



WAR ON TERROR

[Tiny radiation detector getting trial run here](#)

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Chicago will become ground zero for a test of a credit-card sized radiation detector that lets soldiers and emergency workers know when they have been contaminated from nuclear fallout.

Mock terrorists will attack Chicago and Seattle in May with simulated weapons of mass destruction. During the exercise, Chicago firefighters are expected to carry 'dosimeters'--a \$5 sensor with a color strip that grows darker as the dosage of radiation becomes greater.

The devices, manufactured by J.P. Laboratories of Middlesex, N.J., were designed with a "dirty bomb" in mind.

The nuclear material in a Hiroshima-style bomb creates the blast, which can destroy a city. In a dirty bomb, conventional explosives, such as dynamite, spread radioactive material, such as cesium, into the air. Cesium is much easier to obtain than refined nuclear materials, like plutonium, that are used in nuclear weapons.

Fears of a possible dirty bomb attack were heightened when former Chicago gang member Jose Padilla was arrested last spring. He was suspected of plotting such an attack.

The blast from a dirty bomb would injure or kill those nearby. Some people near the explosion could be exposed to enough radiation to make them sick or even kill them. It also could cause millions--or billions--of dollars in damage, depending on the size of the bomb. Buildings would have to be demolished and contaminated soil carted away, experts say.

Cesium, for instance, takes about 200 years to decay to harmless levels. Cleanup is mainly at a low-tech stage: "muck and truck," said Charles Ferguson of the Center for Nonproliferation Studies.

The public could do very little to avoid the effects of a nearby dirty bomb explosion, making it such a frightening possibility. Duct tape and plastic sheeting, which some government agencies have recommended to keep chemical and biological contaminants out of homes, would be useless in a dirty bomb attack, experts say.

The Chicago Fire Department has agreed to be part of the testing process for dosimeters, said department spokesman Kevin MacGregor.

The test will determine how rugged the devices are in everyday use by firefighters, paramedics, police officers and other emergency workers, a Pentagon spokesman said. Dosimeters already have proven effective in measuring radiation levels, he said.

Paresh Patel, vice president of marketing for J.P. Laboratories, said the firm began designing dosimeters six years ago. Unlike radiation badges used in nuclear power plants, dosimeters give immediate results on cumulative exposure--they don't have to be sent to a testing facility for results, he said.

The government's Technical Support Working Group has provided J.P. Laboratories with about \$105,000 in seed money to develop its dosimeter.