

Anatomy of a test on terror

BY BRYN NELSON
STAFF WRITER

Yesterday marked the completion of an unusual, elaborate and potentially invaluable exercise around Madison Square Garden.

In a repeat of twin tests conducted Thursday, a small army of scientists, engineers, college students, city officials, and employees from five federal departments and agencies gathered for the carefully timed release of a colorless, odorless, harmless gas.

At precisely 9 a.m. and 11:30 a.m., researchers released six variants of a nontoxic gas known as perfluorocarbon tracer, or PFT, from five locations.

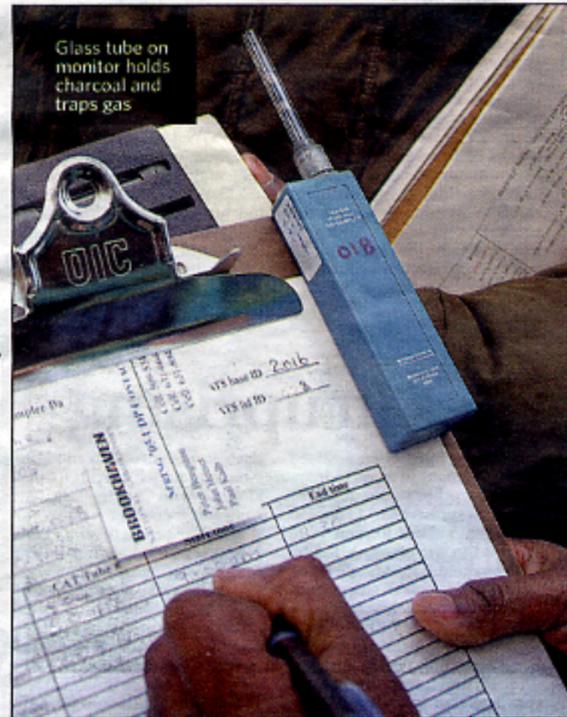
An array of air samplers — on rooftops, in bicycle baskets attached to lampposts, on the clipboards of sidewalk-positioned students and EPA employees

walking along assigned routes — then captured “snapshots” of the plumes as they drifted to the south and east.

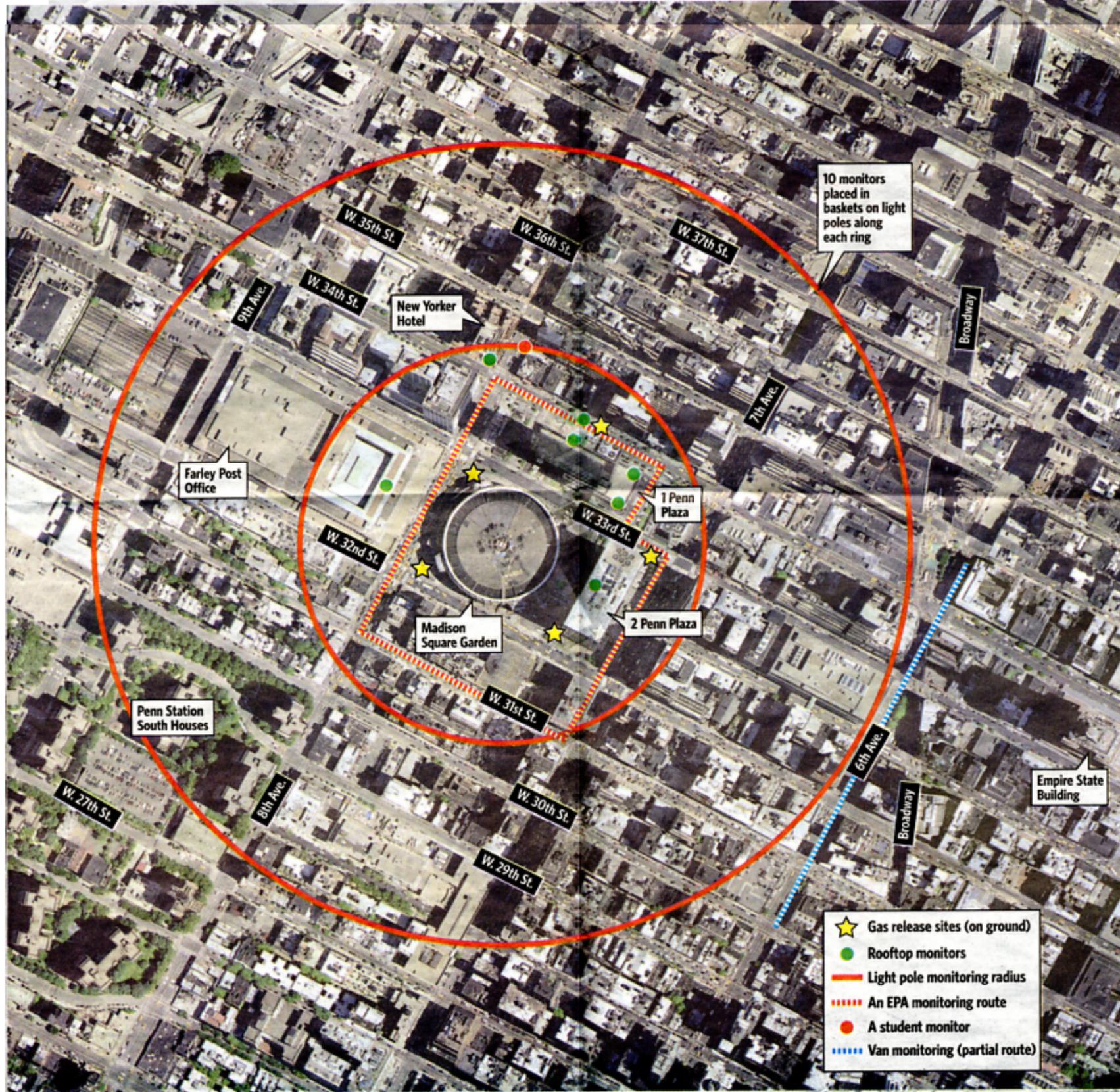
Meanwhile, a white van cruised along Sixth Avenue, its cushioned load of instruments “sniffing” the air for tiny traces of the gases and revealing their presence through a continuous printout of telltale peaks.

The initial results of the \$10-million Urban Dispersion Program, to be gleaned within the next month through a chemical analysis at Brookhaven National Laboratory, should give experts a better sense of how a toxic gas might disperse within Manhattan’s urban canyons.

Two more tests, scheduled for August and next spring, will further refine computer simulations of a disaster, arming officials with the best-available information in the event of a worst-case scenario.



A volunteer on Eighth Avenue near 34th Street records data from a mobile air sampler, upper right, attached to clipboard.



HOW IT WORKED

ON THE GROUND

Scientists released PFT gas in five locations around Madison Square Garden in an effort to track how a toxic gas release would move around the tall buildings and deep canyons of Manhattan. Samplers, or monitors, to measure the gas level, were placed throughout the area.

PFT, or perfluorocarbon tracer gas, is harmless, odorless and colorless and can be detected at very low levels. Other uses for the gas include treating premature babies with underdeveloped lungs and testing the airtightness of nuclear plant control rooms.



A PFT release canister

IN THE AIR

Sixteen samplers were placed in eight locations on four buildings: two on the roof of the Farley Post Office, two on the roof of 2 Penn Plaza, two on the roof of the New Yorker Hotel, and four each on the 12th floor setback roof and on the top roof of 1 Penn Plaza.



Monitors were placed in baskets on light poles.

Twenty samplers were placed in baskets on light poles in two concentric rings around Madison Square Garden, one at 200 meters out, another at 400 meters out. 10 samplers were in each ring.



A personal sampler used by students and EPA "pedestrians"

IN THE STREETS

Fifteen student volunteers from the New York City College of Technology and Medgar Evers College in Brooklyn collected air samples on the ground under some of the light pole samplers. Twelve employees of the U.S. Environmental Protection Agency collected air samples as they walked through the area and into some public buildings, simulating the potential routes of pedestrians and emergency personnel.



A van drove through the neighborhood, collecting air samples. The van stayed away from Madison Square Garden because the instruments were very sensitive.