

Explosive Solution - ATF Bomb Tests Helped Agents Recognize Weapon Used In Oklahoma City Attack

Dallas Morning News

May 23, 1995 | Lee Hancock | Page: 1A | Section: NEWS

A van parked on a concrete roadway erupted in a fireball of smoke and flame in November - blown to bits by its 1,000-pound payload.

In the fragments blasted across a New Mexico desert test site by an ammonium nitrate-and-fuel oil bomb were basic lessons that would help investigators solve the attack on the Oklahoma City federal building, federal officials said.

"It helped us put together what happened in Oklahoma very quickly. Very quickly," said David Shatzer, an explosives specialist with the federal Bureau of Alcohol, Tobacco and Firearms.

"The damage that was observed was consistent with the same type of damage that we've been studying. The explosive effects were consistent. They were just of a different magnitude."

The November blast was part of a three-year testing project at White Sands Missile Base dubbed "Dipole Might." The project name is a meaningless military code name, federal officials said.

Many members of the two ATF disaster teams sent to Oklahoma City - including one of the first federal agents to respond to the April 19 explosion - had been trained in investigating large car bombs in the New Mexico project, officials said.

"One of our agents was in the courthouse across from the federal building when it went up. He ran back, took a look and said, 'It's ANFO, and it looks like a vehicle bomb,'" said Jack Killorin, ATF's chief spokesman in Washington. "He knew what he was looking at because he'd seen something like it before."

Within days after the Oklahoma City bombing, federal officials said, authorities had identified the type and size of explosive used in the attack. They also used pieces of the Ryder truck that carried the bomb to help track down suspect Timothy McVeigh.

"When the Oklahoma City bombing occurred, I said we're going to see some of the benefits of having these guys out in the desert pay off. Lo and behold, it did," said Dewey Webb, a supervisor at ATF's Washington-based explosives division.

By summer's end, ATF investigators hope to build a replica of the 4,800-pound Oklahoma City bomb at the New Mexico test site. They will detonate it on a stretch of pavement matching the street where the Oklahoma attack occurred, Mr. Shatzer said.

The Dipole Might project began in 1994, one year after 1,000 pounds of explosives packed into a rental van blew up inside a parking garage at the World Trade Center. The New York attack killed six people and wounded more than 1,000.

At the time, the February 1993 World Trade Center attack was the biggest in a mounting number of bombings across the country; the number of explosives incidents jumped from 2,960 in 1989 to more than 4,800 in 1993, the year of the World Trade Center attack, according to federal law enforcement statistics.

In the wake of the New York bombing, officials recognized that federal law officers - even ATF agents whose basic training includes bomb investigation techniques - needed more expertise in examining the aftermath of large vehicle bombs.

"Until Dipole Might, there was no concise, scientific study of large scale vehicle bombs," said Mr. Shatzer, who was among the investigators sent to Oklahoma City.

ATF explosives experts, working with a federal interagency counterterrorism research group, developed a plan to study car bombs at White Sands Missile base.

The project has attracted the attention of Israeli officials, and British government explosives experts have assisted in the tests, officials said.

To date, the project has blown up eight vehicles - from vans to sedans - with devices ranging from 50 pounds of C-4 plastic explosive to 1,000 pounds of ammonium nitrate and fuel oil.

The 1,000-pound test was designed to duplicate the World Trade Center bombing - an attack dwarfed by the 4,800-pound device used in Oklahoma City.

The project's primary goal is to develop a laptop computer program that will guide bomb investigations from the first minutes after a blast, Mr. Shatzer said.

"It will prompt the investigator to ask certain questions: How far away windows are broken, how large is the apparent size of the crater?" he said. "It'll say if your crater's this big, you should start looking in this direction, in this way, for certain parts."

The program will offer a list of about a dozen vehicle parts that usually survive explosions, he said.

"You're talking about large frame components, axles, things like that," he said.

In Oklahoma City, an axle recovered only hours after the April 19 bombing provided a vehicle identification number for the Ryder truck used in the attack. That in turn led to an eyewitness who identified Mr. McVeigh as the man who rented the bomb truck.

The Dipole Might computer program also will lead investigators to car parts that are likely to retain explosives residue, Mr. Shatzer said.

Each test explosion helps build the computer program's data base. High-speed cameras track the distance and height that vehicle parts are blown as well as their speed and flight path.

"Depending on the weight of explosives, we had fragments thrown 1,200-plus feet, easily," Mr. Shatzer said.

Concrete, sheet metal, brick and other common building materials are mounted at the blast site "to see which materials best absorb explosive residue," Mr. Shatzer said.

The test cars and vans are placed atop different road surfaces to see how the pavement is damaged by varying types and sizes of explosives, he said.

"We, with a reasonable degree of scientific certainty, can make a determination of the type of bomb, where in the vehicle it was placed," he said. "We can come up with the weight of explosive used, a general type of explosive used. We can tell the approximate height above the ground the explosion occurred."

Members of ATF's national response teams conduct the meticulous site examinations that follow each test.

"They can see the effect of a large-scale vehicle bomb and get a feeling for the magnitude of a vehicle bomb as well," Mr. Shatzer said.

Though the test blasts are conducted in open desert, with no buildings to replicate an urban setting, "the actual close-in blast effect of the explosion will be the same," Mr. Shatzer said.

"The crater is going to have the same size, the same shape," he said. "You're still going to have pieces thrown in much the same way through the free air."

Investigators mark and map where each vehicle fragment lands and then identify and weigh each piece.

Investigators also dig out the bomb's crater and sift resulting debris for bomb or vehicle parts. In Oklahoma City, investigators removed and sifted four dump-truck loads of dirt from the crater to recover evidence.

"You can tell by looking at a crater if it's a 5-pound explosion or a 500-pound explosion," Mr. Shatzer said. "What we saw in Oklahoma was consistent with our testing. That allowed us to work backward and put it together."