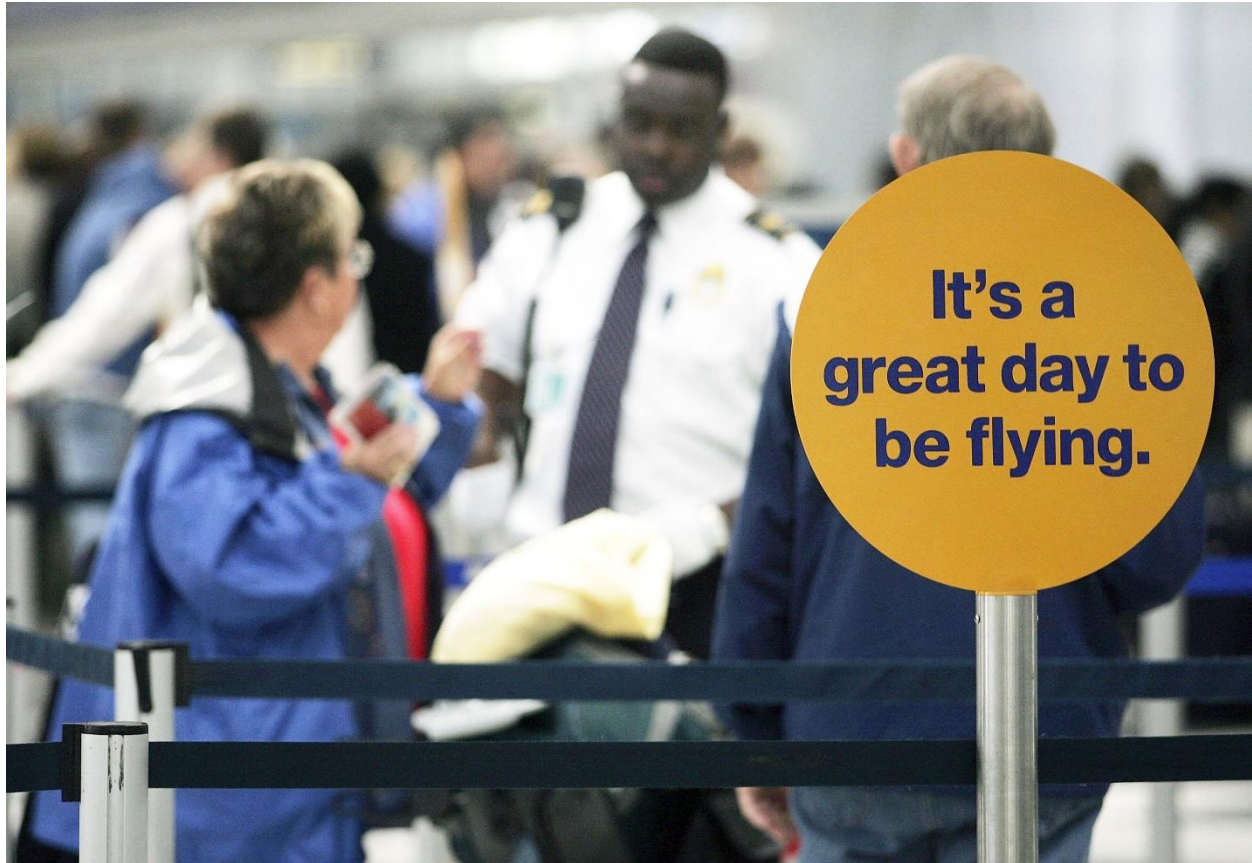


# Smoke Screening

As you stand in endless lines this holiday season, here's a comforting thought: all those security measures accomplish nothing, at enormous cost. That's the conclusion of Charles C. Mann, who put the T.S.A. to the test with the help of one of America's top security experts.

By [Charles C. Mann](#)

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Not until I walked with Bruce Schneier toward the mass of people unloading their laptops did it occur to me that it might not be possible for us to hang around unnoticed near Reagan National Airport's security line. Much as upscale restaurants hang mug shots of local food writers in their kitchens, I realized, the Transportation Security Administration might post photographs of Schneier, a 48-year-old cryptographer and security technologist who is probably its most relentless critic. In addition to writing books and articles, Schneier has a popular blog; a recent search for "TSA" in its archives elicited about 2,000 results, the vast majority of which refer to some aspect of the agency that he finds to be ineffective, invasive, incompetent, inexcusably costly, or all four.

As we came by the checkpoint line, Schneier described one of these aspects: the ease with which people can pass through airport security with fake boarding passes. First, scan an old boarding

pass, he said—more loudly than necessary, it seemed to me. Alter it with Photoshop, then print the result with a laser printer. In his hand was an example, complete with the little squiggle the T.S.A. agent had drawn on it to indicate that it had been checked. “Feeling safer?” he asked.

Ten years ago, 19 men armed with utility knives hijacked four airplanes and within a few hours killed nearly 3,000 people. At a stroke, Americans were thrust into a menacing new world. “They are coming after us,” C.I.A. director George Tenet said of al-Qaeda. “They intend to strike this homeland again, and we better get about the business of putting the right structure in place as fast as we can.”

The United States tried to do just that. Federal and state governments embarked on a nationwide safety upgrade. Checkpoints proliferated in airports, train stations, and office buildings. A digital panopticon of radiation scanners, chemical sensors, and closed-circuit television cameras audited the movements of shipping containers, airborne chemicals, and ordinary Americans. None of this was or will be cheap. Since 9/11, the U.S. has spent more than \$1.1 trillion on homeland security

To a large number of security analysts, this expenditure makes no sense. The vast cost is not worth the infinitesimal benefit. Not only has the actual threat from terror been exaggerated, they say, but the great bulk of the post-9/11 measures to contain it are little more than what Schneier mocks as “security theater”: actions that accomplish nothing but are designed to make the government look like it is on the job. In fact, the continuing expenditure on security may actually have made the United States less safe.

The first time I met Schneier, a few months after 9/11, he wanted to bet me a very expensive dinner that the United States would not be hit by a major terrorist attack in the next 10 years. We were in Washington, D.C., visiting one of the offices of Counterpane Internet Security, the company he had co-founded in 1999. (BT, the former British Telecom, bought Counterpane seven years later; officially, Schneier is now BT’s chief security technology officer.) The bet seemed foolhardy to me. Defense Secretary Donald Rumsfeld had just told *The Washington Times* that al-Qaeda was dispersing its killers all over the world.

From an airplane-hijacking point of view, Schneier said, al-Qaeda had used up its luck. Passengers on the first three 9/11 flights didn’t resist their captors, because in the past the typical consequence of a plane seizure had been “a week in Havana.” When the people on the fourth hijacked plane learned by cell phone that the previous flights had been turned into airborne bombs, they attacked their attackers. The hijackers were forced to crash Flight 93 into a field. “No big plane will ever be taken that way again, because the passengers will fight back,” Schneier said. Events have borne him out. The instigators of the two most serious post-9/11 incidents involving airplanes—the “shoe bomber” in 2001 and the “underwear bomber” in 2009, both of whom managed to get onto an airplane with explosives—were subdued by angry passengers.

Schneier’s sanguine views had little resonance at a time when the fall of the twin towers was being replayed nightly on the news. Two months after 9/11, the Bush administration created the Transportation Security Agency, ordering it to hire and train enough security officers to staff the

nation's 450 airports within a year. Six months after that, the government vastly expanded the federal sky-marshal program, sending thousands of armed lawmen to ride planes undercover. Meanwhile, the T.S.A. steadily ratcheted up the existing baggage-screening program, banning cigarette lighters from carry-on bags, then all liquids (even, briefly, breast milk from some nursing mothers). Signs were put up in airports warning passengers about specifically prohibited items: snow globes, printer cartridges. A color-coded alert system was devised; the nation was placed on "orange alert" for five consecutive years. Washington assembled a list of potential terror targets that soon swelled to 80,000 places, including local libraries and miniature-golf courses. Accompanying the target list was a watch list of potential suspects that had grown to 1.1 million names by 2008, the most recent date for which figures are available. Last year, the Department of Homeland Security, which absorbed the T.S.A. in 2003, began deploying full-body scanners, which peer through clothing to produce nearly nude images of air passengers.

Bruce Schneier's exasperation is informed by his job-related need to spend a lot of time in Airportland. He has 10 million frequent-flier miles and takes about 170 flights a year; his average speed, he has calculated, is 32 miles an hour. "The only useful airport security measures since 9/11," he says, "were locking and reinforcing the cockpit doors, so terrorists can't break in, positive baggage matching"—ensuring that people can't put luggage on planes, and then not board them—"and teaching the passengers to fight back. The rest is security theater."

Remember the fake boarding pass that was in Schneier's hand? Actually, it was mine. I had flown to meet Schneier at Reagan National Airport because I wanted to view the security there through his eyes. He landed on a Delta flight in the next terminal over. To reach him, I would have to pass through security. The day before, I had downloaded an image of a boarding pass from the Delta Web site, copied and pasted the letters with Photoshop, and printed the results with a laser printer. I am not a photo-doctoring expert, so the work took me nearly an hour. The T.S.A. agent waved me through without a word. A few minutes later, Schneier deplaned, compact and lithe, in a purple shirt and with a floppy cap drooping over a graying ponytail.

The boarding-pass problem is hardly the only problem with the checkpoints. Taking off your shoes is next to useless. "It's like saying, Last time the terrorists wore red shirts, so now we're going to ban red shirts," Schneier says. If the T.S.A. focuses on shoes, terrorists will put their explosives elsewhere. "Focusing on specific threats like shoe bombs or snow-globe bombs simply induces the bad guys to do something else. You end up spending a lot on the screening and you haven't reduced the total threat."

As I waited at security with my fake boarding pass, a T.S.A. agent had darted out and swabbed my hands with a damp, chemically impregnated cloth: a test for explosives. Schneier said, "Apparently the idea is that al-Qaeda has never heard of latex gloves and wiping down with alcohol." The uselessness of the swab, in his view, exemplifies why Americans should dismiss the T.S.A.'s frequent claim that it relies on "multiple levels" of security. For the extra levels of protection to be useful, each would have to test some factor that is independent of the others. But anyone with the intelligence and savvy to use a laser printer to forge a boarding pass can also pick up a stash of latex gloves to wear while making a bomb. From the standpoint of security, Schneier said, examining boarding passes and swabbing hands are tantamount to performing the

same test twice because the person you miss with one test is the same person you'll miss with the other.

After a public outcry, T.S.A. officers began waving through medical supplies that happen to be liquid, including bottles of saline solution. “You fill one of them up with liquid explosive,” Schneier said, “then get a shrink-wrap gun and seal it. The T.S.A. doesn’t open shrink-wrapped packages.” I asked Schneier if he thought terrorists would in fact try this approach. Not really, he said. Quite likely, they wouldn’t go through the checkpoint at all. The security bottlenecks are regularly bypassed by large numbers of people—airport workers, concession-stand employees, airline personnel, and T.S.A. agents themselves (though in 2008 the T.S.A. launched an employee-screening pilot study at seven airports). “Almost all of those jobs are crappy, low-paid jobs,” Schneier says. “They have high turnover. If you’re a serious plotter, don’t you think you could get one of those jobs?”

The full-body-scanner program—some 1,800 scanners operating in every airport in the country—was launched in response to the “underwear bomber” incident on Christmas Day in 2009, when a Nigerian Muslim hid the plastic explosive petn in his briefs and tried to detonate it on a flight from Amsterdam to Detroit. It has an annual price tag of \$1.2 billion. The scanners cannot detect petn directly; instead they look for suspicious bulges under clothing. Because petn is a Silly Putty-like material, it can be fashioned into a thin pancake. Taped flat to the stomach, the pancake is invisible to scanning machines. Alternatively, attackers could stick gum-size wads of the explosive in their mouths, then go through security enough times to accumulate the desired amount.

Staffing the airport checkpoints, at least in theory, are “behavioral detection officers,” supposedly trained in reading the “facial microexpressions” that give away terrorists. It is possible that they are effective, Schneier says—nobody knows exactly what they do. But U.S. airlines carried approximately 700 million passengers in 2010. In the last 10 years, there have been 20 known full-fledged al-Qaeda operatives who flew on U.S. planes (the 9/11 hijackers and the underwear bomber, who was given explosives by a Yemeni al-Qaeda affiliate). Picking the right 20 out of 700 million is simply not possible, Schneier says.

After the airport checkpoint, an additional layer of security is provided, in theory, by air marshals. At an annual cost of about \$1.2 billion, as many as 4,000 plainclothes police ride the nation’s airways—usually in first class, so that they can monitor the cockpit. John Mueller, co-author of *Terror, Security, and Money*, a great book from which I drew much information for this article, says it’s a horrible job. “You sit there and fly and you can’t even drink or listen to music, because you can’t have headphones on. You have to stay awake. You are basically just sitting there, day after day.” Unsurprisingly, there’s a lot of turnover—“you’re constantly training people, which is expensive.” Worse, the program has had no measurable benefit. Air marshals have not saved a single life, although one of them did shoot a deranged passenger a few years ago.

Has the nation simply wasted a trillion dollars protecting itself against terror? Mostly, but perhaps not entirely. “Most of the time we assess risk through gut feelings,” says Paul Slovic, a psychology professor at the University of Oregon who is also the president of Decision

Research, a nonprofit R&D organization. “We’re not robots just looking at the numbers.” Confronted with a risk, people ask questions: Is this a risk that I benefit from taking, as when I get in a car? Is it forced on me by someone else, as when I am exposed to radiation? Are the potential consequences catastrophic? Is the impact immediate and observable, or will I not know the consequences until much later, as with cancer? Such questions, Slovic says, “reflect values that are sometimes left out of the experts’ calculations.”

Security theater, from this perspective, is an attempt to convey a message: “We are doing everything possible to protect you.” When 9/11 shattered the public’s confidence in flying, Slovic says, the handful of anti-terror measures that actually work—hardening the cockpit door, positive baggage matching, more-effective intelligence—would not have addressed the public’s dread, because the measures can’t really be seen. Relying on them would have been the equivalent of saying, “Have confidence in Uncle Sam,” when the problem was the very loss of confidence. So a certain amount of theater made sense. Over time, though, the value of the message changes. At first the policeman in the train station reassures you. Later, the uniform sends a message: train travel is dangerous. “The show gets less effective, and sometimes it becomes counterproductive.”

Terrorists will try to hit the United States again, Schneier says. One has to assume this. Terrorists can so easily switch from target to target and weapon to weapon that focusing on preventing any one type of attack is foolish. Even if the T.S.A. were somehow to make airports impregnable, this would simply divert terrorists to other, less heavily defended targets—shopping malls, movie theaters, churches, stadiums, museums. The terrorist’s goal isn’t to attack an airplane specifically; it’s to sow terror generally. “You spend billions of dollars on the airports and force the terrorists to spend an extra \$30 on gas to drive to a hotel or casino and attack it,” Schneier says. “Congratulations!”

What the government should be doing is focusing on the terrorists when they are planning their plots. “That’s how the British caught the liquid bombers,” Schneier says. “They never got anywhere near the plane. That’s what you want—not catching them at the last minute as they try to board the flight.”

To walk through an airport with Bruce Schneier is to see how much change a trillion dollars can wreak. So much inconvenience for so little benefit at such a staggering cost. And directed against a threat that, by any objective standard, is quite modest. Since 9/11, Islamic terrorists have killed just 17 people on American soil, all but four of them victims of an army major turned fanatic who shot fellow soldiers in a rampage at Fort Hood. (The other four were killed by lone-wolf assassins.) During that same period, 200 times as many Americans drowned in their bathtubs. Still more were killed by driving their cars into deer. The best memorial to the victims of 9/11, in Schneier’s view, would be to forget most of the “lessons” of 9/11. “It’s infuriating,” he said, waving my fraudulent boarding pass to indicate the mass of waiting passengers, the humming X-ray machines, the piles of unloaded computers and cell phones on the conveyor belts, the uniformed T.S.A. officers instructing people to remove their shoes and take loose change from their pockets. “We’re spending billions upon billions of dollars doing this—and it is almost entirely pointless. Not only is it not done right, but even if it was done right it would be the wrong thing to do.”