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A very distinctive trail can usually lead investigators to origins of a bomb

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By JACK MEYER
Like handwriting or fingerprints, every bomb is its own kind.
Any explosion leaves a trail behind, and with enough clues, investigators can use chemistry, computers, paperwork and forensic views to pinpoint the perpetrator.
Each device is unique, said an FBI bomb expert.
"A bomb is designed so that

the bomber can do his work without being there," he said. However, the bomber had to get the materials somewhere, and with enough paperwork, investigators can find the source and identify the suspect, he said.
A bomb is a high explosive device, identifiable that contains a smaller explosive explosive, an electric switch or trigger, and usually some packaging to disguise the deadly contents.

These elements yield clues that help point to the identity of the bomb's maker.
For example, blasting cap companies use different colored wires to identify their products, said Michael Costello, senior explosives technician at the State Police Fire Marshal's office.
While the explosive is the device apart, fragments are left behind and can be traced.

ne said.
Similarly, the high explosive material, the core of the bomb, can be quickly determined by chemists from vapor tests on fragments left at the scene, said Col. Dennis J. Galvin, a commander of the Fire Marshal's office.
Whether the explosive is dynamite, a water gel, blasting powder or a plastic explosive, there are a finite number of

pieces that distinguish these explosives, and through an analysis you can break that down to identify the manufacturer or region the compound is from, Galvin said.
The Bureau of Alcohol, Tobacco, Firearms and Explosives keeps strict tabs on the manufacture, storage and transportation of high explosives and requires reporting on inventories, according to experts.

The distribution of these materials is very tightly controlled, said Galvin.
That kind of paper trail means federal authorities more often find virtually every one who has access to high explosives, experts said.
However, a bomb's trigger is as easy to find as the local radio or electronics store and as cheap as a garage door

operator, a remote-controlled plane. Designing it requires no more than a hobbyist's knowledge to rig up, experts said.
"There's material out there to tell you how to do it," said one state explosives expert.
But if the bomb maker bought a remote-controlled plane using a credit card, that could be a valuable clue in con-

victing the case, said one law enforcement expert.
While a bomb is usually the criminal's investigation strategy, the FBI is searching for and examining physical clues at the crime scene, identifying and interviewing witnesses, and finding documentary evidence, said Galvin.

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A very distinctive trail can usually lead investigators to origins of a bomb

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Like handwriting or fingerprints, every bomb is one of a kind.

Any explosion leaves traces behind, and with enough clues, investigators can use chemists, computers, paperwork and interviews to pinpoint the perpetrator.

"Each device is unique," said an FBI bomb expert.

"A bomb is designed so that the bomber can do his work without being there," he said. However, the bomber has to get the materials somewhere, and with enough legwork investigators can find the sources and, in many cases, the suspect, he said.

A bomb has a high-explosive core, a detonator that contains a smaller concussion explosive, an electric switch or "trigger," and usually some packaging to disguise the deadly contents.

Those elements yield clues that help point to the identity of the bomb's maker.

For example, "blasting cap companies use different colored wire" to identify their products, said Michael Costello, senior explosives technician at the State Police Fire Marshal's office.

While the explosion rips the device apart, fragments are left behind and can be traced, he said.

Similarly, the high-explosive material - the core of the bomb - can be quickly determined by chemists from vapor tests on fragments left at the scene, said Cpl. Dennis J. Galvin, unit commander of the Fire Marshal's office.

Whether the explosive is dynamite, a water gel, blasting powder or a plastic explosive, "there are a finite number of places that distribute those items, and through an analysis you can break that down" to identify the manufacturer or region the compound is from, Galvin said.

The Bureau of Alcohol, Tobacco, and Firearms keeps strict tabs on the manufacture, storage and transportation of high-explosives and requires reporting on inventories, according to experts.

"The distribution of those materials is very highly regulated," said Galvin.

That kind of paper trail means federal authorities know or can find virtually everyone who has access to high-explosives, experts said.

However, a bomb's trigger is as easy to find as the nearest radio or electronics store and as cheap as a garage door opener or a remote-controlled plane. Designing it requires no more than a hobbyist's knowledge to rig up, experts said.

"There's material out there to tell you how to do it," said one state explosives expert.

But if the bomb maker bought a remote-controlled plane using a credit card, that could be a valuable clue in convicting the suspect, said one law enforcement source.

While a bombing is unusual, the criminal investigation strategy is the same as an arson or burglary probe - searching for and examining physical clues at the crime scene, identifying and interviewing witnesses, and finding documentary evidence, said Galvin.

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Abstract (Document Summary)

A bomb has a high-explosive core, a detonator that contains a smaller concussion explosive, an electric switch or "trigger," and usually some packaging to disguise the deadly contents.

Similarly, the high-explosive material - the core of the bomb - can be quickly determined by chemists from vapor tests on fragments left at the scene, said Cpl. Dennis J. Galvin, unit commander of the Fire Marshal's office.

Whether the explosive is dynamite, a water gel, blasting powder or a plastic explosive, "there are a finite number of places that distribute those items, and through an analysis you can break that down" to identify the manufacturer or region the compound is from, Galvin said.

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