

# NIST Studies Safe Crew Sizes

The National Institute of Standards and Technology, in cooperation with Worcester Polytechnic Institute and the International Association of Fire Fighters, is conducting a study to determine the difference crew size can make in an emergency. NIST engineers plan to release the results of the study in the fall, and the results of the experiments conducted for the study will compliment a fire incident survey involving 400 departments nationwide.

NIST intends this study to provide information to fire chiefs and departments considering reducing crew sizes to save money in a difficult economy.

“Currently local governments rely on trial and error or a quali-

tative basis,” said NIST researcher Jason Averill, co-principal researcher of the study. “When this study is complete, there will be objective data on which to base these important decisions.”

NIST is conducting its research with approximately 50 Montgomery and Fairfax County, Md., firefighters at the Montgomery County Fire Rescue Training Center. The live-fire training is designed to demonstrate the effect of two-, three-, four- and five-person per engine crew sizes, along with the equipment arrival times, on the rate fire growth and potential for survival of trapped victims.

The \$1 million-a-year study is funded by the Department

of Homeland Security and the Assistance to Firefighters Grant program. NIST is among several organizations taking part in the project, which including the Center for Public Safety Excellence, the IAFF, the International Association of Fire Chiefs, the Urban Institute and the Worcester Polytechnic Institute.

“Not only will this study provide scientific data to help local government decision makers with establishing an effective firefighting force, resource allocation and community risk assessment, it will furnish fire and emergency service leaders with the tools for a more efficient response to fire and EMS emergencies,” Averill said.