

## Concrete Homes Newsletter

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### ICFA/NVCAC Achieves Success During Blast Demonstrations

The Insulating Concrete Form Association (ICFA) and the Northern Virginia Concrete Advisory Council successfully demonstrated the blast-resistant properties of ICF building systems during the Force Protection Equipment Demonstration (FPED V) April 26–28, 2005, at Quantico Marine Corps Base in Northern Virginia.

FPED was created in response to recent terrorism attacks and showcases commercial off-the-shelf (COTS) force protection equipment. During FPED V, over 500 vendors demonstrated 2,400 different products and services, such as surveillance systems, blast and ballistics mitigation products and chemical and biological troop protective gear. FPED is sponsored by the United States Department of Defense, United States Joint Chiefs of Staff, United States Department of Energy and United States National Institute of Justice.



The picture on the right shows the results of a 50 lb. TNT detonation from 10 feet away.

During the blast demonstrations, eleven separate ICF reaction boxes, weighing 13 tons apiece and walls measuring 8 feet tall and 6 inches thick were subjected to explosion from 50 lbs of TNT at differing distances (3.5 feet to 10 feet) and to pressures from 300 pounds per square inch (PSI) to over 7,000 PSI.

Joseph Lyman, Executive Director of the ICFA, said, "FPED gives the ICF Industry the opportunity to showcase the impact-resistant properties of ICFs in real life. The results are amazing."

Known for decades for its impact resistant properties, expanded polystyrene (EPS), the primary material in ICFs, has recently shown great potential as a blast-resistant product. In each instance during six different blast demonstrations, EPS compressed against the face of the concrete wall and reduced the pressure of the blast.

Based on the success experienced at FPED IV and V, the Portland Cement Association and ICFA are pursuing blast testing at a number of government funded blast ranges, which would allow for further acceptance of ICFs. Additionally, the Anti-Terrorism/Force Protection Standard, combined with the newest authorization from Congress to build military housing, provides the ICF community with a great opportunity to expand into a market well suited to ICF building systems.

"We look forward to participating in the AT/FP market and helping to provide safe and durable buildings," says Lyman.

To learn more about the Force Protection Equipment Demonstration, please visit [www.fped5.org](http://www.fped5.org).