



THE UNITED STATES' EXPERIENCE

TITLE:
**FLORIDA INTERNATIONAL UNIVERSITY WALL OF WIND-
EXTREME EVENTS INSTITUTE AT FIU**

GENERAL INFORMATION

Country: US

Coordinating Institution: Florida International University

Webpage: wow.fiu.edu



1) Objectives

The 12-fan Wall of Wind (WOW) at FIU is the largest and most powerful university research facility of its kind and is capable of simulating a Category 5 hurricane – the highest rating on the Saffir-Simpson Hurricane Wind Scale. This facility is advancing the understanding of hurricane impacts on buildings and other structures, while also developing innovative damage mitigation products and techniques.

2) Relevance

FIU's Wall of Wind is advancing the understanding of hurricane impacts on buildings and developing/validating innovative damage mitigation products/techniques in the United States and in the Americas. FIU's Extreme Events Institute and its long standing collaboration with the USAID has helped convene key stakeholders and provide technical assistance to the region. These full-scale experimentation results were applied to improve Florida Building Code's wind load provisions on building roof-mounted equipment for the State of Florida, including its High Velocity Hurricane Zones. Furthermore, the lessons learned from this facility can help promote disaster preparedness and relief management across the Americas and the world.

3) Concrete activities and actions

In addition to USAID funded engagements in the Americas focused on Disaster Risk Reduction, forums and research have been conducted in order to understand how international collaboration and federal, state and local policies, along with innovations in design, can yield safer, more disaster-resilient communities. U.S. Senator Bill Nelson, U.S. Congressman Mario-Diaz-Balart, and Representatives from the Florida congressional delegation have been active advocates for WOW as a premier research facility, and agencies such as NOAA, Federal Emergency Management Agency, and the BuildStrong Coalition have promoted FIU's efforts in helping to design mitigation strategies for disaster relief.

4) Achievements and results

Through international consultations, FIU has assisted countries in the region mitigate potential loss and reduce risk. Building code provisions, particularly for the Miami-Dade High Velocity Hurricane Zone, have been revised and tightened in the last two decades based on lessons learned from previous storms. FIU's Wall of Wind (WOW) is helping to gauge just how South Florida construction would fare in the face of a major storm. By the fall of 2014, the Wall of Wind — in partnership with Miami-Dade County — will have completed tests on how well different building products hold up under different natural disaster scenarios.

5) Sustainability

Through continued partnerships and engagement with countries in the Americas, research at the Wall of Wind will continue. Lessons learned at the Wall of Wind can help prevent serious property loss the next time a major hurricane hits the southern US and will help support of sustainable windstorm-resilient, energy-efficient communities.

6) Lessons learned

Current priorities are to continue serving the needs of the private, building corporations; and governments in the region just the same. Higher Education and Research Development partnerships would also be welcome.

7) Capacity for the exchange of this experience

Cooperation modality	Cooperation modalities the institution can provide to others	The institution may be able to provide this cooperation to others by
Information Sharing	YES	Ongoing
Conference Calls	YES	Ongoing
Videoconferences	YES	Ongoing
Workshops	YES	Ongoing
Technical and Experts Visits	YES	Ongoing

8) Author of this story

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9) Key persons involved in the design, implementation, and evaluation of the experience

9 a.

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