHRC is Florida's official hurricane research center for 11 universities comprising the state university system. The Center works in conjunction with the National Hurricane Center, which is also located at the FIU University Park Campus in West Miami-Dade.

Announcements

The International Hurricane Center has officially changed its name to the International Hurricane Research Center (IHRC). Decided at the last board meeting in May, the change was made to better reflect the Center's research initiatives.

Mr. Eduardo Camet was elected Vice Chair of the IHRC during the last board meeting. Mr. Camet served as trustee and Chairman of the Finance Committee of the We Will Rebuild Foundation, and has been a trustee of the IHRC since its inception.

"Eduardo's first hand knowledge of the housing industry has been instrumental in guiding critical work being conducted at the Laboratory for Structural Mitigation," said IHRC Deputy Director Ricardo Alvarez.

Camet has been president of M. H. Homes, Inc., since 1999 when

the company acquired the South Florida division of Morrison Homes, where he was President. Prior to joining Morrison Homes, Camet was president of Cametco Construction Corporation.

Camet serves as Life Director of the Builders Association of South Florida, where he was President in 1992-1993, and is currently the Legal Action Committee Chair of the Florida Home Builders Association.

The Laboratory for Social and Behavioral Research hosted a workshop on June 27th, giving an overview of its past accomplishments and current projects, and inviting input concerning future programs and collaborations. Dr. Betty Morrow, who is retiring, officially resigned as head of the Lab. and handed the reins over to Dr. Jim Rivers.

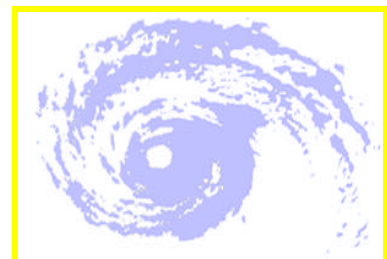
The Lab for Structural Mitigation launched a new website: <http://mitigation.fiu.edu>.

National Science Foundation Science and Technology Center

On June 2nd, Dr. Hugh Willoughby sent the preliminary proposal to the National Science Foundation to establish the *Center for Hurricane Vulnerability Research*.

The NSF will now put this and other submitted proposals through the peer review process, and then invite the selected few by October 15, 2003 to submit full proposals.

We believe *hurricane vulnerability* is the right issue; Florida the right state; and that we are the right team to be chosen for this prestigious designation.



Laboratory for Structural Mitigation

Recent work under the Hurricane Loss Reduction Project, funded by FLDCA through the CAT fund, involved the destructive testing of roof sheathing panels under simulated hurricane wind load. The Common Bright nail, which is the nail currently required for use by the Florida Building Code, and the Ring Shank nail were tested. It was found that the Ring Shank can improve the performance of roof sheathing under hurricane winds by a factor of 130%.

Based on this finding, the Laboratory for Structural Mitigation made a proposal to modify the Florida Building Code. On June 17th, the State Building Code Technical Review Committee approved our proposal, and it has been sent to the full **State Building Code Commission** for final approval at its next meeting in August, 2003.

The next step will be in October/November of this year, when the State Building Code Commission submits its recommendations to the State Legislature. Upon approval by the Legislature, all modifications will become part of the new Florida Building Code effective July 1, 2004.

The ring shank nail proposal has prompted several inquiries from the media. The "El Nuevo Herald" (the Spanish version of the Miami Herald) published a front page article on this including interviews with IHRC Vice Chair, Eduardo Camet; a member of the State Building Code Commission, Herminio Gonzalez; our fellow HLMP team member, Tim Reinhold; and Lab Director Ricardo Alvarez.

During the week of June 16th, the Lab installed a **roofing wind tunnel**, a roof test specimen curing chamber and three compressed air cannons capable of firing large

missiles (a 7 ft to 9 ft 2x4), small missiles (steel pellets simulating roof gravel) and also roofing tile and shingles. These additions to our capabilities strengthen our Lab., but also highlight our dire need for additional space.

On June 20th, a video crew working on a documentary for the National Geographic Society visited the Laboratory for Structural Mitigation. The documentary focuses on various natural hazards and what different groups are doing to reduce their impact. The crew videotaped a number of tests including: (a) roof sheathing nailing tests using our vacuum chamber; (b) roof water penetration tests using air boats and our rain generator wind tunnel, and (c) debris impact tests using a compressed air cannon (designed and built for us by our colleague Tim Reinhold). The documentary will be finalized and edited by October, 2003. It will be aired, at a date yet to be determined, under the name "Built for Destruction".



Left: (a) roof sheathing nailing test using a vacuum



Left: (b) roof water penetration tests using air boats and a rain generator wind tunnel



Left: (c) debris impact tests using a compressed air cannon

Conferences

17th Annual Governor's Hurricane Conference

The IHRC participated in the 17th Annual Governor's Hurricane Conference in Tampa from June 6th to the 13th, which included presentations and remarks by Governor Bush, DCA Secretary Colleen Castille, and IHRC Board member and TPC/NHC Director Max Mayfield.

The IHRC exhibitors did an excellent job distributing information and taking care of the numerous visitors who stopped by.

Ricardo Alvarez represented the IHRC by chairing a 1-1/2 hour workshop titled *Florida Universities - Partners in Hurricane Preparedness*.

Also speaking at the workshop, were Clifford Merz from the University of South Florida and Jean-Paul Pinelli from the Florida Institute of Technology. In addition, Mr. Alvarez gave a presentation on the topic of applied and effective research to reduce the potential for damage to housing from hurricane impacts.

9th Annual South Florida Hurricane Conference

The IHRC was a sponsor for the 9th Annual South Florida Hurricane Conference hosted by the Broward Emergency Management Agency (BEMA) under the direction of our good friend Tony Carper.

Craig Fugate, Florida Director of Emergency Management, was one of the main speakers at the conference, and Mr. Alvarez made a presentation focusing on the historical perspective of hurricane mitigation and highlighting some of the IHRC's research work.

International Hurricane Research Center

Florida International University . University Park Campus . MARC 360 . Miami, Florida 33199
phone: 305-348-1607 . fax: 305-348-1605 . e-mail: hurrican@fiu.edu . <http://www.ihc.fiu.edu>