
WMD Terrorism

Science and Policy Choices

edited by Stephen M. Maurer

The MIT Press
Cambridge, Massachusetts
London, England

© 2009 Massachusetts Institute of Technology

All rights reserved. No part of this book may be reproduced in any form by any electronic or mechanical means (including photocopying, recording, or information storage and retrieval) without permission in writing from the publisher.

MIT Press books may be purchased at special quantity discounts for business or sales promotional use. For information, please e-mail special_sales@mitpress.mit.edu or write to Special Sales Department, The MIT Press, 55 Hayward Street, Cambridge, MA 02142.

This book was set in Sabon on 3B2 by Asco Typesetters, Hong Kong and was printed and bound in the United States of America.

Library of Congress Cataloging-in-Publication Data

WMD terrorism : science and policy choices / edited by Stephen M. Maurer.

p. cm.

Includes bibliographical references and index.

ISBN 978-0-262-01298-0 (hardcover : alk. paper) — ISBN 978-0-262-51285-5 (pbk. : alk. paper)

1. Weapons of mass destruction. 2. Weapons of mass destruction—Government policy—United States. 3. Terrorism—United States—Prevention. 4. Terrorism—Government policy—United States. 5. National security—United States. I. Maurer, Stephen M. II. Title: Weapons of mass destruction terrorism.

U793.W2 2009

363.325'3—dc22

2008044225

10 9 8 7 6 5 4 3 2 1

Introduction: Worrying about WMD Terrorism

Stephen M. Maurer

The idea that terrorists would soon acquire nuclear, chemical, and biological weapons was widespread by the late 1940s. Since then, generations of novelists and filmmakers have popularized the idea (see, e.g., Fleming [1959] 2002). Sixty years later, however, very little has happened. Given this evidence, it is only fair to ask whether WMD terrorism is worth worrying about.

The question is further confused by definitions. Since the Iraq War, the always-elastic phrase “weapons of mass destruction” or “WMD” has stretched to the point where it includes a single artillery shell of mustard gas (Fox News, 2004). This usage was, of course, inevitable given the Bush administration’s after-the-fact efforts to show that its Iraq War arguments were correct. There is also a certain verbal appeal: if WMD is conventionally divided into chemical, biological, radiological, and nuclear (collectively, “CBRN”) categories, then it is surely tempting—though not, strictly speaking, logical—to reverse the definition by saying that any weapon based on these principles qualifies as “WMD.” Finally, it makes a kind of legal sense. Nation-states have tried to limit the spread of new weapons technologies through norms and (more fitfully) treaties since the late nineteenth century. But what, exactly, qualifies as a violation? In this environment, it may be acceptable and even desirable to keep the outer limits of WMD vague. At the same time, none of this is satisfying. A term invented to describe nuclear explosions is now used to describe weapons that may be less lethal than high explosives. Worse, it rewrites history. Sixty-six million chemical weapons shells were fired during the First World War. Does it really add anything to call these “weapons of mass destruction,” particularly when “ordinary” high explosives seem to have been slightly more lethal? (Harris and Paxman 2002).

Clearly, there is nothing to stop us from saying with Humpty Dumpty that WMD “means what I choose it to mean” (Carroll [1872] 2000). But we should at least choose a meaning that is useful. For purposes of this book, at least, we return to our original instinct that “WMD” is qualitatively different from ordinary weapons.

This immediately suggests violence on a dramatically larger scale than the 2,752 deaths caused by hijacked airliners on September 11 (9/11 Commission 2004). This benchmark is already useful to the extent that it suggests casualties (or at least psychological impacts) much larger than those that precipitated the War on Terror. Nevertheless, it is possible to sharpen the intuition still further. This is, after all, a book about *WMD terrorism*. At what level does the ability to practice violence produce a qualitative change in terrorism itself?

1.1 The Old Terrorism

In the broadest sense, terrorism is not new. There have always been small groups like the Sicarii (first century), Assassins (eleventh to the thirteenth centuries), and Thugs (seventeenth to the nineteenth centuries) who used the threat of violence to intimidate much larger opponents. Calling these groups terrorists, however, is not really accurate. Their understanding of violence was limited to relatively simple strategies like carrying out tit-for-tat threats or pursuing religious goals that transcended politics altogether. What they did not do—what no one seems to have even imagined before the eighteenth century—was to understand that terror could become a social phenomenon in its own right, separate and apart from the violence that spawned it. Still less could they have imagined the example of the French Revolution, in which a carefully manipulated Terror achieved political goals out of all proportion to the number of actual victims.

Even then, such tactics—like all large-scale violence—seemed to be a state monopoly. The idea that small groups could also practice terror required a further act of imagination. The first theoretical suggestion that small groups could amplify their influence through terrorism dates to Karl Heinzen in 1848. Actual efforts to practice terrorism began a generation later with the People's Will in Russia (1870s) and various European anarchist groups (1890s). Even if terror could be achieved, however, it was never entirely clear how groups could use it to achieve their ends. Nineteenth-century terrorists assumed, somewhat doubtfully, that assassinating perhaps a dozen key leaders would destroy the state and allow a new and better order to spring up. Actual experience was, to say the least, discouraging. For one thing, ministers showed an astonishing willingness to replace their assassinated colleagues. More fundamentally, even successful efforts to topple governments (e.g., Russia) invariably ended by installing more reactionary regimes. By the early twentieth century, terrorism had largely fallen out of favor with orthodox Marxists and even anarchists. For modern revolutionaries, terrorism—when mentioned at all—is almost always subservient to political agitation (Laqueur 2002).

Table 1.1
Terrorist strategies (1870–1990)

Announced strategy	Examples	Success
Destroying the state by attacking the government	Russia (1870s)	Poor
Destroying the state by attacking the economy	Italy (1970s), Germany (1970s)	Poor
Publicizing ideology	Germany (1970s), Italy (1970s)	Moderate
Extorting concessions	Russia (1870s)	Moderate
Forcing foreign occupier to withdraw from region	Cyprus (1950s), Palestine (1940s), Aden (1960s)	Moderate
Provoking a crackdown and resulting backlash	Germany (1970s), Italy (1970s)	Poor
Provoking foreign diplomatic intervention	Armenia (1890s)	Poor
Catalyzing conventional diplomacy	Middle East (1970s)	Moderate
Ancillary to traditional military operations	Vietnam (1960s), Turkey (1980s)	Moderate
Blocking political solutions	Russia (1917), Palestine (1970s–), Ireland (1990s)	Moderate
Obtaining operating funds and attracting recruits	Russia (about 1905), South America (1990s)	Moderate
Holding territory against conventional military forces	Algeria (1950s), Peru (1970s)	Poor
Labor disputes with private employers	U.S., Spain (early 1900s)	Moderate

Sources: Laqueur 2002, Carr 2006

If terrorism cannot plausibly topple the state, however, it remains possible that it could achieve less spectacular aims. Twentieth-century terrorist groups have followed many different strategies, although usually without success (table 1.1).

The really striking thing about these diverse strategies is that none of them requires violence on anything like the scale normally reserved to state actors. Indeed, for many purposes—for example, publicizing a cause or garnering international sympathy—mass violence is counterproductive. By the late 1980s, scholars overwhelmingly agreed that terrorists had no real interest in causing large-scale casualties. This comforting assessment was also reasonable. As early as 1973, at least one group of Palestinian terrorists understood that it might be possible to fly a hijacked Boeing 747 jetliner into cities—and even mounted an abortive plot to implement it

(Tinnin 1977). Remarkably, the attempt was never repeated. Instead of encouraging their followers to try again, terrorist leaders stepped back from the abyss.

1.2 Al Qaeda and the New Terrorism

Clearly, Al Qaeda is different. The question is how. Here, it is probably better to start by saying what is *not* new. To begin with, the change is not a matter of rhetoric, even including Al Qaeda's celebrated 1997 "declaration of war" against the United States. Terrorist groups have always invoked the symbolism of "war" and "combat." Nor is it about capability. Technically, at least, the IRA was almost certainly better organized to bomb trains and motorways and set off 2,000-pound truck bombs (Coogan 2000). Nor, finally, is it even about WMD. In the popular imagination, at least, terrorists have sought WMD for years. At the wilder fringes, it is almost impossible to say where journalistic claims that, say, Aum Shinrikyo tested a nuclear weapon in the Australian outback (Pinkney 2006) or the Baader-Meinhof group tried to steal a U.S. nuclear warhead (Harclerode 2000) end and *Goldfinger* begins.

And yet, Al Qaeda *is* different. The IRA may have been able to kill people, but it was signally reluctant to do so and in some cases even apologized afterward (Coogan 2000). Al Qaeda's demonstrated record of mass violence is qualitatively different. Given recent history, we have to take its stated desire to kill tens and even hundreds of thousands with atomic (9/11 Commission 2004) and germ weapons (Leitenberg 2005) seriously.¹ What has changed?

1.2.1 Limited Wars

Perhaps nothing. Some accounts argue that Al Qaeda mounted the September 11 attacks because it wanted to draw the United States into an Afghan War like the one that it claims destroyed the USSR. In this telling, Al Qaeda only mounted the September 11 attacks because the United States had—against all expectation—ignored its earlier provocations (9/11 Commission 2004). Despite unprecedented casualties, the logic for such an attack is not much different from traditional terrorist strategies of using attacks to force nation-state opponents into overreaction up to and including wars. Two wars later, there can be little doubt that the provocation did indeed draw a U.S. military response. In this sense, Al Qaeda's September 11 strategy was rational and traditional.

The jury is, of course, still out on whether it will achieve the broader strategic goal of weakening U.S. influence in the Middle East. That will ultimately depend on the American public's willingness to prosecute two wars where national survival is not at stake. History suggests great powers may be deflected by even moderate

numbers (tens of thousands) of casualties. During the Boer War, the British Empire suffered 21,000 soldiers killed. This figure—roughly 0.5 percent of the population at the time—was sufficient to bring about a negotiated peace. The lessons of Vietnam (58,000 killed, 0.03 percent of the U.S. population) are similar. Recent experience in Iraq suggests that even smaller numbers (4,000 killed as this book goes to press, 0.004 percent of the U.S. population) may be sufficient in some circumstances. Significantly, Al Qaeda does not really need WMD to inflict such casualties. Indeed, one of the main virtues of a terrorism-as-provocation strategy from Al Qaeda's standpoint is that most of the killing (and dying) will be done by others. Nevertheless, Al Qaeda could reasonably conclude that possession and/or use of WMD on U.S. soil could help it win a limited war.

There are, however, at least two problems with this scenario. The first involves a kind of Catch-22. To attain its goals, it is not enough for Al Qaeda to cause casualties. It must also be able to *stop* causing casualties if and when its demands are met. Such discipline might not be possible for an organization as decentralized and ill-defined as Al Qaeda. Historically, of course, perfect discipline has not been necessary. Instead, it has usually been enough for terrorists to show that they could significantly reduce the violence even though some splinter groups remained.² If Al Qaeda limited WMD knowledge to a tight inner circle, Western governments could decide that the prospect of conventionally armed splinter groups did not matter. In this case, WMD would make Al Qaeda a *more* plausible negotiating partner than traditional groups like the IRA. The situation would be very different, however, if WMD knowledge was known to be widely distributed. In that case, the leadership's willingness to negotiate would mean very little and hostilities would continue.³

The second reason Al Qaeda might not be able to exploit WMD in a limited war is more fundamental. At least publicly, there is very little indication that Al Qaeda's goals are limited to Iraq and Afghanistan. To the contrary, it claims to want a "caliphate" that stretches from Afghanistan to North Africa. Of course, this could be rhetoric and prolonged warfare might in any case change Al Qaeda's mind. To the extent that the position is serious, however, U.S. leaders would almost certainly make the judgment—just as they did with Nazi Germany⁴—that something like national survival was at stake. In this case, the concept of a "limited war" would become irrelevant and Al Qaeda would need to inflict enormously more casualties to achieve its goals. In this environment a WMD capability would become not just useful but essential.

1.2.2 Total War

In the weeks following September 11, there were frequent suggestions that Al Qaeda might be able to mount follow-up attacks every few months. Eight years later, this

Table 1.2
Nation-state casualties (1789–1945)

Conflict	Nation	Deaths (including civilians)
Napoleonic Wars (1789–1815)	France	1.4 million—5% of total population
American Civil War (1861–1865)	Union	360,000—1.4%
	Confederacy	200,000—2.5%
World War I (1914–1918)	France	1.4 million—3.6%
	British Empire	0.8 million—1.9%
	Germany (including civilians)	1.7 million—3.1%
	Austria	1.5 million—2.9%
World War II (1939–1945)	United States	405,000—0.4%
	United Kingdom	300,000—0.6%
	USSR	25+ million—15%
	Germany	4.5 million—6%
	Japan	2 million—2.7%

Sources: Merridale 2000; White 2005, 2006; Keegan 1998

fear was clearly unreasonable. One can still imagine conventional attacks killing thousands of people but not tens of thousands. We have seen that such casualties are only marginally useful in the context of limited wars. They seem wholly inadequate for larger projects, including Al Qaeda's stated goal of reorganizing the Middle East.

The question remains how many casualties Al Qaeda would have to inflict to fill this gap. If history teaches anything in this regard, it is that modern nation states are astonishingly resilient. A casual look at modern history (table 1.2) suggests that nation-states can routinely absorb casualties amounting to 2 or 3 percent of their total population and in most cases continue fighting. Indeed, the fact that most wars end not with political collapse but with physical occupation of the losing state suggests that even higher rates are possible.⁵ Simple casualty figures do not, of course, tell the whole story—the extraordinary losses suffered by the USSR in World War II reflect many intangible factors too, not least fear of extermination—but these figures do provide a useful benchmark. In American terms this implies that a population bent on total war could continue to function up to perhaps ten million casualties.⁶ While this number is much lower than Cold War estimates, it is nearly four orders of magnitude higher than September 11. If Al Qaeda means to prosecute and win a war, WMD is the only option.

Indeed, Al Qaeda cannot survive in its present form without it. In the long run—admittedly decades⁷—terrorist groups need to show results. Otherwise, demonstrated futility will eventually choke off recruits. Al Qaeda cannot afford a stalemate. Even if successful, additional September 11 attacks are not enough to change the game. Only WMD can do that.

1.3 Irrationality

To this point, I have discussed terrorism as if it were a rational means to a rational end. However well this works as an approximation, it is surely not the whole truth. From the beginning, practically all terrorist groups have shared strikingly generic features:

- Terrorists view violence as a symbolic statement rather than as a rational instrument for achieving specific goals.
- Terrorists are almost never recruited from people over thirty and are usually much younger.
- Terrorists attract disproportionate numbers of criminals and the mentally ill (Laqueur 1999, 2004).⁸
- Terrorists hold unusual, extreme, and millenarian beliefs.
- Terrorist groups, like cults, enforce beliefs through incessant indoctrination.
- Terrorists' internal politics are fractious, bitter, and frequently bloody.
- Terrorism—like suicide—follows a “Werther syndrome”⁹ in which initial, spectacular acts generate waves of imitators.

It is not hard to see signs of madness in this evidence. At the very least, such regularities suggest that terrorism's psychological roots are important. If so, it is not hard to take the next step by asking whether Al Qaeda's interest in WMD is based on something more than rational calculation. Certainly, technological gimmicks have long fired terrorist imaginations. The prototypical example was, of course, dynamite—a reaction perhaps best exemplified by a radical Brooklyn newspaper's decision to call itself *The Ireland's Liberator and Dynamite Monthly* (Laqueur 2002). But it did not end there. Nineteenth-century terrorists also placed orders for submarines well before the U.S. Navy did (Coogan 2000), dreamed of attacking the Houses of Parliament with osmium gas, debated the merits of James Bond-style poisoned stilettos and, in 1906, talked of inventing airplanes to carry out attacks (Laqueur 2002). Even including dynamite, none of these technologies ever came close to justifying terrorists' hopes.

It is not hard to see how the pursuit and very possibly the use of WMD could possess a similar glamour in the twenty-first century—and could even become an

end in itself. Indeed, something like this seems to have happened to Aum Shinrikyo, the Japanese extremist sect that tried to acquire anthrax and chemical weapons less for political reasons than because it thought that WMD attacks would usher in the millennium (Tucker 2000a). The nexus between madness and WMD may be hard to quantify, but it clearly exists.

1.4 Conclusion

Over the past decade, it has become common to predict that biological, chemical, and radiological attacks will eventually occur on U.S. soil. While this seems a safe bet, scale also matters. On the one hand, policy interventions can do little to prevent trivial attacks and there is not much point in thinking about them. On the other hand, we have argued that WMD is unlikely to make a qualitative geopolitical difference unless it causes casualties that are at least an order of magnitude larger than September 11.¹⁰ Succeeding chapters will almost always adopt this definition of WMD.

Readers will have to judge for themselves whether and to what extent WMD terrorism is feasible and, if so, where it should rank on America's list of priorities. WMD terrorism may have low probability, but that does not relieve of us of the obligation to think about the threat and take sensible measures to meet it.

Notes

1. The 9/11 Commission reports that Bin Laden lost \$1.5 million in an attempt to purchase weapons-grade uranium from the Sudan. Bin Ladin reportedly talked of wanting a "Hiroshima" with at least 10,000 casualties. Many within the CIA similarly point to a Khartoum soil sample as evidence that Al Qaeda tried to make nerve gas (9/11 Commission 2005).
2. The point is well illustrated by the Belfast conflict, in which the United Kingdom repeatedly demanded—and received—temporary "cease-fires" from the IRA (Coogan 2000). Clearly, the IRA's ability to mount attacks was not enough. It also had to show that it could stop all, or at least most, of the violence if it wanted to. For its part, the British government clearly understood that no IRA cease-fire would ever be perfect and that a negotiated solution was bound to produce splinter groups. Negotiations might still be worthwhile, however, if IRA leaders spoke for enough members to significantly reduce the level of violence.
3. During the Cold War, NATO buttressed deterrence by deliberately placing physical control of nuclear weapons in the hands of low-level commanders. Its goal was to persuade the Soviets that Western governments could not prevent a conventional war from turning nuclear. This made the otherwise implausible threat that NATO countries would use atomic weapons on their own soil credible (Bracken 1983).
4. German policy between the fall of France and the invasion of Russia clearly assumed that the world would not be neatly partitioned into two hemispheres and that further conflict with

the United States was unavoidable (Goda 1998). American elites were therefore justified in thinking that national survival was at stake. Total war also required that the American people to understand and accept the argument. President Franklin D. Roosevelt made the case on December 12, 1940, famously arguing that “if Great Britain goes down, the Axis powers will control the continents of Europe, Asia, Africa, Australasia and the high seas—and they will be in a position to bring enormous military and naval resources against this hemisphere. It is no exaggeration to say that all of us in the Americas would be living at the point of a gun” (Kennedy 1999).

5. Of the thirteen states listed in table 1.2, only three (World War I-era Germany, Austria, and Russia) suffered a political collapse. World War II-era Japan surrendered before being occupied. The French Army suffered widespread mutinies in 1917 but subsequently recovered.

6. Estimates by politicians are instructive. When three nights of RAF bombing killed 60,000 to 100,000 Hamburg residents, Hitler reportedly speculated that further, similar attacks might force Germany out of the war (USSBS 1945). U.S. leaders in the final year of the war similarly seem to have thought that the public would accept an additional 100,000 to 300,000 battle deaths (Frank 1999).

7. Once started, terrorism is notoriously long-lived. Remnants of 1970s-era Marxist groups like Germany’s Red Army Faction and Italy’s Red Brigades continued to mount sporadic attacks well into the 1990s. Even if Al Qaeda is destroyed its remnants and imitators will continue to mount attacks for years.

8. Easily the most obvious example involves the Socialists’ Patients Collective, which seized Germany’s Stockholm Embassy in 1975. The terrorists had previously been treated by a Heidelberg psychiatrist who believed that violence could cure mental illness.

9. The term *Werther syndrome* refers to the wave of suicides that followed the publication of Goethe’s novel *The Sorrows of Young Werther* in 1774 (Phillips 1974).

10. Chapter 16 does, however, examine the common argument that even a small-scale chemical, biological, or radiological attack would inflict a debilitating psychological impact.