Bioterrorism: Calibrating Threats and Responses

By
Brad Roberts

Remarks to
Pacific Forum CSIS
Honolulu International Forum,
Honolulu, Hawaii
April 30, 2003

Issues & Insights
Vol. 3 – No. 3

Pacific Forum CSIS
Honolulu, Hawaii
May, 2003

Pacific Forum CSIS

Based in Honolulu, Pacific Forum CSIS operates as the autonomous Asia-Pacific arm of the Center for Strategic and International Studies in Washington, D.C. The Forum's programs encompass current and emerging political, security, economic/business, and oceans policy issues through analysis and dialogue undertaken with the region's leaders in the academic, government, and corporate areas. Founded in 1975, it collaborates with a broad network of research institutes from around the Pacific Rim, drawing on Asian perspectives and disseminating project findings and recommendations to opinion leaders, governments, and members of the public throughout the region.

Bioterrorism:
Calibrating Threats and Responses

Table of Contents

Bioterrorism:
Calibrating Threats and Responses

Executive Summary

For much of the past decade, specialists have debated the intent of terrorists and whether they would use weapons of mass destruction (WMD) to their full destructive capabilities. The terrorist attack of Sept. 11, 2001 not only brought the realities of mass casualties into sharp focus, but also highlighted important weaknesses in U.S. efforts to manage the crisis. Sept. 11 introduced a profound sense of uncertainty and insecurity into American life.

In this volume, Dr. Brad Roberts, a member of the research staff at the Institute for Defense Analyses, discusses how terrorism (in particular, bioterrorism) and the threat of WMD have profoundly shifted U.S. perspectives about security, stability, and how U.S. power can be used to achieve those aims, in a post-Sept. 11 world. This volume aims to dispel some of this uncertainty and fear through an in-depth discussion of the threats and risks of WMD, and by highlighting important distinctions between the risks facing U.S. society and the risks facing individual U.S. citizens.

There are four major terrorist threats to the U.S. – Al-Qaeda, Iraq, American militia groups, and copycats. Each threat has different implications that must be considered when trying to fashion a response. Responses must reflect that individual risks are very different from those of the society as a whole. Counterterrorism has evolved conceptually along with the escalation of the risk and destructive capacities of terrorist acts. The possibility of mass casualties has given rise to a counterterrorism strategy that focuses increasingly on consequence management and protection, in addition to prevention and punishment.

Terrorism's strategic logic has altered the political landscape. Because a terrorist threat is not easily knowable in itself, intelligence analysts can anticipate risks but not specific threats. The Bush administration has decided that U.S. power should be used to preempt mass casualty terrorism through preventive wars to remove regimes that support terrorists. This is a profound strategic shift. This projection of U.S. power will likely destabilize the global balance of power as the Bush administration seeks to assure U.S. predominance in the international arena.

Bioterrorism: Calibrating Threats and Responses
by Brad Roberts

Are we at the brink of a major bioterrorism attack on America? This question has gripped the American public amid the steady drumbeat of bad news in recent days and weeks: the drift toward war with Iraq, Osama bin Laden's taped statement, and the Code Orange alert from the federal government. Newspaper reports of federal guidelines for emergency response have sent many families to Home Depot to buy duct tape and plastic sheeting and to make plans for emergency supplies and evacuation. These are scary times. A lot of the fear is simply fear of the unknown. This we can dispel. Some of the fear is fear of the possible. Let us not give ourselves over to paranoia. The purpose of these remarks is to sketch out a few arguments about the likelihood and potential consequences of biological weapon terrorism for American society and for individual Americans to free us of the twin fears of the unknown and paranoia.

Risks vs. Threats

A bit of background might be useful. The threat of bioterrorism has been hotly debated within the expert community for at least a decade. For most Americans, the advent of modern terrorism is associated with the airliner skyjackings of the 1960s. From then until the 1990s, terrorists seemed neither willing nor able to exploit biological weapons (or chemical or nuclear ones, for that matter) for their purposes. In the famous words of a RAND analyst, they wanted "a lot of people watching but not a lot of people dead." Terrorism was political theater, played out for an audience and with an appeal to their moral sensibilities to finally do the right thing (e.g., grant the PLO a homeland or cede Northern Ireland to the IRA). A few terrorist groups dabbled in chemical and biological weapons (CBW) but turned away from them as unnecessary or counterproductive (killing "too many" would turn folks against their cause). Then came the 1993 bombing of the World Trade Center, the attack on U.S. military forces and families at Khobar Towers in Saudi Arabia, Aum Shinrikyo and sarin nerve gas in the Tokyo subway, Oklahoma City, revelations about Aum's planned attacks on Disneyland, and then in 1998 bin Laden's "fatwa" declaring holy war on Americans wherever they stand (and establishing a holy

duty to acquire weapons of mass destruction). Something profound had changed. But what precisely? Are terrorists – some or all of them – going to do the things we most fear?

The expert community has been divided over this question for the last five to seven years. In one camp are those who see it as "only a matter of time" before terrorists exploit weapons of mass destruction (WMD) for their full lethal potential – to kill in the thousands or even millions. In another camp are those who see terrorists as restrained from seeking mass casualties by the concern with not killing "too many." Outside observers have had a difficult time knowing if the first camp consists mostly of "Chicken Littles" – or the "Boy Who Cried Wolf." Then came Sept. 11, which seemed to settle this debate. Here after all is a group that is apparently both willing and able to inflict mass casualties. Moreover, al-Qaeda's interest in chemical and biological and even nuclear weapons has been clearly established.

But in some basic sense, the expert debate has not been resolved. When it comes to biological weapons (and other weapons of mass destruction), there is a big – no, huge – difference between using these weapons and exploiting their full lethal potential. There seems good reason to think that al-Qaeda is interested in using biological, chemical, and radioactive substances in its attacks on Americans and American targets. But this is quite different from saying that there is good reason to think that al-Qaeda is going to exploit such weapons to kill thousands or even the millions that might be possible. We know that al-Qaeda wants to kill Americans. We know that it doesn't mind indiscriminate killing ("God will know which souls are his"). We know that it is interested in CBW.

We don't know how it thinks about the "killing too many problem" noted above. In this context we should understand that Sept. 11 could have been far deadlier than it was. Al-Qaeda seems not to have sought to inflict the maximum number of casualties; instead, it was motivated primarily to destroy potent targets and symbols and along the way kill people. Also on record is one of the Sept. 11 plotters who, when asked why they did not target nuclear power plants that day, asserted that they refrained from doing so "because things would have gotten out of hand."

This view – whatever it means – doesn't fit tidily into the view of al-Qaeda as committed to killing as many as possible simply for the sake of killing as many people as possible.

So what does this tell us about the threat? It is not easily knowable. We want to believe that government can discover the threat and communicate it to us clearly. But the reality is a good deal fuzzier. The threat is a mystery and may well remain so until and if some attack occurs. In the Cold War, intelligence analysts could count Soviet tanks, identify the Soviet "order of battle" from the Fulda Gap in Germany back into the Siberian hinterland, and see and thus plan against a known threat. Today, intelligence analysts can see risks but not specific threats. But we can see that those risks are rising. Terrorists intentions and capabilities seem to be moving in the direction of exploiting CBW.

Let us turn to a more detailed exploration of the intentions and capabilities of specific terrorist actors now of concern.

Current Specific Risks

In my view, the current risks fall into the following principal categories:

1. Al-Qaeda – in general and specifically in time of U.S. war against Iraq.
2. Iraq in time of war or near war.
3. America's homegrown terrorists.
4. Copycats.

First, al-Qaeda: Al-Qaeda is a movement rather than an organization and thus its operates at many different levels.

- The lowest tier is the rank-and-file membership – the terrorist loners, the typically not very bright fellows who think that a bomb in the shoe or a radiological dispersal device might be a grand idea, and who elicit a bit of money and support from contacts in their

mosque. We can hope and perhaps expect that the rank-and-file soldiers in this war would have no more success with CBW than they've had with these other devices.

- In the middle ranks of the movement are the terrorist professionals. These are people who have devoted a career to terrorism and often have extensive operational training from prior military or intelligence service. More skilled than the rank and file, they would seem more capable of conducting effective CBW attacks. But their training is in more conventional terrorist operations. And by and large they have been successful in their careers because of such operations. Thus they may not be particularly interested in or innovative with CBW techniques of terror.
- At the top of the organization is the leadership board. Past practice suggests that this inner core takes a strong interest in planning the periodic – every 18 months or so – "terrorist spectaculars." These attacks are scripted to suggest a high degree of sophistication and coordination as well as skill in penetrating established protective measures. If this level of the organization is committed to the exploitation of weapons of mass destruction for their full lethal potential, then this is far more worrisome than interest at the other levels. On the other hand, al-Qaeda leadership apparently began this war against the United States and the West without weapons of mass destruction and has not so far acted, in the way many expected, to escalate the punishment doled out to America. Moreover, it has not attacked America's weakest biologic point – its vulnerability to a smallpox epidemic – while it has watched the U.S. government significantly close this window of vulnerability over the last two years. So perhaps al-Qaeda leaders are wedded to the notion that they can win without WMD. Or perhaps they believe that killing indiscriminately while striking targets of symbolic or other significance can be seen by al-Qaeda supporters as a necessary evil, whereas killing for the purpose of killing and doing so in the millions cannot be seen as an acceptable evil. This is another mystery.

How likely is it that al-Qaeda will conduct attacks to support Saddam Hussein? The administration has tried to persuade the U.S. public (and world opinion) that the linkage between al-Qaeda and Iraq is strong, though without much success. In my view, bin Laden's February

statement calling on Muslims to fight a U.S.-led invasion of Iraq. was aimed in part at this American debate, with the intention of decisively settling it. Bin Laden wants an American war against Saddam, for all sorts of reasons, although he is no supporter of Saddam. It is conceivable that he would like to see terrorism against America now explicitly for the purpose of driving America to war. It is also conceivable that in the course of war he would conduct such attacks, but covertly and in a way that suggests Iraq is responsible, with the hope that this would induce a stiff American reply against Iraq. The use of nuclear weapons by the United States (or Israel) may well be seen as a desirable goal for bin Laden – as such use might greatly discredit the user. These are possibilities rather different from the one that has concentrated the thinking of many Americans – that somehow al-Qaeda and Iraq would make common cause to confront the United States. Alas, that too is a possibility. Obviously, this is a wildly unpredictable set of scenarios.

Bin Laden's recent threatening message may also have been aimed at the transatlantic debate, given the rising resistance of some European countries to the Bush administration's plan for war. They have argued that going later is better than going now, so that there can be more time to catch Saddam with inspections. Bin Laden seems to want to send the message that waiting means suffering more terrorist attacks. How many people will want to wait for war against Iraq if there is another "terrorist spectacular" in America? Our gut instinct would probably lean in the other direction. Thus bin Laden may have been trying to sweep out of the way two potential barriers to a U.S. war against Iraq.

Second, Iraq: What about the risks of bioterrorist attacks by Iraq in time of war or near war?

Most Americans have come to accept the argument that Saddam is likely to unleash terrorism on America once he comes to accept that his survival as leader of Iraq is indeed in question. The strategic logic of such terrorism would be that by making Americans fearful American leaders could be persuaded to sue for peace in a way that leaves his power intact. It is important to understand that if Saddam is to achieve this goal he would have to exhibit some restraint in his terrorist attacks. He would have to hope that killing a few of us would be enough

to make us fearful and withdraw, under the threat of his further punishment to come if we do not do so. But kill too many of us, and he will have succeeded primarily in angering us and in putting huge pressure on the president to seek the most immediate and decisive possible end to the Saddam threat. Dictators often mistake democracies for being wimpy because they are also peace-loving. Hitler and Tojo made the same mistake. Let us hope Saddam understands this.

There is also an argument along the lines of "in for a penny, in for a pound." If Saddam comes to accept that he may have to use biological weapons in a last resort circumstance and in a very high stakes game for survival, he or his military advisors might also come to believe that using biological weapons early in war against the United States could create the kind of fait accompli from which Baghdad might attempt to sue for peace. By this logic, use it early, not late; use it against soldiers through the region, not just on the battlefield; use it against American allies, though perhaps not yet the United States.

This is another mystery on the landscape before us. There is no intelligence good enough to tell us how Iraq will use biological weapons – only how it might.

In speculating about these possibilities, the U.S. expert community tends to worry about the possibilities of anthrax, botulinum toxin, and perhaps smallpox. We should worry, because two of the three (anthrax and bot.tox.) were a part of the arsenal of biological weapons that Iraq finally admitted having a decade ago. The third (smallpox) is closely related to the camelpox that Iraq has also acknowledged having worked with; indeed, there is other evidence that Iraq was at work on smallpox (reports of the famous "smallpox machine" for drying the spores discovered by UNSCOM inspectors). But I am frankly worried that this expert view of the Iraqi BW threat may be rather out of date. After all, Iraq has had another dozen years to work on its biological weapons. It has foregone approximately $120 billion because of UN sanctions to continue its WMD work. Those semi-trailer laboratories haven't been driving around Iraq just to keep scientists out of the eyes of prying inspectors. Our potential for technical surprise here is substantial. We may see biological warfare agents we haven't so far thought about delivered

against us by means we never considered. Biotechnology has potentially had a revolutionary effect on the threat and our thinking seems hardly to have accounted for this.

Third, homegrowns: Prior to Sept. 11 any discussion of BW terrorism in the United States would have spent considerable time focused on the militia movement.

America's militia movements have exhibited considerable interest in the use of poisons. They have created pockets of special expertise on biological warfare. Moreover, some of them seem hardly to have lost their vision of a great race war in America.

Moreover, we also have the unhappy experience in this country of terrorist loners. Recall the Unabomber, who for 19 years escaped capture until his brother turned him in. Recall the Alphabet bomber of Los Angeles in the 1970s – a loner masquerading as a group who in fact developed a chemical warfare agent for use. Recall also the perpetrator of the anthrax letter mailings of 15 months ago – perhaps a lone American, perhaps not. This is yet another mystery.

Fourth, copycats: The history of terrorism is the history of copycatting. Tactical innovation by one group (or individual – often the real innovators) is often followed by mimicry by others. Recall that wave of anthrax spoofs that followed the alleged anthrax mailing to the B'nai Birth headquarters in 1997. Many Americans are unfamiliar with the wave of copycat attacks in Japan that followed Aum Shinrikyo's use of sarin gas on the Tokyo subway. If al-Qaeda or Iraq uses BW in a future terrorist attack, others can be expected to follow suit.

Risks: Societal vs. Personal

These arguments so far about risk are about the risks to our society that various terrorist actors might pose. What about the risks to us as individuals?

These are a quite different matter. The statistics of probability matter here. Consider Sept. 11, 2001, the worst day in U.S. history to be either flying or in the World Trade Center. Of

the thousands of airplanes in the air that morning, more than 99 percent made it safely home. Of the scores of thousands of people in the World Trade Center and Pentagon (and the other targets bin Laden had intended to strike), fewer than 4,000 didn't make it safely home. Of the 50,000 or so people in the Pentagon, all but about 100 went home. These were great tragedies but even for those mostly directly affected by the attacks the survivability rate was dramatic. And this is as it often is with terrorism.

Many Americans have in their heads images of wars of mass destruction that are rooted in the Cold War. Nuclear use means to us nuclear Armageddon. We tend to assume that biological weapons must be the same. In fact, achieving wide area effects with these weapons is difficult, unless you have lots of them. Covert terrorist cells will not be able to do so. Detonation of a small improvised nuclear weapon anywhere in Washington D.C. would leave more than 99 percent of the buildings intact and safe to occupy. I don't mean to diminish the human costs and suffering associated with such attacks; I wish only to underscore the grim but important lesson that our individual risks are different from societal risks. Many people recall that Saddam Hussein fired missiles into Israel in the Gulf War of a dozen years ago; few people recall that the only fatalities were those who suffered heart attacks from the stress.

Matching the "Solution" to the "Problem"

The expert community is in fairly broad agreement about the risks of bioterrorism as I have sketched them out. Yet there is very deep division about what needs to be done.

Back before there was much concern about the risks of mass casualty terrorism, counterterrorism focused on prevention and punishment. Prevention encompassed intelligence and law enforcement cooperation to identify terrorists and put them in jail. Punishment encompassed much the same, but after their attacks, with a heavy emphasis on bringing the perpetrators to justice, with the hope that this would have a deterrent effect on others. But rising concern about chemical and biological terrorism compelled the counterterrorism community to look beyond prevention and punishment to "consequence management" – i.e., efforts to cope

with the public health and other consequences of attacks not prevented. As experts began to recognize just how difficult such consequence management could be in a massive biological attack, attention shifted to the possibilities of protection – especially medical protection, i.e., vaccination. So in the period of a few short years the conceptual arsenal of counterterrorism has expanded significantly to encompass the new challenge: from prevention and punishment to consequence management and protection.

But put all the pieces together, and what are you left with? The Bush administration's answer is quite clear: not enough. It has concluded that this is not a problem that can be worked "on defense." We will lose a war brought to us unless we can successfully take the war to them. Why might they think this way? Are they right?

Consider a meeting in the White House in December 2002 (this is a fictional scenario, so far as I know). Fifteen months after September 11, where are we in the so-called war on terror?

- A significant portion of the leadership of al-Qaeda remains at large, including bin Laden.
- A significant portion of the individuals who passed through al-Qaeda's training camps remain at large.
- No one believes that the ferment in the Islamic world of which al-Qaeda is in part a reflection will subside any time soon. America's great scholar of the Middle East, Bernard Lewis, is writing about "What Went Wrong" not about How to Make it Right Quickly.
- After endless negotiations on the reorganization of the federal government to create a new Department of Homeland Defense, there is a dawning recognition that it will be impossible to close off many of America's terrorist vulnerabilities and, for those that can be closed, years will be required.
- The barriers to terrorist access to the WMD capabilities of states are also eroding. To be sure, no state seems to have established as a matter of policy handing WMD to terrorists. But terrorists are getting some training they did not before – for example, al-Qaeda being trained by Iraq in CBW. They are getting technologies and materials. They are getting

support from rogue intelligence operations even when this conflicts with the policies of the central government. Moreover, in some important countries, the state doesn't even have the upper hand when it comes to dealing with terrorists. There are terrorism sponsored states. There are enablers of terrorism that aren't states (e.g., criminal organizations). And the strategic logic of terrorist use of WMD seems much more compelling than we had hoped.

This suggests quite simply that a counterterrorism strategy based on prevention, punishment, consequence management, and protection cannot be enough. When it comes to biological terrorism, we seem unlikely ever to know when, where, or how these weapons will be used. We cannot wait. We cannot cope with the consequences of thousands or more dead. That is a world we choose not to live in.

Whether such an assessment took place at the White House I certainly cannot say. But the president has made some bold and emphatic statements with far-reaching implications – statements largely forgotten today. He has said "the American public will not be threatened" by weapons of mass destruction and that "time is not on our side." We should remember these as bright lines in the sand such as the senior President Bush drew following the Iraqi annexation of Kuwait ("this aggression will not stand"). So President Bush has expanded the "tool kit" beyond prevention, etc., to include also preemption and preventive wars of regime removal.

In fact, the strategic choice he has made is more profound. It relates to American power. In the post-Cold War era, the central global strategic question is what the United States will do with all its power. Many Americans and others advise restraint. Work in concert with others, goes the argument, to build cooperative security structures based on common interests so that there is no counterbalancing of American power by "rogues," terrorists, or eventually other major powers. The Bush administration has taken the opposite tack. Its national security strategy emphasizes repeatedly the responsibility to exercise power – especially "hard" power as opposed to "soft" (that is, military means as opposed to political or economic ones). Conspicuous by its absence in the strategy are any arguments about the responsibility to exercise leadership.

Evidently, leadership is understood as the "follower-ship" born of success. The Bush vision is of the bold use of American power, not merely to confront and defeat those who would take our security from us, but to remake the world in a manner consistent with U.S. interests and values. It believes that in doing so it will create the foundations of a just peace. Moreover, it argues that the country must move with equal boldness to increase U.S. power so that the global balance of power is replaced by American predominance.

This seems a very long way from the risks of bioterrorism. But it is directly connected. The threat of WMD attacks on the American people from terrorists and rogue states has helped fuel some rather profound shifts in thinking about how to achieve security and stability and about the uses of American power. In my view, there are some breathtaking gambles here. And although I criticize some of the strategic logic, I do not know that the strategy is wrong. Indeed, we *cannot* know because we cannot know precisely just how dangerous the brew of terrorists and WMD might yet become.

About the Author

Dr. Brad Roberts is a member of the research staff at the Institute for Defense Analyses and also chairman of the research advisory council of the Chemical and Biological Arms Control Institute. In addition, he is an adjunct professor at George Washington University. The views expressed here are his own and should not be attributed to any institution.