The Cutting Edge Against Terrorism

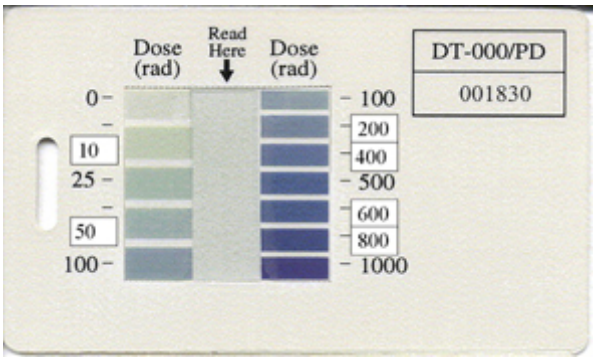
Americans Respond to Fed Call For Anti-Terrorism Ideas

By Claire Shipman

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— More than 12,000 proposals poured in after Sept. 11, 2001, when the federal government put out a blanket call for help — from industry, academia, scientists to fight the war against terrorism.



Now the task is choosing which technology innovations present the best investment to keep Americans safe.

Jeff David, deputy director of the Defense Department's Combating Terrorism Technology Support office, looked at 9,000 of those proposals. David's office manages the federal government's multi-agency Technical Support Working Group, or TSWG.

The group has the task of coordinating all the technology needs across 22 different federal agencies, everyone from the FBI and the State Department to the Federal Aviation Administration and the Department of Energy. The majority of TSWG's funding comes from the Department of Defense. David says a broad search was necessary to find those unknown promising ideas. "You had to look at all of those [proposals] to find those ideas that really were exceptional," he said.

"They've cast a very wide net," said Brett Lambert, vice-president of DFI International, a private technology consulting firm. "It's a little bit like trying to boil the ocean."

Disabling Bombs With Precision

Within that net: a new device designed to disable bombs with extraordinary precision. Bob Bezanson, of the Technical Support Working Group, demonstrated the technology to ABCNEWS, targeting and disabling a mock bomb hidden inside a suitcase.

"It did exactly what it was supposed to do," said Bezanson. "We hit the briefcase exactly where we wanted, which then rendered safe the bomb."

Not only is the device much more accurate than what's available today, but it is also cheaper — making it more accessible to local bomb squads who may need it.

Other examples of new anti-terrorism technology include walls that bend instead of shatter in an explosion, and windows that just pop back in place, all work of the U.S. Army Corps of Engineers. This research was the basis of the structural reinforcements begun at the Pentagon which kept the section struck on Sept. 11, 2001, from collapsing sooner.

The danger of a radiological attack also spurred TSWG to fund a new device since Sept. 11 that potential victims could wear like a badge. The device would instantaneously measure levels of radiation exposure, allowing emergency personnel who arrived on the scene to know immediately who had received the biggest dose. Current technologies take hours or days to retrieve the same data.

And there are cutting-edge tools to aid law enforcement in tracking and following suspected terrorists. A video stabilizer can take the grainy, shaky images usually produced by surveillance cameras and create a clear, steady shot immediately. A license plate number or a suspect's face could be matched to a data base much more quickly, instead of having to wait for a lab to clean up the video after it was recorded.

"Now we're talking about under five minutes to actually get the information to help convict a criminal," said Mike Piacentino of the Sarnoff Corporation, a New Jersey-base technology firm which developed the image stabilizer.

More Ideas Than Money

The government can only fund 60 proposals with the $50 million in funding it got for its post-Sept. 11 request. Given the funding constraints, officials admit they had to reject a lot of good ideas.

At the Transportation Security Administration, which got an additional 5,000 technology ideas to help specifically with aviation security, nearly all resources have had to go towards installing more checked baggage detectors and hiring federal screeners.

Susan Hallowell, the director of technology at TSA's testing laboratory in Atlantic City, told ABCNEWS that, no funding for research and development into future technologies for airports has been possible since Sept. 11.

Among the proposals discarded during the funding slowdown: new technology by Massachusetts-based security technology firm CyTerra that could detect non-metallic weapons — like plastic explosives — on airline passengers. The hand-held device uses ground-penetrating radar — the same technology in CyTerra's next generation landmine detectors purchased by the Army for use in Operating Enduring Freedom.

"They just didn't fund anybody. And that, I find that very troublesome," said David Fine, president and CEO of CyTerra.

But Jeff David argues the most critical tools are getting to those who need them. "We've grown from $115 to almost $200 million in one year — the highest priority projects are getting funded," he said.

The next innovation? A six-wheeled robot that can scale walls or climb up and down stairs inside buildings to look for bombs. Another tool the government wants, but hopes it will never have to use. ■

— ABCNEWS' Kendra Gahagan contributed to this report.