

A mediating force
WSU professor featured
in PBS disaster impact show

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Dan Dolan, a Washington State University professor of civil and environmental engineering, is featured in a Public Broadcasting Service one-hour documentary entitled "Disaster-Resistant Housing" that has begun airing on television stations in the U.S.

The PBS program, which covers natural disasters including hurricanes, tornados, floods, fires and earthquakes, has drawn interest in the wake of this year's record-breaking hurricane season and the resulting impact in the Southeast.

An expert on low-rise building design, Dolan conducts an experiment on a building wall in the program in order to simulate how homes respond to natural disasters such as earthquakes and hurricanes. The test was conducted and filmed at the WSU Wood Materials and Engineering Laboratory in Pullman.

In the experiment, Dolan introduces stress loads onto the wall until it fails, simulating the stress of an actual natural disaster. The test is used by building designers and contractors to help them determine how to construct buildings to avoid such failures.

Involved in writing and updating design and building codes in the U.S., Dolan traveled to the Gulf Coast to view the damage after Hurricane Katrina. He is working with the Institute for Business and Home Safety to assess and quantify wind damage to homes from that storm. His research will be used to improve building codes.

Dolan has worked on projects funded by the National Institute of Standards and Technology, U.S. Department of Agriculture and National Science Foundation that are directed at reducing losses to low-rise construction during hurricanes and other high-wind events or earthquakes. Buildings under 10 stories make up 85 percent of the structures in the U.S. He works to model in real time the forces a low-rise structure experiences from hurricane-force winds or earthquakes, and tests full-scale components of buildings to determine effective methods for improving the performance of these buildings.

The broadcast schedule for the program is determined by individual PBS stations. The two 30-minute segments of the complete program can be viewed online, however, at www.itvisus.com/programs/homes/watch.asp.