TERRORISM AND WEAPONS OF MASS DESTRUCTION:
AN ANALYSIS OF TRENDS AND MOTIVATIONS

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PREFACE

This RAND Paper, re-issued in October 1999, is a revised version of the previous RAND Paper published in May 1999. The revisions reflect the continued development and refinement of the author’s views on the subject of terrorism and WMD. It also represents an expansion and updating of the analysis presented in the author’s “The Confluence of International and Domestic Trends in Terrorism and the Threat to Civil Aviation,” Terrorism and Political Violence, Vol. 9, No. 2 (Summer 1997); “Terrorism and WMD: Preliminary Hypotheses,” Non-Proliferation Review, Vol. 4, No. 3 (Spring-Summer 1997); and “Responding to Terrorism Across the Technological Spectrum,” Terrorism and Political Violence, Vol. 6, No. 3 (Autumn 1994).

The research reported here was conducted between January 1997 and September 1998. An initial draft of this Paper was completed in November 1998 with subsequent amendments as noted above. The research upon which this Paper is based was made possible by a grant from the Airey Neave Trust (London). The author wishes also to acknowledge the additional support provided by the W. Alton Jones Foundation (Charlottesville, VA) for the maintenance of the terrorist databases at the Centre for the Study of Terrorism and Political Violence at St Andrews University, Scotland, which also facilitated this research. The opinions expressed herein are solely the author’s and not those of either the Airey Neave Trust, W. Alton Jones Foundation, of RAND or any of the sponsors of RAND research.
I. INTRODUCTION

On 20 March 1995 the first acknowledged terrorist attack employing a chemical warfare agent occurred.\textsuperscript{1} At approximately 8:00am, in the midst of the Monday morning rush hour, members of an apocalyptic Japanese religious sect placed 11 packages containing sarin nerve gas on five Tokyo subway lines.\textsuperscript{2} Almost immediately passengers were affected by the noxious fumes. Some were quickly overcome, whilst others were afflicted with nose-bleeds, oral hemorrhaging, uncontrollable coughing fits or convulsions. A dozen persons would die and more than 5,000 others would be seriously affected. The casualty toll might have been far greater had not favorable weather conditions coupled with hastened—and therefore perhaps botched—preparations fortuitously combined to reduce the sarin's potency.

More than three years later, the attack's implications are still as fiercely debated as they are incompletely understood. Was the incident a harbinger of future terrorist actions or a dramatic aberration? Had a profound taboo in fact been broken by the Aum Shinrikyo movement's use of chemical weaponry or were the circumstances, capabilities and resources at the disposal of this particularly idiosyncratic religious group so unique as to defy duplication or emulation by more common and stereotypical terrorist organizations? Given the intense fear and alarm generated world-wide by the attack, and the attention that has since

\textsuperscript{1}As will be discussed later in this chapter, Aum was not, in fact, the first non-state terrorist or insurgent organization to stage a chemical warfare attack. The Japanese cult, however, was the first non-state entity to employ such a weapon against a civilian population. See Section III of this report.

\textsuperscript{2}The Aum sect's goal in staging the nerve gas attack was (among other aims) to lay the foundation for a revolt against the Japanese government that would result in the creation of a new regime dedicated to the service of the sect's founder and leader, Shoko Asahara. For the most complete account of the Aum sect's aims, motivations, and capabilities see David E. Kaplan and Andrew Marshall, The Cult at the End of the World: The Incredible Story of Aum (London: Hutchinson, 1996). See also, D.W. Brackett, Holy Terror: Armageddon in Tokyo (New York & Tokyo: Weatherhill, 1996).
been focused on potential terrorist employment of weapons of mass
destruction (WMD)—e.g., chemical, biological, nuclear or radiological
devices—it is remarkable how contentious the debate over future
terrorist use of such weapons remains, and how deeply divided terrorism
experts and other observers find themselves over this critical issue.4

The difficulties in assessing both threats and potential threats in
this particular area of terrorism are compounded by the relative paucity
of academic analyses that historically have been devoted to the WMD
question. While the literature on terrorism in all its manifestations
has grown exponentially over the past quarter century, there remains a
demonstrable absence of serious, non-alarmist or non-sensationalist
studies considering the WMD dimension. Moreover, the majority of the
handful of publications that had authoritatively addressed this issue
are themselves now seriously dated, having been conceived and written in
some instances nearly two decades ago when very different situations,
circumstances and international dynamics existed.5 During the cold war,
for example, almost all research on potential uses of WMD concentrated
mostly on the threat of nuclear confrontation involving the two
superpowers and their allies. Potential terrorist use of nuclear
weapons or crude radiological devices was therefore either addressed
within the rigid cold war/superpowers paradigm or else dismissed given

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3Radiological terrorism involves contamination with readily
available radioactive materials that are used in medicine and commerce,
for instance, as compared with nuclear terrorism which implies an
explosion caused by the chain reaction created by fissionable materials.

4See, for example, the arguments presented in Walter Laqueur,
"Postmodern Terrorism," Foreign Affairs, vol. 75, no. 5 (September-
October 1996), pp. 24-36; and, Ehud Sprinzak, "The Great Superterrorism
Scare," Foreign Policy, no. 112 (Fall 1998), pp. 110-125.

5See, for example, Louis Rene Beres, Terrorism and Global Security:
The Nuclear Threat (Boulder, CO: Westview Press, 1979); Brian Jenkins,
Will Terrorists Go Nuclear? California Seminar on Arms Control and
Foreign Policy, paper no. 64 (Los Angeles: Crescent Publications,
1975)—also published under the same title as P-5541 (November 1975) in
the RAND Corporation Paper series; Robert H. Kupperman and Darrell M.
Trent, Terrorism: Threat, Reality, Response (Stanford, CA: The Hoover
Institution Press, 1979); Paul Leventhal and Yonah Alexander (eds.),
Nuclear Terrorism: Defining the Threat (Washington, D.C.: Pergamon-
Brassey's, 1986); Augustus R. Norton and Martin H. Greenberg (eds.),
the prevailing patterns of sub-state violence and the aims and objectives of violent non-state groups active at the time. Within this context, scant attention was paid to the chemical and biological forms of WMD.\textsuperscript{6}

As a result of the 1995 Tokyo nerve gas attack, however, a body of new work is emerging on terrorism and WMD.\textsuperscript{7} Yet, for all the attention now being focused on this subject, many of these more recent studies are decidedly less clear on terrorist motivation and mindset than they are about the requisite technical capabilities needed to implement a WMD attack or the myriad bureaucratic fixes and policy responses inherent to countering the threat. Hence, while there is now considerable understanding and agreement on the technical requirements and attendant capabilities that would be needed by terrorists to employ WMD,\textsuperscript{8} a

\begin{itemize}

  \item \textsuperscript{8}See the analyses by three Swedish scientists and experts respectively in nuclear, chemical, and biological weapons: Gunnar Arbman, "A Swedish View on Nuclear Terrorism," p. 57; Ake Sellstrom, "A
consensus concerning the factors that might credibly motivate terrorists to engage in such actions has proven more elusive.

This paper, therefore, seeks to shed further light on the considerations that would likely influence terrorist use of WMD. It focuses specifically on the constellation of motives, opportunities and capabilities that might impel terrorists to employ such non-conventional weapons and seeks to address three main questions:

- What are the current trends in terrorism and what do they suggest or indicate with regard to likely terrorist use of WMD?
- What is the historical record based on past instances of terrorist use or attempted acquisition of WMD and what do these incidents suggest for the future in terms of capabilities and modus operandi? and
- What types of terrorist groups would be most likely to develop and use WMD?

The paper is organized into four sections. Section two considers terrorism and the conventional wisdom on potential terrorist use of WMD. Section three discusses terrorism’s changing characteristics and how these changes might affect terrorist attraction to WMD. Section four analyses some of the implications of these changes on potential, future terrorist use of WMD. As this paper’s focus is on terrorist motivations and likely intentions, it does not offer any specific policy recommendations or conclusions regarding appropriate governmental policies and responses, except in passing. These issues, which are

II. THE CONVENTIONAL WISDOM ON BOTH TERRORISM AND TERRORISM AND WMD

Until the Tokyo nerve gas attacks, most thinking on terrorism in general and terrorism and WMD in particular continued to be filtered through the cold war era prism cited in the previous section. This meant that many of our most basic preconceptions about terrorists and terrorism—and, more critically, many governmental policies—had remained unchanged since terrorism's emergence as a global security problem more than a quarter century ago. Accordingly, they had thus originated and taken hold at a time of very different circumstances and dynamics: when radical left-wing terrorist groups and some militant ethno-nationalist organizations were widely regarded as posing the most serious threats to Western security.  

What modifications to this thinking or "fine-tuning" to government policies that were subsequently undertaken are possibly no less dated, having mostly been implemented more than a decade and a half ago in response to the series of suicide bombings against American and other Western targets in the Middle East that underscored the rising threat of state-sponsored terrorism. Indeed, in no area perhaps is the irrelevance of much of this thinking to contemporary developments and trends in terrorism clearer—and more of a serious lacuna—than with regard to the WMD issue.

THE TRADITIONAL TERRORIST ARCHETYPE

In the past, terrorism was practiced by a collection of individuals belonging to an identifiable organization with a clear command and control apparatus who had a defined set of political, social or economic objectives. Radical leftist (i.e., Marxist-Leninist/Maoist/Stalinist movements) organizations such as the Japanese Red Army, the Red Army Faction in Germany, the Red Brigades in Italy as well as ethno-nationalist terrorist movements like the PLO, Palestinian splinter

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Some observers argued that these groups were in fact part of a world-wide communist plot against the West orchestrated by Moscow and implemented by its client states. See especially Claire Sterling, The Terror Network: The Secret War of International Terrorism (New York: Holt, Rinehart and Winston, 1981).
groups like the Abu Nidal Organization, the IRA, and the Basque separatist group, ETA, reflected this stereotype of the traditional terrorist group. They generally issued communiqués taking credit for—and explaining in great detail—their actions and however disagreeable or distasteful their aims and motivations may have been, their ideology and intentions were at least comprehensible—albeit politically radical and personally fanatical.

Most significantly, however, these more familiar terrorist groups engaged in highly selective and mostly discriminate acts of violence. They chose for bombing various symbolic targets representing the source of their animus (i.e., embassies, banks, national airline carriers, etc.) or kidnapped and assassinated specific persons whom they blamed for economic exploitation or political repression in order to attract attention to themselves and their causes. In this respect, their violence was deliberately tailored in such a manner as to appeal to their actual or perceived constituents and thus was kept within the bounds of what the terrorists' believed their constituency deemed "acceptable." Terrorists, therefore, were seen as being careful not to undertake actions that might alienate their supporters and sympathizers. They appeared to be cognizant of the likelihood that acts of mass destruction or bloodshed might result not only in public revulsion and alienation but, equally as important, that it might trigger severe governmental reprisals or countermeasures as well. In sum, mass, indiscriminate murder—such as that involving WMD—consequently would alienate the very audience that the traditional type of terrorists sought to mobilize or influence. Further, it also risked creating a crisis that governments could seize upon to justify the severest repressive measures imaginable in order to eliminate completely any organization that dared to employ such heinous weapons.

For this reason, the violence used by left-wing terrorists, for example, was always narrowly proscribed. Their self-styled crusade for social justice therefore was often typically directed against governmental or commercial institutions or persons whom they believed represented capitalist exploitation and repression. Specific individuals—wealthy industrialists such as Hanns Martin Schleyer, who
was kidnapped and murdered by the German Red Army Faction (RAF) in 1977, or distinguished parliamentarians like Aldo Moro, who the Italian Red Brigades similarly abducted and executed the following year, alongside lower-ranking government officials, factory managers or ordinary civil servants—were most often targeted. When the left did resort to bombing, the violence was conceived in equally "symbolic" terms. In this sense, although the damage and destruction that often resulted were certainly not symbolic, the act itself was meant to dramatize or call attention to the terrorists' grievances or political cause.

This approach was not entirely dissimilar from that taken by the more prominent ethno-nationalist and separatist groups of that era: the PLO, IRA, and ETA. Although acts of terrorism committed by this category of organization were frequently more destructive and caused more casualties than those of their left-wing counterparts, the same self-imposed constraints and balancing act of finding a level of violence acceptable to their actual or perceived constituents was evident. In a broader sense, ethno-nationalist and separatist terrorism was also designed to appeal to international as well as internal opinion in support of the terrorists' irredentist or nationalist aims. Hence, to continue to receive the support of their constituency, generate sympathy among the international community and, indeed forestall massive governmental countermeasures as well, these terrorists also strove to regulate and calibrate their violence. The vast majority of their targets, accordingly, were often individuals: confined to low-ranking government officials, ordinary soldiers or policemen, other so-called "agents of the state," and members of rival communities or ethnic groups.

Many of these operations—especially the terrorist "spectaculars," those dramatic, attention-riveting acts that so effectively capture the attention of both the media and public alike—were also claimed. Not only did these terrorists generally take credit for their acts, but they also issued often painfully turgid and long communiqués, explaining in great detail the reasons or rationale behind a particular operation. In this way, these terrorists sought both to justify the violence they wrought and also to obtain the "oxygen of publicity" that many believed
they thrived on.\textsuperscript{11} As a result, however disagreeable or repugnant the terrorists and their tactics may have been, we at least knew who they were and what they wanted.

In addition, however radical or revolutionary these groups were politically, the vast majority were also equally conservative in their operations. These types of terrorists were said to be demonstrably more "imitative than innovative": having a very limited tactical repertoire that was mostly directed against a similarly narrow target set.\textsuperscript{12} They were judged as hesitant to take advantage of new situations, let alone to create new opportunities. Accordingly, what little innovation that was observed was more in the terrorists' choice of targets\textsuperscript{13} or in the methods used to conceal and detonate explosive devices than in any particularly innovative tactics, much less in their use of non-conventional weapons—particularly chemical, biological, that radiological or nuclear.

Although various terrorist groups—Germany's RAF,\textsuperscript{14} Italy's Red Brigades, and some Palestinian organizations—admittedly had occasionally toyed with the idea of using such indiscriminately lethal weapons, none had ever crossed the critical psychological threshold of


\textsuperscript{12}Brian Michael Jenkins, International Terrorism: The Other World War (Santa Monica, CA: The RAND Corporation, R-3302-AF, November 1985), p. 12.

\textsuperscript{13}For example, the 1985 hijacking of the Italian cruise ship, the Achille Lauro, by Palestinian terrorists as opposed to the more typical terrorist hijacking of passenger aircraft.

\textsuperscript{14}It was reported in 1979 that German Red Army Faction terrorists were being trained at Palestinian camps in Lebanon in the use of bacteriological weapons. Additional information of the group's reputed interests in this respect came to light as a result of a police raid of an RAF safe-house in Paris that uncovered a miniature laboratory containing a culture of Clostridium botulinum, used to create a botulinum toxin, alongside earlier threats by the group to poison water supplies in 20 Germany towns if three radical lawyers were not permitted to defend an imprisoned RAF member. Source: The RAND-St Andrews Chronology of International Terrorist Incidents. See also, Carus, Bioterrorism and Biocrimes, pp. 147-148 & 164-165; Purver, Chemical and Biological Terrorism: The Threat According to the Open Literature; and, Simon, Terrorists and the Potential Use of Biological Weapons, p. 8.
actually implementing their heinous day-dreams or executing their half-baked plots. For example, it has been reported these same groups—the RAF, Italy’s Red Brigades and some Palestinian organizations—reputedly had at one time or another “recruited microbiologists, purchased bacteriological experimentation equipment and dabbled in sending toxins such as anthrax to potential victims.”¹⁵ What is known is that in 1979 Palestinian terrorists were suspected of having poisoned some Jaffa oranges exported to Europe in hopes of sabotaging Israel’s economy and nearly a decade later minute traces of cyanide were discovered in Chilean grapes shipped to the U.S. following threats made by a left-wing Chilean group opposed to the Pinochet dictatorship. But, together with a few other inconsequential incidents,¹⁶ this handful of inchoate or poorly conceived attempts was largely the extent of actual terrorist use of such “non-conventional” weapons and tactics.¹⁷

Instead, most terrorists seemed almost content with the limited killing potential of their handguns and machine-guns and the slightly higher rates that their bombs achieved. Like most people, terrorists themselves appeared to fear powerful contaminants and toxins they knew little about and were uncertain how to fabricate, and safely handle, much less effectively deploy and disperse. Indeed, of the nearly 12,000 incidents recorded in The RAND-St Andrews University Chronology of International Terrorist Incidents since 1968, perhaps only 60 or so have

¹⁶For example, the letters sent to Western embassies by Tamil guerrillas in 1986 claiming to have poisoned Sri Lankan tea with potassium cyanide. Source: The RAND-St Andrews Chronology of International Terrorist Incidents. See also, Carus, Bioterrorism and Biocrimes, p. 146.
¹⁷Assessment based on the unpublished RAND-St Andrews Database of Terrorist Use of Weapons of Mass Destruction (Chemical, Biological and Nuclear). See such authoritative, published compilations as Carus, Bioterrorism and Biocrimes, passim and Purver, Chemical and Biological Terrorism: The Threat According to the Open Literature, passim, for a detailed accounting of the historical use, attempted use and alleged contemplated use of such weapons.
evidenced any indication\textsuperscript{18} of terrorists seriously plotting such attacks, attempting to use chemical or biological agents or intending to steal, or otherwise fabricate their own nuclear devices.

\textbf{THE CONVENTIONAL WISDOM ON TERRORISM AND WMD}

Perhaps the main reason that terrorist use of WMD was discounted was because terrorists, it was repeatedly argued, were fundamentally rational.\textsuperscript{19} There were few realistic demands that terrorists could make by threatening the use of such indiscriminate weapons. There were also few objectives that terrorists sought which could not be obtained by less extreme measures than the detonation of a nuclear device or dispersal of radioactive materials\textsuperscript{20} or by attacks employing either biological or chemical warfare agents. In perhaps the most important book written on the subject in the 1970s, Walter Laqueur unambiguously concluded that, "It can be taken for granted that most of the terrorist groups existing at present will not use this option, either as a matter of political principle or because it would defeat their purpose."\textsuperscript{21}

The terrorists' perceived obsession with controlling events was also regarded as an important constraint.\textsuperscript{22} "Terrorists, like war planners," one unidentified expert opined at a mid-1980s symposium on the subject of nuclear terrorism, "believe they can control what they start . . . and CB [chemical and biological agents] seems too uncontrollable." Hence, this line of argument went, terrorists would abjure from using weapons that could not be indiscriminately directed

\textsuperscript{18}Admittedly, these are only those incidents or plots that we both definitely know about and that have also been reported in open, published sources.
\textsuperscript{19}See, for example, the studies conducted by The RAND Corporation during the 1970s for Sandia National Laboratories and in particular, Gail Bass, Brian Jenkins, et. al, Motivations and Possible Actions of Potential Criminal Adversaries of U.S. Nuclear Programs (Santa Monica, CA: The RAND Corporation, R-2554-SL, February 1980).
\textsuperscript{20}See, for example, the discussion in Peter deLeon, Bruce Hoffman, et. al, The Threat of Nuclear Terrorism: A Reexamination (Santa Monica, CA: The RAND Corporation, N-2706, January 1988), pp. 4-6.
\textsuperscript{22}Simon, Terrorists and the Potential Use of Biological Weapons, p. 12.
against their enemies only, and that therefore could also harm their
ethnic brethren, co-religionists, or that often declared but
indistinctly amorphous constituency, the so-called "people." Of equal
significance was that, whereas terrorists had mastered all the
components of operations using conventional weapons, they were thought
to be wary of venturing into such terra incognita as WMD. Hence, like
most ordinary people, terrorists also harbored profound fears about
dangerous substances which they knew little about and, if handled
improperly, would affect them as adversely as it would their intended
target(s).

Even when experts in the 1970s thought about possible terrorist use
of WMD the prevailing consensus was that terrorists would axiomaticall
prefer nuclear or radiological weapons over chemical or biological
ones.\textsuperscript{23} As perhaps that era's leading terrorism analyst, Brian Jenkins,
explained in a paper presented at the same conference noted above,

Terrorists imitate governments, and nuclear weapons are in the
 arsenals of the world's major powers. That makes them
"legitimate." Chemical and biological weapons also may be
found in the arsenals of many nations, but their use has been
widely condemned by public opinion and proscribed by treaty,
although in recent years the constraints against use seem to
be eroding.\textsuperscript{24}

But most importantly, there was a general acceptance of the
observation made famous by Jenkins that "Terrorists want a lot of people
watching and a lot of people listening and not a lot of people dead."\textsuperscript{25}
This maxim was applied directly to potential terrorist use of WMD and in
turn was often used to explain the paucity of actual known plots, much
less verifiable, incidents. Writing in 1975 with reference to potential
terrorist use of radiological or nuclear weapons, Jenkins argued that

\textsuperscript{23}Robert L. Beckman, "Rapporteur's Summary," in Alexander and
Leventhal, Nuclear Terrorism: Defining The Threat, p. 13.
\textsuperscript{24}Brian M. Jenkins, "Is Nuclear Terrorism Plausible?" in Ibid., p.
31.
\textsuperscript{25}Brian Michael Jenkins, "International Terrorism: A New Mode of
Conflict" in David Carlton and Carlo Schaar (eds.), International
Scenarios involving the deliberate dispersal of toxic radioactive material . . . do not appear to fit the pattern of any terrorist actions carried out thus far . . . . Terrorist actions have tended to be aimed at producing immediate dramatic effects, a handful of violent deaths—not lingering illness, and certainly not a population of ill, vengeance-seeking victims . . . . If terrorists were to employ radioactive contaminants, they could not halt the continuing effects of their act, not even long after they may have achieved their ultimate political objectives. It has not been the style of terrorists to kill hundreds or thousands. To make hundreds or thousands of persons terminally ill would be even more out of character.26

This was also the conclusion reached by a contemporary of Jenkins', the noted authority on sub-national conflict, J. Bowyer Bell. He too had dismissed the possibility that terrorists might target a commercial nuclear power plant in hopes of engineering a meltdown or large-scale atmospheric release of radioactive materials on similar grounds of political expediency and logical instrumentality. "[T]here is no evidence," Bell wrote in 1978,

that terrorists have any interest in killing large numbers of people with a meltdown. The new transnational television terrorists want media exposure, not exposure of the masses to radioactive fallout. And finally, the technological capacities of organizations with sufficient military skills to launch an attack . . . are not great. The mix of motive, military and technological skills, resources, and perceived vulnerability simply does not exist.27

Despite the events of the mid-1980s—when a series of high-profile and particularly lethal suicide car and truck-bombings were directed against American diplomatic and military targets in the Middle East (in one instance resulting in the deaths of 241 Marines)—many analysts saw no need to revise these arguments. In 1985, Jenkins, for example, again reiterated that, "simply killing a lot of people has seldom been one terrorist objective . . . . Terrorists operate on the principle of the minimum force necessary. They find it unnecessary to kill many, as long

as killing a few suffices for their purposes." In the revised version of his earlier work, Laqueur similarly emphasized that

Groups such as the German, Italian, French, Turkish or Latin American terrorists are unlikely to use nuclear, chemical or bacteriological weapons, assuming that they have any political sense at all—an assumption that cannot always be taken for granted. They claim to act on behalf of the people, they aspire to popular support, and clearly the use of arms of mass destruction would not add to their popularity.

In sum, the conventional wisdom on terrorism held that terrorists were not interested in killing, but in publicity. Violence was employed less as a means of wrecking death and destruction than as a way to appeal to and attract supporters, focus attention on the terrorists and their causes or to attain a tangible political aim or concession—for example, the release of imprisoned brethren, some measure of political autonomy, independence for an historical homeland or a change of government. Terrorists therefore believed that only if their violence were calculated or regulated would they be able to obtain the popular support or international recognition they craved or attain the political ends they desired. As an IRA terrorist once succinctly put it, "You don't just bloody well kill people for the sake of killing them."

In recent years, however, these long-standing assumptions have increasingly been called into question by terrorist attacks that have either crossed the threshold into the domain of WMD use—such as the sarin nerve gas attack on the Tokyo underground in 1995—or have resulted in large numbers of casualties—like the 1993 bombing of New York City's World Trade Center; the massive explosion at a U.S. government office building in Oklahoma City two years later; and, most recently the bombings of the American embassies in Kenya and Tanzania. As these incidents demonstrate, the more "traditional" and familiar

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types of ideological and ethno-nationalist and separatist organizations who dominated terrorism for the past thirty years—and upon whom analysts like Jenkins, Laqueur and Bell based many of our most fundamental assumptions about terrorists and their behavior—have now been joined by a variety of rather different terrorist "entities" with arguably less comprehensible nationalist or ideological motivations. This new generation of terrorist organizations not only embrace far more amorphous religious and millenarian aims, but are themselves less cohesive organizational entities, with a more diffuse structure and membership.32

In this respect, the emergence of either obscure, idiosyncratic millenarian movements—such as the Japanese Aum Shinrikyo religious sect; or militantly anti-government, Christian white supremacist militias fuelled by a volatile mixture of religious, racial and seditious dicta that have surfaced in the United States;33 alongside the

31For example, the Aum Shinrikyo, the Japanese group responsible for the 1995 sarin nerve gas attack on the Tokyo subway system.
32See, for example, the analysis of the international terrorist campaign allegedly orchestrated by Osama bin Laden in Neil King, Jr., "Moving Target: Fighting Terrorism Is Far More Perilous Than It Used to Be," Wall Street Journal Europe, 25 August 1998. This approach also reflects the "Leaderless Resistance" strategy advocated by the Christian far-right, paramilitary white supremacist movement in the United States today and is perhaps the best example of this trend. "Leaderless Resistance," also called "phantom cell networks," lays down a strategy of violence perpetrated by "autonomous leadership units" (e.g., cells) operating independently of one another that, it is intended, will eventually join together to create a chain-reaction leading to a nationwide, white supremacist revolution. "Leaderless Resistance" is described in the white supremacist adventure novel, Hunter, written by William Pierce (under the pseudonym Andrew MacDonald) and published by National Vanguard Books in Hillsboro, Virginia. Hunter, it should be noted, is the sequel to The Turner Diaries (which Pierce/MacDonald also wrote)—the novel described by the FBI as the "bible" of the American white supremacist movement (Quoted in Bruce Hoffman, Terrorism in the United States and the Potential Threat to Nuclear Facilities (Santa Monica, CA: The RAND Corporation, R-3351-DOE, January 1986), p. 42.
33The white supremacists' expressed raison d'être—racism, anti-Semitism and sedition—is justified and legitimized on theological grounds. It is at once a political and grassroots religious movement. The cement that bonds together this seemingly diverse and disparate collection of citizens militias, tax resisters, anti-federalists, bigots and racists is the white supremacist religious theology espoused by the Christian Identity movement. The basic tenets of the Identity movement
shady, trans-national extremist Islamic movement that has been linked to the World Trade Center bombing, the attacks in 1995 and 1996 on U.S. military targets in Saudi Arabia, the 1997 slaughter of Western tourists in Luxor, and the embassy bombings in East Africa—represent a very different and potentially far more lethal threat than the above-mentioned more familiar, "traditional" terrorist adversaries. Indeed, these developments have already prompted at least some of terrorism's leading analysts to revise their previous thinking on the WMD issue. In his seminal 1996 article, which defined the new era of terrorism in the post-cold war world, Laqueur observes that, "Proliferation of weapons of mass destruction does not mean that most terrorist are likely to use them in the foreseeable future, but some almost certainly will, in spite of all the reasons militating against it."34

include the beliefs that Jesus Christ was not a Jew, but an Aryan; that the Lost Tribes of Israel are not composed of Jews but of blue-eyed Aryans; that Anglo-Saxons and not Jews are the true chosen people; and that the United States is the Promised Land. See Bruce Hoffman, Recent Trends and Future Prospects of Terrorism in the United States (Santa Monica, CA: The RAND Corporation, R-3618, May 1988), pp. 26-27.

34Laqueur, "Postmodern Terrorism," p. 34.
III. TERRORISM'S CHANGING CHARACTERISTICS AND THE IMPLICATIONS FOR TERRORIST USE OF WMD

While some observers point optimistically to the decline in the number of international terrorist incidents during the 1990s as an especially noteworthy and salutary development in the struggle against terrorism, at the same time the percentage of terrorist incidents with fatalities has paradoxically—and alarmingly—increased. According to the RAND Chronology of International Terrorism, a record 484 international terrorist incidents were recorded in 1991, the year of the Gulf War, followed by 343 incidents in 1992, 360 in 1993, 353 in 1994, falling to 278 incidents in 1995 and to only 250 in 1996 (the last calendar year for which complete statistics are available). Indeed, the 1996 total was the lowest annual tally in 23 years.

This overall paucity of activity, however, was not reflected by a concomitant decline in the number of fatalities. On the contrary, 1996 was one of the bloodiest years on record. A total of 510 persons were

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35The RAND Chronology of International Terrorism includes a computerized database of international terrorist incidents that have occurred world-wide from 1968 to the present. The Chronology has been continuously maintained since 1972 (when it was created by Brian Jenkins. The incidents in the chronology are concerned with international terrorism, defined here as incidents in which terrorists go abroad to strike their targets, select victims or targets that have connections with a foreign state (e.g., diplomats, foreign businessmen, offices of foreign corporations), or create international incidents by attacking airline passengers, personnel, and equipment. It excludes violence carried out by terrorists within their own country against their own nationals, and terrorism perpetrated by governments against their own citizens. In this respect, it should therefore be emphasized the data collected in the Chronology comprises only a fraction of the total volume of terrorist violence, which in turn comprises a fraction of the violence of ongoing armed conflicts. Accordingly, the data contained in the Chronology are not necessarily a definitive listing of every international and domestic terrorist incident that has occurred everywhere since 1968. Its value, accordingly, is as a means of identifying terrorist trends and projecting likely future terrorist patterns.

36For the purposes of The RAND Chronology of Terrorism, terrorism is defined by the nature of the act, not by the identity of the perpetrators or the nature of the cause. Terrorism is thus taken to mean violence, or the threat of violence, calculated to create an atmosphere of fear and alarm in the pursuit of political aims.
killed: 223 more than in 1995 and 91 more than in 1994. In fact, the 1996 death toll ranks as the fourth highest recorded in the Chronology since it began monitoring international terrorism in 1968. Significantly, the U.S. Department of State in its own authoritative compendium and analysis, Patterns of Global Terrorism 1996,\textsuperscript{37} cites a similar increase in international terrorism's lethality.\textsuperscript{38} Hence, even though the State Department and the RAND Chronology each have different criteria for defining incidents (that, accordingly, produces different numerical tabulations), both arrive at the same fundamental conclusion: even while terrorists were less active in 1996, they were significantly more lethal.

This development, moreover, conforms to a pattern of international terrorist activity observed throughout the current decade. A study conducted by two American economists involving time series techniques and different data sets to measure whether international terrorism has become more deadly during the 1990s recently concluded that, "Despite a decline in transnational terrorism of nearly fifty incidents per quarter during some of the post-Cold War era, terrorism still presents a significant threat. This conclusion follows because each incident is almost 19 percentage points more likely to result in death or injury as compared with the previous two decades."\textsuperscript{39}

\textsuperscript{37}The principal numerical differences between The RAND Chronology's figures and the State Department's are in total number of international incidents (the State Department's figure is 296), number of fatalities (the State Department cites 311), and number of incidents with fatalities (the State Department notes 45 compared with the 60 that The RAND Chronology of Terrorism identifies.

\textsuperscript{38}Indeed, the second sentence of the first paragraph of the State Department report notes that "the total number of casualties [in 1996] was one of the highest ever recorded . . . ." Office of the Coordinator for Counterterrorism, Patterns of Global Terrorism 1996 (Washington, D.C.: U.S. Department of State Publication 10433, April 1997), p. 1. It should be noted that the 1997 State Department analysis concluded that the "number of casualties remained large but did not approach the high levels recorded during 1996." See idem, Patterns of Global Terrorism 1997 (Washington, D.C.: U.S. Department of State Publication 10535, April 1998), p. 1.

INTERNATIONAL TERRORISM'S INCREASING LETHALITY

International terrorism's overall proclivity towards increasingly lethality, according to the RAND Chronology, is also reflected in the percentage of international terrorist incidents that result in one or more fatalities. For example, only 14% of all incidents in 1991 killed anyone, rising to 17.5% in 1992, 24% in 1993, and 27% in 1994, before reaching a record high of 29% in 1995. During 1996, admittedly, this percentage declined, as only 24% of incidents resulted in deaths. But at the same it should be recalled that even this smaller percentage is higher than the 17% average recorded during the 1970s and the 19% average during the 1980s.

In addition to the percentage increase in incidents with fatalities, terrorism's increased lethality in 1996 was also the result of a handful of so-called terrorist "spectaculars." Thus, although the number of international terrorist incidents that killed eight or more people increased only slightly in 1996 (from eight in 1995 to thirteen), the effect was none the less profound: in that it was this relatively small number of incidents that accounted for the year's dramatically higher body-count.

One reason for terrorism's increased lethality may simply be that at least some terrorists have come to believe that attention is no longer as readily obtained as it once was. To their minds, both the public and media have become increasingly inured or de-sensitized to the continuing spiral of terrorist violence. Accordingly, these terrorists feel themselves pushed to undertake ever more dramatic or destructively lethal deeds today in order to achieve the same effect that a less ambitious or bloody action may have had in the past. For example, when Timothy McVeigh, the convicted bomber of the Alfred P. Murrah Federal Building in Oklahoma City, was asked by his attorney whether he could not have achieved the same effect of drawing attention to his grievances against the U.S. government without killing anyone, he reportedly replied: 'That would not have gotten the point across. We needed a body count to make our point'.\footnote{Quoted in James Brooke, 'Newspaper Says McVeigh Described Role in Bombing', \textit{New York Times}, 1 March 1997.} In this respect, although the April 1995
bombing of the Murrah Building was doubtless planned well in advance. McVeigh may nonetheless have felt driven to surpass in terms of death and destruction the previous month's dramatic and more exotic nerve-gas attack on the Tokyo underground in order to guarantee that his attack would also be assured the requisite media coverage and public attention. This equation of publicity and carnage with attention and success thus has the effect of locking some terrorists into an unrelenting upward spiral of violence in order to retain the media and public's interest.41 Similarly, Ramzi Ahmad Yousef, the convicted mastermind of the 1993 New York World Trade Center bombing, reportedly planned to follow that incident with the simultaneous in-flight bombings of 11 U.S. passenger airliners.42

But among the various reasons offered that may account for terrorism’s increasing lethality,43 the most significant perhaps in terms of future potential use of WMD is the dramatic proliferation of religious terrorism, the increasing "amateurization" of terrorism, and the growing professionalism of terrorists. These three developments arguably encapsulate the confluence of new adversaries, motivations and tactics affecting terrorist patterns today. The remainder of this section will examine the religious terrorism aspect; Section IV analyzes the amateur and professional dimensions of this issue.

RELIGIOUS TERRORISM

The connection between religion and terrorism of course is not new.44 However, while religion and terrorism share a long history, in

41See, for example, David Hearst, "Publicity key element of strategy," The Guardian (London), 31 July 1990; and, David Pallister, "Provos seek to 'play havoc with British nerves and lifestyle,'" The Guardian (London), 31 July 1990.
42James Bone and Alan Road, 'Terror By Degree', The Times Magazine (London), 18 October 1997.
43For example, arguments such as increased state-sponsorship has placed greater resources in the hands of terrorists and has thus appreciably enhanced their capabilities; and that conventional terrorist weaponry is getting smaller, more easy to conceal and also exponentially more powerful.
44As David C. Rapoport points out in his seminal study of what he terms "holy terror," until the nineteenth century, "religion provided the only acceptable justifications for terror" (see David C. Rapoport,
recent decades this variant has largely been overshadowed by ethnonationalist and separatist or ideologically-motivated terrorism. Indeed, none of the 11 identifiable terrorist groups active in 1968 (the year credited with marking the advent of modern, international terrorism) could be classified as religious.\textsuperscript{46} Not until 1980 in fact—as a result of repercussions from the revolution in Iran the year before—do the first “modern” religious terrorist groups appear;\textsuperscript{47} but they amount to only two of the 64 groups active that year. Twelve years later, however, the number of religious terrorist groups has increased nearly six-fold, representing a quarter (11 of 48) of the terrorist organizations who carried out attacks in 1992. By 1994, a third (16) of the 49 identifiable terrorist groups could be classified as religious in character and/or motivation, and in 1995 they accounted for nearly half (26 or 46 percent) of the 56 known terrorist groups active that year. In 1996, however, only 13 (28 percent) of the 46 identifiable terrorist groups had a dominant religious component. Nevertheless, despite this decline in the 1996 figure, religion remained a significant force behind terrorism’s rising lethality. Groups motivated in part or in whole by a salient religious or theological motivation, for example, committed ten of the 13 terrorist “spectaculars” recorded in 1996.\textsuperscript{48}

\textsuperscript{45}Numbers of active, identifiable terrorist groups from 1968 to the present are derived from The RAND-St Andrews University Chronology of International Terrorist Incidents.

\textsuperscript{46}Admittedly, many contemporary terrorist groups—such as the overwhelmingly Catholic Provisional Irish Republic Army; their Protestant counterparts arrayed in various Loyalist paramilitary groups like the Ulster Freedom Fighters, the Ulster Volunteer Force, and the Red Hand Commandos; and the predominantly Muslim Palestine Liberation Organization—all have a strong religious component by virtue of their membership. However, it is the political and not the religious aspect that is the dominant characteristic of these groups, as evidenced by the pre-eminence of their nationalist and/or irredentist aims.

\textsuperscript{47}The Iranian-backed Shi’a groups al-Dawa and the Committee for Safeguarding the Islamic Revolution.

\textsuperscript{48}The Palestinian Islamic Resistance Movement, Hamas, was responsible for three incidents (which killed a total of 56 persons); the Jammu and Kashmir Liberation Front for two (killing 37); a shadowy Saudi Arabian dissident group for two (causing 30 fatalities); the Egyptian al-Gama’a al-Islamiya for one (18 persons died), unspecified Kashmiri rebels also for another incident (where eight persons died);
The implications of terrorism motivated by a religious imperative for higher levels of lethality is further borne out by the time series investigation conducted by the aforementioned two American economists. Indeed, using quantitative methodology they came to the conclusion that the "growth of religious terrorism appears to be behind the increased severity of terrorist attacks since the last quarter of 1991 ...."\footnote{49} This causal relationship between religion and higher lethality may also be seen in the violent record of various Shi'a Islamic groups during the 1980s. Although these organizations committed only eight percent of all recorded international terrorist incidents between 1982 and 1989, they were nonetheless responsible for nearly 30 percent of the total number of deaths during that time period.\footnote{50}

Indeed, some of the most significant—and bloody—terrorist acts of recent years have all had some religious element present. They include:

- the 1993 bombing of New York City's World Trade Center by Islamic radicals who deliberately attempted to topple one of the twin towers onto the other;
- the series of 13 near-simultaneous car and truck bombings that shook Bombay, India in February 1993, killing 400 persons and injuring more than 1,000 others, in reprisal for the destruction of an Islamic shrine in that country;
- the December 1994 hijacking of an Air France passenger jet by Islamic terrorists belonging to the Algerian Armed Islamic Group (GIA) and the attendant foiled plot to blow up themselves, the aircraft and the 283 passengers on board precisely when the plane was over Paris, thus causing the flaming wreckage to plunge into the crowded city below.\footnote{51}

\footnote{50}Between 1982 and 1989 Shi'a terrorist groups committed 247 terrorist incidents but were responsible for 1057 deaths. Source: The RAND-St Andrews University Chronology of International Terrorism.
\footnote{51}The hijackers' plans were foiled, however, after the French authorities learned of their intentions and ordered commandos to storm the aircraft after it had landed for re-fuelling in Marseilles.
the March 1995 sarin nerve gas attack on the Tokyo subway system, perpetrated by an apocalyptic Japanese religious cult (Aum Shinrikyo) that killed a dozen persons and wounded more than 5,000 others and reports that the group also planned to carry out identical attacks in the U.S.;\textsuperscript{52}

- the bombing of an Oklahoma City federal office building in April 1995, where 168 persons perished, by two Christian Patriots seeking to foment a nation-wide race revolution;\textsuperscript{53}

- the wave of bombings unleashed in France by the Algerian Armed Islamic Group (GIA) between July and October 1995, of metro trains, outdoor markets, cafes, schools and popular tourist spots, that killed eight persons and wounded more than 180 others;

- the assassination in November 1995 of Israeli Prime Minister Itzhak Rabin by a religious Jewish extremist and its attendant significance as the purported first step in a campaign of mass murder designed to disrupt the peace process;

- the Hamas suicide bombers who turned the tide of Israel’s national elections with a string of bloody attacks that killed 60 persons between February and March 1996;


\textsuperscript{53}It is a mistake to view either the American militia movement and other contemporary white supremacist organizations (from which McVeigh and his accomplice Terry L. Nichols emerged) as simply militant anti-federalist or extremist tax-resistance movements. The aims and motivations of these groups in fact span a broad spectrum of anti-federalist and seditious beliefs coupled with religious hatred and racial intolerance, masked by a transparent veneer of religious precepts. They are bound together by the ethos of the broader Christian Patriot movement which actively incorporates Christian scripture in support of their violent activities and uses biblical liturgy to justify their paranoid call-to-arms. For a more detailed analysis, see Bruce Hoffman, Inside Terrorism (London: Victor Gollancz and New York: Columbia University Press, 1998), pp. 105-120. Further, it should be noted that McVeigh openly admitted to interviewers his belief in Christian Patriotism and involvement in Patriot activities, thus tacitly admitting his adherence to the theological belief system briefly described above. See Tim Kelsey, "The Oklahoma suspect awaits day of reckoning," The Sunday Times (London), 21 April 1996.
the Egyptian Islamic militants who carried out a brutal machine-gun and hand grenade attack on a group of Western tourists outside their Cairo hotel in April 1996 that killed 18;
the June 1996 truck bombing of a U.S. Air Force barracks in Dhahran, Saudi Arabia, where 19 persons perished, by religious militants opposed to the reigning al-Saud regime;
the unrelenting bloodletting by Islamic extremists in Algeria itself that has claimed the lives of more than an estimated 75,000 persons there since 1992;
the massacre in November 1997 of 58 foreign tourists and four Egyptians by terrorists belonging to the Gamat al-Islamiya (Islamic Group) at the Temple of Queen Hatsheput in Luxor, Egypt; and,
the bombings of the U.S. embassies in Kenya and Tanzania in August 1998 that killed 257 and injured some 5,000 others.

As the above incidents suggest, terrorism motivated in whole or in part by religious imperatives has often led to more intense acts of violence that have produced considerably higher levels of fatalities—at least compared to the relatively more discriminate and less lethal incidents of violence perpetrated by secular terrorist organizations.54

The reasons for the higher levels of lethality found in religious terrorism may be explained by the radically different value systems, mechanisms of legitimization and justification, concepts of morality, and Manichean world view that the religious terrorist embraces compared with his secular counterpart.55 For the religious terrorist, violence

54See Enders and Sandler, "Is Transnational Terrorism Becoming More Threatening? A Time Series Investigation," p. 21 where they argue, "This "shift toward greater religious-based terrorism is traced to the (1979) take-over of the US Embassy in Tehran, from which point terrorism became more casualty prone and dangerous." See also, Mark Juergensmeyer, "Terror Mandated By God," Terrorism and Political Violence, vol. 9, no. 2 (Summer 1997), pp. 16-23.
first and foremost is a sacramental act or divine duty executed in
direct response to some theological demand or imperative. Terrorism
thus assumes a transcendental dimension,56 and its perpetrators are
thereby not affected by the political, moral, or practical constraints
that seem to affect other terrorists. Whereas secular terrorists
generally consider indiscriminate violence immoral and
counterproductive,57 religious terrorists regard such violence not only
as morally justified, but as a necessary expedient for the attainment of
their goals.

Religion therefore serves as a legitimizing force—conveyed by
sacred text or imparted via clerical authorities claiming to speak for
the divine. This explains why clerical sanction is so important to
religious terrorists, and why religious figures are often required to
bless (e.g., approve) terrorist operations before they are executed. For
example, the group of Jewish messianic terrorists who, in 1984 plotted
to blow up The Dome of the Rock in Jerusalem (Islam's third holiest
shrine) in hopes of provoking a cataclysmic, nuclear "holy war" that
would result in the obliteration of all Israel's Arab enemies,58 had
made it clear to their leaders that they could not implement the groups’
battle plan without specific rabbinical blessing.59 Similarly, the
World Trade Center bombers specifically obtained a fatwa, or religious
edict from Sheikh Omar Abdel-Rahman (who is now also imprisoned in the
United States) before planning their attack.60 In the case of the

56See, for example, Rapoport, "Fear and Trembling: Terrorism in
57Jenkins, The Likelihood Of Nuclear Terrorism, pp. 4-5.
58See Thomas L. Friedman, "Jewish Terrorists Freed By Israel," New
York Times, 9 December 1984; Grace Halsell, "Why Bobby Brown of Brooklyn
wants to blow up Al Aqsa," Arabia, August 1984; Martin Merzer, "Justice
for all in Israel?" Miami Herald, 17 May 1985; and, "Jail Term of Jewish
terrorist reduced," Jerusalem Post (International Edition), 12 October
1985. The information pertaining to the terrorists' desire to provoke a
cataclysmic holy war between Moslems and Jews was verified by an
American law enforcement officer involved with the investigation of
Jewish terrorist incidents in the U.S. and knowledgeable of the
Jerusalem incident in conversation with the author.
59See Ehud Sprinzak, The Ascendance of Israel's Radical Right (New
60See Youssef M. Ibrahim, "Muslim Edicts Take on New Force," New
American Christian white supremacists, the leaders of these groups are often themselves clergymen—like the Michigan Militia’s founder and “general,” Pastor Norman Olson, the Idaho-based Aryan Nations’ leader, Reverend Richard Girt Butler and, the Ku Klux Klan’s Pastor Thom Robb—who deliberately cloak themselves with clerical titles in order to endow their organizations with a theological veneer that condones and justifies violence.

Religious and secular terrorists also differ in their constituencies. Whereas secular terrorists attempt to appeal to a constituency variously composed of actual and potential sympathizers, members of the communities they purport to defend, or the aggrieved people they claim to speak for; religious terrorists are at once activists and constituents engaged in what they regard as a total war. They execute their terrorist acts for no audience but themselves. Thus the restraints on violence that are imposed on secular terrorists by the desire to appeal to a tacitly supportive or uncommitted constituency are not relevant to the religious terrorist. Moreover, this absence of a constituency in the secular terrorist sense leads to a sanctioning of almost limitless violence against a virtually open-ended category of targets—that is, anyone who is not a member of the terrorists’ religion or religious sect. This explains the rhetoric common to holy terror manifestos describing persons outside the terrorists’ religious community in denigrating and de-humanizing terms such as, “infidels,” “non-believers,” “children of Satan,” and “mud people.” The deliberate use of such adjectives to condone and justify terrorism is significant, in that it further erodes the constraints on violence and bloodshed by portraying the terrorists’ victims as either “sub-human” or “unworthy” of living.

In addition, where the aims of the secular terrorists can be described as utilitarian—seeking to bring about changes to achieve the greatest benefits for the greatest number—the aims of religious terrorists are more accurately defined as the attainment of the greatest possible benefits for themselves and their co-religionists only. This

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61One of the groups with whom Timothy McVeigh, the accused Oklahoma city bomber, allegedly had close links.
further engenders a tremendous disparity between ends and means. Where the secular terrorist sees violence primarily as a means to an end, the religious terrorist arguably tends to view violence as an end in itself.

Finally, religious and secular terrorists also have starkly different perceptions of themselves and their violent acts. Where secular terrorists regard violence as a way of instigating the correction of a flaw in a system that is basically good or as a means to foment the creation of a new system, religious terrorists see themselves not as components of a system worth preserving, but as outsiders, and therefore seek vast changes in the existing order.62 This sense of alienation also enables the religious terrorist to contemplate far more destructive and deadly types of terrorist operations than secular terrorists and indeed to embrace a far more open-ended category of “enemies” for attack.

In fact, during the past decade, religious terrorists or members of various mainstream religious movements or smaller “cults” in the United States and Israel come closest to crossing the threshold of terrorist use of weapons of mass destruction or evidence the traits and tactical abilities to carry out such attacks. In 1984, for example, Christian white supremacists began to stockpile cyanide which they planned to dump into reservoirs in Washington, D.C. and Chicago, Illinois thereby poisoning those cities’ populations.63 That same year, in a far less serious but equally portentous incident, followers of the Bhagwan Shree Rajneesh (an Indian mystic who had established a large religious commune

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63 See Arkansas Gazette (Little Rock, Arkansas), April 27, 1987 cited in Hoffman, Recent Trends and Future Prospects of Terrorism in the United States, p. 61; and, Joseph M. Melnachak, “A Chronicle of Hate: A Brief History of the Radical Right in America,” TVI Report, Vol. 6, No. 4 (no date), pp. 41-42. This was also subsequently confirmed to the author by a Federal Bureau of Investigation (FBI) agent involved in the raid on the white supremacist compound. It should be noted that more than a decade earlier, members of another American white supremacist group, calling itself the “Order of the Rising Sun,” had plotted to poison the water supplies of Chicago, St. Louis and other cities. When arrested they were found in possession of 30 to 40 kilograms of typhoid bacteria culture. See Falkenrath, et al., America’s Achilles’ Heel: Nuclear, Biological, and Chemical Terrorism and Covert Attack, p. 38; and, Carus, Bioterrorism and Biocrimes, pp. 129-130
in a small Oregon town in the United States) contaminated the salad-bars of restaurants with salmonella bacteria in order to debilitate the local populace and thereby "rig" a key municipal election.\textsuperscript{64} The aforementioned 1984 plot by Jewish terrorists to blow up an Islamic shrine and thereby engineer a nuclear "holocaust" in the Middle East is yet another example.

The potentially catastrophic casualties that might have resulted from any of the above incidents, alongside the consequences in Tokyo had the Aum sect's nerve gas attack reached its true killing potential, the American white supremacists plot to poison water supplies and the indications that the November 1995 assassination of Israeli Prime Minister Itzhak Rabin was but a prelude to a campaign of mass murder by Jewish religious extremists designed to disrupt the peace process,\textsuperscript{65} illustrate the religious terrorists' deadly proclivities. This was again demonstrated by the tragic bombings of the American embassies in Kenya and Tanzania in August 1998.

**Case Study: The Embassy Bombings, bin Laden and WMD**

The bombings of the two U.S. diplomatic facilities clearly fits the pattern of religious-motivated terrorist acts resulting in considerably higher fatalities than secular terrorists—as well as possibly suggesting the religious terrorists' potentially strong attraction to WMD.

First, although the attacks were directed against the two American embassy structures and the U.S. diplomats who worked inside them, only six Americans were among the 257 persons killed. Indeed, the vast majority of the more than 5,000 others were Kenyan and Tanzanian

\textsuperscript{64}The RAND-St Andrews University Chronology of International Terrorist Incidents. For a particularly detailed and valuable account of the incident, see Thomas J. Torok, M.D., et al., "A Large Community Outbreak of Salmonellosis Caused by Intentional Contamination of Restaurant Salad Bars," JAMA: Journal of the American Medical Association, vol. 278, no. 5 (6 August 1997), pp. 389-395. See also the description in Carus, Bioterrorism and Biocrimes, pp. 66-67.

nationals;66 office workers, ordinary passers-by and innocent bystanders who found themselves tragically in the wrong place at the wrong time. The embassy bombers thus arguably evidenced little compunction or remorse about inflicting widespread, collateral casualties among the Kenyans and Tanzanians swept into the maelstrom of their attacks in order to achieve their objective (e.g., the destruction of the embassies). To the terrorists, these persons arguably were expendable: meaningless except as vehicles to heighten the horror of the near-simultaneous bombings and thus enhance their shock value.

Second, unlike the specific, intelligible demands of earlier generations of predominantly secular, terrorist groups who generally claimed credit for and explained their violent acts,67 no credible claim for the embassy attacks has been issued. That terrorists are generally less frequently claiming credit for their attacks may thus suggest an inevitable loosening of constraints—self-imposed or otherwise—on their violence: in turn also leading to higher levels of lethality68—such as the embassy bombing. Indeed, to date, the only information that has come to light regarding a motive or identification of the bombers has been in the form of a vague message taking responsibility for the blasts in defense of the Muslim holy places in Mecca and Medina and promising to "pursue U.S. forces and strike at U.S. interests everywhere."69

67Indeed, some groups—like the Irish Republican Army—not only claimed responsibility for attacks, but also issued warnings in advance of such operations. The communiqués of various European left-wing terrorist groups have often been sufficiently voluminous to warrant their publication in collected volumes. See, for example, Yonah Alexander and Dennis Pluchinsky, Europe's Red Terrorists: The Fighting Communist Organizations (London, Frank Cass, 1992), passim; and Red Army Faction, Texte der RAF (RAF Texts) (Malmo, Sweden, Verlag Bo Cavefors, 1977) passim.
68For a more complete discussion of the no claim/increasing lethality issue, see Bruce Hoffman, "Why Terrorists Don't Claim Credit--An Editorial Comment," in Terrorism and Political Violence, vol. 9, no. 1, (Spring 1997) and the more concise version published as "A New Kind of Terrorism: Silence is Deadlier," Los Angeles Times Sunday Opinion Section, 18 August 1996.
Third, the embassy attacks themselves do not in fact appear to have been undertaken by a specific, existing terrorist group itself as was so often the case in the past. Instead the bombings are believed to have been implemented through al-Qa'ida (Arabic: The Base; also spelt as al-Qaeda): a loose-knit, trans-national Islamic movement created and financed by a millionaire Saudi Arabian dissident, Osama bin Laden. In this respect, unlike the focused aims and distinct demands of previous terrorist organizations, al-Qa'ida is dedicated to such broad goals as the overthrow of all corrupt Muslim governments, the evisceration of all Western influence from the Muslim world and the abolition of artificial state boundaries currently dividing the Islamic people.\textsuperscript{70}

Religion and theological motivation also play a key function in the aims and motivations of al-Qa'ida. Indeed, a recent American Central Intelligence Agency (CIA) analysis reportedly notes that, "Terrorism is a key component of Al Qa'ida's strategy and bin Laden cites Koranic references in an effort to justify it."\textsuperscript{71} Indeed, in February 1998, for example, bin Laden supplemented his publicly declared war on the United States (because of its support for Israel and the presence of American military forces in Saudi Arabia)\textsuperscript{72} with a fatwa, or Islamic religious edict.\textsuperscript{73} With the issuance of this edict, bin Laden thereby endowed his calls for violence with an incontrovertible theological as well as political justification. To this end, he is believed to be able to call on the services of an estimated 4-5,000 well-trained fighters scattered


\textsuperscript{71}Quoted in Ibid.

\textsuperscript{72}Bin Laden explained his animus towards the U.S. in an interview televised by ABC's "World News Tonight" and "Nightline" programs on 10 June 1998. "We believe that the biggest thieves in the world and the terrorists are the Americans. The only way for us to fend off these assaults is to use similar means. We do not differentiate between those dressed in military uniforms and civilians; they are targets in this fatwa." Quoted in "Osama bin Laden In His Own Words," New York Times, 23 August 1998.

\textsuperscript{73}For both the text of bin Laden's fatwa and an accompanying analysis, see Magnus Ranstorp, "Interpreting the Broader Context and Meaning of Bin-Laden's Fatwa," Studies in Conflict and Terrorism, vol. 21, no. 4 (September-December 1998), pp. 321-330.
throughout the Muslim world. By comparison, many of the traditional, secular terrorist groups of the past were generally numerically finite. According to the U.S. Department of Defense, for example, neither the Japanese Red Army nor Germany's RAF, for example, ever numbered more than 20 to 30 hard-core members. The Red Brigades were hardly larger, with a total of fewer than 50 to 75 dedicated terrorists. Even the IRA and ETA could only call on the violent services of perhaps some 200-400 activists while the feared Abu Nidal Organization was limited to some 500 men-at-arms at any given time.

Finally, the appearance of these new types of adversaries—with often very different motivations and more ambitious capabilities, at least when compared to their secular counterparts—is already having a profound effect on terrorism; particularly with respect to terrorist interest in unconventional weapons. It was bin Laden's alleged interest in developing a chemical warfare capability for use against U.S. forces in Saudi Arabia that was used to justify the August 1998 American cruise missile attacks on the al-Shifa pharmaceutical plant in Khartoum. More information has subsequently come to light that a follower of bin Laden in al-Qa'ida had in 1993 attempted to purchase enriched uranium in hope of attempting to fabricate a nuclear weapon; while other reports have surfaced to claim that bin Laden in fact may already have acquired

74Marie Colvin, Stephen Grey, Matthew Campbell and Tony Allen-Mills, "Clinton gambles all on revenge," Sunday Times (London, 23 August 1998). Further, al-Qa'ida is believed either to support or train mujaheddin (Muslim holy fighters) in countries as diverse as Algeria, Afghanistan, Bosnia, Chechnya, Kosovo, Tajikistan, Egypt, the Sudan, Eritrea, Somalia, Yemen, the Philippines, and Kashmir. See "The CIA on Bin Laden," Foreign Report.

75U.S. Department of Defense, Terrorist Group Profiles, pp. 5, 35, 61, 64, 56, and 118.


a tactical nuclear weapon—presumably through sympathizers in the Central Asian Republics who in turn obtained the weapons in the Ukraine. Although the veracity of the reports concerning bin Laden and his followers cannot as yet be definitively ascertained, they nonetheless suggest a chilling confluence of motive and opportunity perhaps leading to capability. Admittedly, there remain any number of cogent technical arguments pertaining to and therefore greatly inhibiting the actual deployment, effective use of an actual nuclear weapon, in particular. Similarly, there remain formidable (but not insurmountable) barriers that would attend the construction and detonation of even a primitive, self-made device. At the same time, though, it is undeniably significant that terrorists today are at minimum actually thinking along these lines.

**RELIGIOUS TERRORISM AND POSSIBLE IMPLICATIONS FOR WMD USE**

The growth of religious terrorism and its emergence in recent years as perhaps the main driving force behind international terrorism’s rising lethality shatters some of our most basic assumptions about terrorists and the violence they commit. It also raises serious questions about the continued relevance of much of the conventional wisdom on terrorism—particularly as it pertains to potential future terrorist use of WMD. In the past, most analyses of the possibility of mass indiscriminate killing involving chemical, biological, radiological or nuclear terrorism tended to discount it for some of the reasons previously recounted. Few terrorists, it was argued, know anything about the technical intricacies of either developing or then dispersing

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78 Michael Binyon, "Bin Laden 'now has nuclear arsenal'," The Times (London), 7 October 1998.


80 On the surmountable hurdles regarding the relative ease with which a radiological device could be constructed see Allison, et al., Avoiding Nuclear Anarchy, pp. 57-61; and, Arbman, "A Swedish View on Nuclear Terrorism," pp. 56-57, 59 & 60.
such weapons. Political, moral, and practical considerations were also perceived as important restraints on terrorist use of such weapons of mass destruction. Finally, terrorists, we assured ourselves, wanted more people watching than dead. Therefore we believed that terrorists arguably had little interest and still less to gain from killing wantonly and indiscriminately. While some of these arguments perhaps are still pertinent to most secular terrorists, incidents like the nerve gas attack on the Tokyo subway and the World Trade Center and Oklahoma City bombings in particular—alongsidesome of the other attacks perpetrated by religious terrorists and additional plots that went awry—detailed in this report, would appear to render these arguments dangerously anachronistic.

In retrospect, Aum's enterprising activities to develop a WMD deployment capability may in fact not have gone unnoticed by other terrorist groups in addition to bin Laden's movement. In May 1997, for example, Scotland Yard arrested five members of radical Algerian Muslim Armed Islamic Group (GIA) in London who were charged with attempting to purchase the chemical ingredients with which to manufacture sarin—the same nerve gas used by Aum in the Tokyo underground attack. Although the GIA's intended target is still not clear—with accounts ranging from the Paris metro to police barracks in Algiers itself—there is little doubt now that GIA's efforts to acquire this capability were genuine.81

In sum, there are compelling new motives, such as those raised by religious terrorism, that—coupled with increased opportunities (e.g., greater and/or easier access to critical information and key components involving WMD)—could portend for an even bloodier and more destructive era of violence than before. Certainly, this combination of motive, opportunity and capability implicit in religious justifications of violence could launch terrorism on a trajectory towards higher levels of lethality and destruction, perhaps employing WMD.

81The plot, as recounted by Xavier Raufer, "Le GIA preparait-il un attentat au gaz sarin en France?" VSD (Paris), 9 November 1997, was directed against the Paris Metro; however, information has since come to light that the police in Algiers were the target. Interviews with a senior anti-terrorism officer, Scotland Yard, London, April 1998 and with an American intelligence analyst, Washington, D.C., November 1997.
IV. ADDITIONAL TERRORISM TRENDS WITH IMPLICATIONS FOR WMD: MORE AMATEURS AND MORE ADEPT PROFESSIONALS

Two other trends that might affect terrorist proclivities towards the use of WMD are the increasing "amateurization" of terrorism, a reflection, in part, of the growth of religious terrorism, but a significant development in its own right that also may contribute to the loosening of previous self-imposed constraints on operations and lethality; and, the increasing sophistication and evident growing tactical and technological competence of veteran terrorist organizations across the technological spectrum.

THE AMATEURIZATION OF TERRORISM

The chain of events that emerged from the February 1993 bombing of New York City's World Trade Center—which included the uncovering of a plot five months later to free the terrorists arrested for the Trade Center blast by destroying two commuter tunnels and a bridge linking New Jersey to Manhattan, blowing up the United Nations building, staging a forced-entry attack on the downtown Federal building housing the FBI's New York field office, and assassinating various public officials—perhaps provided the first clear hint of a need to revise our notions of the stereotypical terrorist organization. The Trade Center bombing, for example, involved four main conspirator bombers who appear to have come to know one another through, and then in turn had joined forces based on, their attendance at the same place of worship, a Jersey City, New Jersey mosque. In one case as well, family ties brought together one of the bombers with a fellow conspirator who was not only implicated in the Trade Center bombing, but was among the 15 persons indicted in the follow-on plans to obtain the bombers' release, and was already serving a prison sentence in connection with the November 1990 assassination of the Jewish extremist, Rabbi Meir Kahane.82

82Ibrahim A. Elgabrowny, who although not charged with the Trade Center bombing specifically, was nonetheless implicated in the crime and was convicted in the subsequent plot to free the bombers, is the cousin of El Sayyid A. Nosair, Kahane's assassin. See Jim Mcgee and Rachel
Hence, the amateurish World Trade Center bombers, who were brought together through friendship, blood relationship and a common religious belief, may represent the model of a new kind of terrorist group: a more or less ad hoc amalgamation of like-minded individuals sharing a common religion, the same friends and frustrations, perhaps having family ties as well, who simply gravitate toward one another for specific, perhaps even one-time, operations. Rather than being tightly controlled from abroad, these new part-time terrorists and independent free-lance groups are more likely to be only indirectly connected to a central command authority or a foreign government.

Moreover, since this more amorphous and perhaps even transitory type of group will lack the “footprints” or modus operandi of an actual, existing terrorist organization, it is likely to prove more difficult for law enforcement to get a firm idea or build a complete picture of the dimensions of their intentions and capabilities. Indeed, as one New York City police officer only too presciently observed two months before the Trade Center attack: it wasn’t the established terrorist


For example, the arrests made in connection with the World Trade Center bombing brought to light further evidence that, since 1985, at least two other worshippers of the same Jersey City mosque that two of the convicted bombers attended had been previously implicated in terrorist acts in the New York metropolitan area. The first incident involves the arrest, in December 1985, of Sultan Ibrahim El Gawli, an Egyptian-born travel agent, by U.S. Customs Service officers. El Gawli was convicted of attempting to export 150 pounds of C-4 plastic explosives, 100 blasting caps, remote detonators and a 9-mm. silencer-equipped pistol to Palestinian terrorists in Israel and the Occupied Territories. He served 18 months in prison and has since been released. The second, is the assassination of Rabbi Meir Kahane by El Sayyid A. Nosair, who also was born in Egypt and like El-Gawli and the two World Trade Center bombing suspects—Mohammed Salameh, and Nidal Ayyad—worshipped at the Masjid al-Salam Mosque in Jersey City. A search of Nosair’s home following his arrest uncovered bomb-making manuals, 1,440 rounds of 7.62 ammunition used in AK-47 assault rifles, manuals on the use of listening devices and explosive traps. See John Kifner, “Kahane Suspect Is a Muslim With a Series of Addresses,” New York Times, November 7, 1990; Mary B.W. Tabor, “Kahane Suspect Remains Focal Point in Bomb Plots,” New York Times, 23 May 1993; and, John J. Goldman, et al., “N.Y. Trial in Rabbi’s Death Planted an Explosive Seed,” Los Angeles Times, 4 July 1993.
groups—with known or suspected members and established operational patterns—that worried him, but the hitherto unknown "splinter groups," composed of new or marginal members from an older group, that suddenly surface out of nowhere to attack.84

Essentially, a combination of part-time and free-lance terrorists, such loose groups of individuals, may be—as the World Trade Center bombers themselves appear to have been—indirectly influenced or remotely controlled by some foreign government or—as now more likely seems the case—some non-governmental entity, such as bin Laden and al-Qa'ida. The suspicious transfer of funds from banks in Iran and Germany to a joint account maintained by the accused bombers in New Jersey just before the Trade Center blast have provided the first indication of this more indirect and circuitous connection to a foreign patron.85 It is also not difficult to recognize how the "amateur" terrorist may become increasingly attractive to either a more professional terrorist group and/or their state patron as a pawn or "cut-out" or simply as an expendable minion. In this manner, the "amateur" terrorist could be effectively used by others to further conceal the identity of the foreign government or terrorist group actually commissioning or ordering a particular attack.

This new breed of terrorists possibly represents even more of a threat than their predecessors.86 While less control from some central

84Interview with RAND research staff, November 1992.
85Federal authorities reported that they had traced nearly $100,000 in funds that had been wired to some of the suspects from abroad, including transfers made from Iran. An additional $8,000 had been transferred from Germany into a joint bank account maintained by two of the bombers. Ralph Blumenthal, "$100,000 From Abroad Is Linked to Suspects in the Trade Center Explosion," New York Times, 15 February 1993. According to one of the other convicted bombers, Mahmud Abohalima, funds had also been routed through the militant Egyptian Islamic group, Hamas al-Islamiya, whose spiritual leader is Sheikh Omar Abdel Rahman, now awaiting trial in connection with the June 1993 plot, and by the radical transnational Muslim Brotherhood organization. Additional financing reputedly was provided by and via Iranian businesses and Islamic institutions in Saudi Arabia and Europe. Mary B.W. Tabor, "Lingering Questions on Bombing," New York Times, 14 September 1994.
86See, for example, William M. Carley and Timothy L. O'Brien, "Web of Fear: New Kind of Terrorist, Amateur and Ad Hoc, Worried
command authority may indeed be exerted, this may also result in fewer constraints on the terrorists' operations and targets and fewer inhibitions on their desire to inflict indiscriminate casualties. It is suspected, for example, that the bombers' intent in attacking the World Trade Center was to bring down one of the twin towers. It is significant too that rather than having been deterred or otherwise affected by the rapidity with which the FBI and other authorities solved the Trade Center case, the 15 individuals implicated in the follow-on plot, to obtain the release of the Trade Center bombers, had plotted even more egregious acts of violence.

This combination of the growth of religious terrorism alongside the proliferation of "amateur" terrorists also raises a number of other disquieting possibilities. Previously, terrorism was not just a matter of having the will and motivation to act, but of having the capability to do so—the requisite training, access to weaponry, and operational knowledge. These were not entirely readily available capabilities and were generally acquired through training undertaken in camps known to be run by either other terrorist organizations or in concert with the terrorists' state-sponsors. Today, however, means and methods of


For example, the estimated dozen or so terrorist training camps long operated under Syria's aegis in Lebanon's Bekka Valley; the various training bases that have been identified over the years in the Yemen, Tunisia, the Sudan, Iran and elsewhere and of course the facilities
modern terrorism—including even WMD—are publicly available to an extent that is unprecedented. Information pertaining to the construction or fabrication of almost every type of weapon imaginable can now be readily obtained at bookstores, from mail-order publishers, on CD-ROM or over the Internet. This is true (albeit to varying degrees) of information for nuclear, biological, and chemical weapons as well. Relying on such commercially published or readily accessible bomb-making manuals and operational guides to poisons, maintained during the cold war by the East Bloc. Information provided to the author by analysts in the U.S. State Department’s Bureau of Diplomatic Security, January 1997.

See, for example, the on-line catalogue of Loompanics Books available on the Internet. Subject headings include "how to" books on murder, death and torture; bombs and explosives; weapons, and guerrilla warfare. Among the titles are Uncle Fester's Silent Death: Revised and Expanded (Port Townsend, WA, Loompanics Books, 1997); Rex Feral’s Hit Man; and, How To Make Disposable Silencers. Books like Maxwell Hutchinson’s The Poisoner’s Handbook (1988), which explains in DIY (do it yourself) fashion how to extract the deadly toxin ricin from castor beans, and Silent Death, which describes how to use toxic compounds to poison people, have been found in the hands of terrorists and would-be terrorists. See Associated Press, "Man Accused of Possessing Lethal Toxin Hangs Himself," Los Angeles Times, 24 December 1995; and, John Kifner, "Antiterrorism Law Used In Poison Smuggling Case," New York Times, 23 December 1995 and "Man Arrested in Poison Case Kills Himself In Jail Cell," New York Times, 24 December 1995. See also, Giles Whittel, "How to make a killing: always look on the dark side of life," The Times (London), 22 October 1998.

See, for example, the CD-ROM program, "Secret Subjects" described in Enrique Figueredo and David Jimenez, "How to Learn Terrorism Perfectly—By Order," El Mundo (Madrid), 24 October 1995.

Plans for constructing an atomic bomb, for example, can be found "Documentation and Diagrams of Outlaw Labs," File Courtesy of Outlaw Labs at http://cekirkkek.nuklear.itu.edu.tr/firat/nuce/nuc bomb.html (June 1997).


Barnaby, Instruments Of Terror, p. 135; and Purver, Chemical and Biological Terrorism.
assassinations and chemical and biological weapons fabrication,\textsuperscript{95} the
"amateur" terrorist can potentially be just as deadly and destructive as
his more "professional" counterpart.\textsuperscript{95}

Terrorism, accordingly, has arguably now become both accessible to
anyone with a grievance, an agenda, a purpose or any idiosyncratic
combination of the above.\textsuperscript{97} With regard to WMD in particular, this has
already been demonstrated by three incidents that involved persons with
connections to various American Christian white supremacist
organizations who plotted to obtain deadly toxins and contaminants. In
1995, four members of the Minnesota Patriots Council, a so-called
"militia" organization, were convicted of following the recipe in a
book\textsuperscript{98} to produce enough ricin\textsuperscript{99} to kill at least 129 persons, allegedly
as part of a plan to murder Internal Revenue Service agents, U.S.
Marshals and local deputy sheriffs.\textsuperscript{100} That same year, a man described
as a "certified microbiologist"—who also had links with the Idaho-based

\textsuperscript{95}The detailed, step-by-step, 98-page The Terrorist's Handbook
"published" by "Chaos Industries and Gunzenbombz Pyro-Technologies" that
has been widely available for "down-loading" from various Internet sites
for at least two years is but one example of the easy availability of
these sources.

\textsuperscript{96}See, for example, David E. Kaplan, "Terrorism's next wave: nerve
gas and germs are the new weapons of choice," \textit{U.S. News & World Report},
17 November 1997.

\textsuperscript{97}In this respect, even though the convicted "Unabomber," Theodore
Kaczynski, was not a terrorist per se, he is a good example of the
lethal effects that even amateurs can have. From a remote cabin in the
Montana hinterland, Kaczynski fashioned simple, yet effective home-made
bombs from ordinary materials that were dispatched to his victims via
the post. Despite one of the most massive manhunts staged by the FBI in
the United States, the "Unabomber" was nonetheless able to elude
capture—much less identification—for 18 years and indeed to kill three
persons and injure 23 others.

\textsuperscript{98}Carus, \textit{Bioterrorism and Biocrimes}, p. 22.

\textsuperscript{99}According to the FBI, ricin is ranked third in toxicity behind
only plutonium and botulism. A minute amount can kill in minutes if
inhaled, ingested or absorbed through the skin. See Associated Press,
"Man Accused of Possessing Lethal Toxin Hangs Himself," \textit{Los Angeles

\textsuperscript{100}The two men were charged with possession of 0.7 grams of ricin
along with a home-made "deliver system" that consisted of a solvent
mixed with skin lotion. See Conrad dePiebre, "2 convicted of possessing
deadly poison," \textit{Star Tribune} (Chicago), 1 March 1995; and, the detailed
analysis of this incident in Carus, \textit{Bioterrorism and Biocrimes}, pp. 125-127.
Aryan Nations white supremacist umbrella organization—was able to order sufficient quantities of bubonic plague through the mail from a Maryland chemical supply firm.\footnote{101} Finally, in December 1995, an Arkansas resident with reputed ties to white supremacist "survivalist" groups in that state was arrested at his rural farm on charges of having attempted to smuggle 130 grams of ricin into the U.S. from Canada two years before.\footnote{102}

To cite another example of the potentially destructively lethal power of "amateur" terrorists involving WMD use, it is believed that the 1993 World Trade Center bombers' intent was in fact to bring down one of the 110-story twin towers on top of the other.\footnote{103} By comparison, there is no evidence that either the secular or "professional" terrorists of the past—the persons we once considered to be the world's arch-terrorists, such as the Carloses, Abu Nidals, and Abul Abbases—ever contemplated, much less attempted, to destroy completely a high-rise office building packed with people: much less further enhance their attack by deploying a chemical weapon.

\footnote{101}He had obtained three vials of Yersinia pestis—a bacterium credited with having wiped out one-third of 14th-Century Europe. In addition to the bacterium, police also found in his home a dozen M-1 carbines, smoke grenades, blasting caps, and white supremacist literature. See Karl Vick, "Man Gets Hands on Bubonic Plague Germs, but That's No Crime," Washington Post, 30 December 1995; Carus, Bioterrorism and Biocrimes, pp. 156-158; and, Falkenrath, et al., America's Achilles' Heel: Nuclear, Biological, and Chemical Terrorism and Covert Attack, pp. 39-41.


Whether abetted tacitly or actively by a foreign patron or facilitated by commercially obtainable published bomb-making manuals and operational guidebooks, the "amateur" terrorist can be just as deadly—and perhaps even deadlier—and destructive than his more "professional" counterpart. Given the inherent difficulty in tracking and anticipating this category of adversary—as opposed to the often more established modus operandi and patterns of existing terrorist groups—this new breed of terrorist may pose a greater future threat.

"Amateur" terrorists are dangerous in other ways as well. In fact, the absence of some central command authority may result in fewer constraints on the terrorists' operations and targets and—especially when combined with a religious fervor—fewer inhibitions on their desire to inflict indiscriminate casualties. Israeli authorities, for example, have noted this pattern among terrorists belonging to the radical Palestinian Islamic Hamas organization in contrast to their predecessors in the ostensibly more secular and professional, centrally-controlled mainstream Palestine Liberation Organization terrorist groups.104 As one senior Israeli security official noted of a particularly vicious band of Hamas terrorists: they "were a surprisingly unprofessional bunch . . . they had no preliminary training and acted without specific instructions."105

Whether a group like Hamas would ever resort to the use of WMD is by no means clear, much less even likely.106 Admittedly, there has been

104 Interview with senior Israeli security official responsible for counterterrorism, May 1998.
106 One senior Israeli official, for example, thought that "Cyber terrorism much more of a threat. First it is a challenge and there are enough young hackers willing to do it. Also, it is completely anonymous and safe form of attack. What is to stop someone form renting a house in New York City and getting three or four phone lines and then launching an attack? The first priority would be financial. The military in Israel is too hard to penetrate. We are not like the Pentagon, it is very difficult to gain access to our systems. The target instead would be to shut down the Tel Aviv stock exchange or paralyze financial transactions." Interview with senior Israeli security official responsible for counterterrorism, May 1998.
at least one unconfirmed report that during the early 1990s Hamas
attempted to develop a chemical weapons capability.\textsuperscript{107} And, following
the botched 1997 attempt by the Mossad, Israel's intelligence service,
to assassinate the Hamas leader Khaled Meshal using an exotic chemical
agent, the group issued a threat to retaliate at a time and place of its
choosing—perhaps even outside the region—using a chemical weapon
itself.\textsuperscript{108} Even still, both senior Palestinian and Israeli security and
intelligence officials themselves completely dismiss this
possibility.\textsuperscript{109} At the same time, however, discussions with these same
officials underscore the differences between the less professional
terrorist groups like Hamas compared with their predecessors in more
traditional organizations like the PLO. They also raise a number of
implications regarding the tactical and targeting preferences of these
two different generations Palestinian groups. In a particularly
revealing aside, a former senior Fatah commander, who is now a senior
security officer in the Palestinian Authority, explained how,

Many times people came and proposed these things [BW or CW
attacks] to us. But always we turned them down. First, we
were going to be an army and wanted to fight like an army... .
Fatah's goal was to defeat or to destroy the Israeli army.
That goal existed for Fatah or the PLO. In fact it doesn't
exist for Hamas. Hamas is a different project or thing. It's
military activity is to undermine the Palestinian Authority
and not to threaten the existence of Israel as a state. Hamas
is not 'for' anything, as we were, but against something.
It's purpose is to undermine the peace process and to weaken
the Palestine Authority and not to threaten the existence of
Israel as a state. That was our target before signing the
peace agreement.

\textsuperscript{107}Testimony of Steve Emerson, an American investigative journalist
and specialist in Islamic terrorism, before the U.S. Senate, Judiciary
Subcommittee on Terrorism, Technology and Government Information, 24
February 1998 quoted in Carus, Bioterrorism and Biocrimes, p. 172.
\textsuperscript{108}Discussions with Israeli terrorism specialists, Tel Aviv, May
1998. See also, Barton Gellman, "Hamas Founder Returns to Gaza Strip as
\textsuperscript{109}This was the consensus from a series of discussions that the
author had with senior Palestinian and Israeli security and intelligence
officials in Jerusalem, Tel Aviv and Gaza City during May 1998.
Second, we knew that the Israelis had these same types of weapons and would not hesitate to use them against us. That was why we never used them.\footnote{Interview with a former senior Fatah commander who is now a high-ranking security official in the Palestinian Authority, Gaza City, Palestine, May 1998.}

The above statement is interesting on several levels. First, it suggests that the PLO and Fatah (as the largest and most influential military force within that umbrella organization) were reluctant to use such weapons because of the fear of Israeli retaliation. These fears were grounded not just in the belief that there was a target for the Israelis to retaliate against (e.g., the Palestinian’s embryonic army, its personnel and materiel), but also that such a provocation would result in the total destruction of the military might that the organization was then so painstakingly constructing and, apparently, so deeply valued preserving. The situation is different for Hamas, given that there is little if anything tangible for the Israelis to target, given the movement’s small size and intensely clandestine character and therefore the group has no tangible assets at risk in the event of Israeli reprisal. Moreover any especially harsh Israeli crack-down in response to a WMD attack (no matter how inconsequential that attack or even attempt might be) could conceivably play precisely into Hamas’ hands. For example, in this context, Hamas could deliberately seek to provoke just such an Israeli reaction through the use of some WMD in order to scuttle the peace and/or completely discredit the Arafat regime as powerless to protect its citizens from such reprisals.

Second, Fatah and the PLO perceived themselves as building something; an army for a state-in-waiting. Hamas, on the other hand, is perceived as being out to destroy, not build, and therefore, the above-quoted Palestinian Authority official argued, possesses a very different rationale and mindset for its violence. In this respect, Fatah and the PLO are regarded as a disciplined military force; whereas Hamas is seen as an uncontrolled, unfocused collection of unprofessional fighters. Therefore, perhaps the biggest differences drawn between the new generation of Palestinian terrorists in Hamas and their predecessors in
the PLO is both in their respective aims and purposes and perceived professionalism as well. The implication of this may be that this type of terrorist organization that performs the role of a "spoiler," that is, oriented to the disruption or destruction of a peace process or some agreed-upon negotiated settlement, may be more disposed than other types of terrorist groups to use whatever violence or whatever means is necessary for that purpose.

**Professional Terrorists**

While on the one hand terrorism is attracting amateurs, on the other hand the sophistication and operational competence of some professional terrorist organizations is also increasing. These professionals are becoming demonstrably more adept in their trade craft of death and destruction; more formidable in their abilities of tactical modification, adjustment and innovation in their methods of attack; and appear to be able to operate for sustained periods of time while avoiding detection, interception and arrest or capture. More disquieting, these professional terrorists are apparently becoming considerably more ruthless as well. A case in point perhaps is the Liberation Tiger of Tamil Eelam, or LTTE—often referred to as the "Tamil Tigers." 111

The LTTE, lead by Velupillai Prabhakaran, is today reputed to be among the "more advanced and ruthless terrorists in the world." 112

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111 In October 1997, Secretary of State Madeleine Albright formally designated 30 foreign groups as terrorist organizations under the Antiterrorism and Effective Death Penalty Act of 1996. Among these is the LTTE (see Office of the Coordinator for Counterterrorism, *Patterns of Global Terrorism* 1997. Washington, D.C., U.S. Department of State Publication 10535, April 1998, pp. 4 & 66-68). It should be noted in the context of this paper that, by applying this description to the LTTE, the author is in no way either minimizing or denigrating the suffering of the Tamil people or the hardships that have been inflicted upon them.

approximately 12,000 fighters also arguably comprise one of the best trained non-state military forces in the world: complete with advanced weaponry, including (it is believed) Stinger surface-to-air missiles; armored and artillery units; its own blue-water navy, with ocean-going cargo vessels alongside a formidable array of coastal attack craft; an alleged embryonic air capability of micro-light or ultra-light aircraft; and such elite, commando units as the special suicide-attack cadre known as the "Black Tigers"; its naval counterpart, the "Sea Tigers"; a women's suicide-attack unit, the "Black Tigresses,"; and, a battle-hardened fighting unit entirely of children, called the "Baby Brigade." Powerful enough to have turned back or defeated several government military pushes over the past decade, the LTTE today have fought the Sri Lankan Armed Forces (SLAF) to a standstill in a conflict that, since 1983, has claimed more than 30,000 lives.\footnote{Dan Smith, et al., The State of War and Peace Atlas (London: Penguin, 1997), p. 46.}

In addition to the guerrilla tactics employed by LTTE cadre in the eastern districts of the island and the more conventional military engagements fought in the northern part, the LTTE has used terrorist tactics as well:\footnote{The U.S. Department of State classifies the LTTE as a terrorist organization, explaining that the group "has an integrated battlefield insurgent strategy with a terrorist program that targets not only key personnel in the countryside but also senior Sri Lankan political and military leaders in Colombo." See Patterns of Global Terrorism 1996, p. 54. The LTTE was also classified as a terrorist group by the U.S. Department of Defense in its Terrorist Group Profiles, pp. 120-121.} primarily in operations targeting the Sri Lankan capital of Colombo. These have frequently involved suicide bombings and, significantly, because they inevitably cause significant numbers of collateral casualties among civilians, the Colombo operations are never claimed. For example, the LTTE has never taken credit for the suicide truck bombing of the Central Bank of Sri Lanka in January 1996, that killed 86 persons and wounded 1,338 others or the November 1994 assassination of presidential candidate Gamini Dissanayake, which claimed the lives of 54 persons and injured 72—though their responsibility is widely suspected.
The LTTE, however, is not the stereotypical, militant religious organization whom one might expect would be most likely to employ a WMD weapon, but an ethno-nationalist separatist group fighting for the creation of an independent Tamil state on the island nation of Sri Lanka. Indeed, it was the LTTE and not the Aum sect who were in fact the first non-state insurgent, guerrilla or terrorist organization to stage a chemical weapons attack. In June 1990, the LTTE used chlorine gas in its assault on a besieged SLAF Special Forces camp at East Kiran in the Batticaloa district. The attack—much like Aum's five years later that would involve nerve gas carried in polyurethane rubbish bags that were pierced with sharpened umbrella tips—was relatively crude: thus again suggesting the impediments to mounting more sophisticated operations employing WMD weapons. Several large drums of the chemical were transported from a nearby paper mill in Vallicheni. They were then positioned close to the perimeter around the camp. When the wind currents were judged right, the insurgents released the gas, which wafted into the camp. It is not known how many soldiers were affected by the gas or succumbed to its effects—though various sources concede that some soldiers may have been killed and some were otherwise incapacitated. What is known is that the SLAF itself has no chemical warfare capability and therefore there were neither protective clothing, nor gas masks nor any sort of preparation to defend against the attack. Moreover, in order that the SLAF knew clearly that they were under a gas attack, the LTTE reportedly broadcast the fact that night throughout its radio net which it knew Sri Lankan forces monitored. In this way, the group sought to extract the maximum psychological warfare benefit from the operation and to instill fear and terror among SLAF troops at other

115Incident #19900618 in the RAND-St Andrews Database of Terrorist Use of Weapons of Mass Destruction (Chemical, Biological and Nuclear). The use of this weapon was verified personally by the author who visited the destroyed encampment in December 1997 and saw the drums of chlorine gas used in the attack, that had been left on the outskirts of the camp. It was further confirmed in the course of in-depth interviews with more than a dozen serving or retired senior military commanders, intelligence officials, police officers and captured LTTE cadre conducted in Colombo, Jaffna, and Batticaloa, Sri Lanka by the author during December 1997.

116Chlorine was one of several chemicals used at the paper factory to make straw into newsprint. It apparently is a method that is no longer used in Sri Lanka at least.
garrisons. The SLAF camp eventually succumbed and was over-run by LTTE fighters. It was reported that the LTTE continued its experiments with such unconventional weapons the following year, firing mortar shells containing CS tear gas that it had seized from police stations onto other SLAF bases under assault. These incidents—as along with others concerning alleged LTTE poisoning of wells and water-supplies—however, could not be verified.

The LTTE used poison gas once, why hasn’t it done so again? Three plausible explanations present themselves. First, the 1990 period was a time when the group was using many different kinds of improvised weapons because of a shortage of imported armaments—a situation that has since been dramatically reversed. As one highly decorated senior SLAF officer observed, the LTTE’s "need for innovation is now overcome by more standardized weapons because the LTTE now has access to them. The LTTE is presently fighting a more conventional war simply because they have access to such [e.g., large stocks of conventional] weapons." Hence, at a time when the LTTE may have had great difficulties in procuring conventional weapons and sustaining its armed struggle, its commanders may have seen the use of a chemical weapon primarily for its psychological warfare benefits. In this respect, by deliberately broadcasting its use of this weapon, the LTTE’s intent was likely to spread fear and foment uncertainty among other SLAF encampments that would be of considerable value to the group in future assaults. Also, at a time when the LTTE was at a significant comparative disadvantage given the superior manpower and resources at the SLAF’s disposal, the use of a chemical weapon may have been embraced for its force equalizing dimension: thus accruing for the LTTE a coercive and intimidating power

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117In 1987 the LTTE reportedly employed a disinformation, cum psychological operations, campaign in tandem with its battlefield efforts to disrupt an Army push into Jaffna by spreading rumors that it was using chemical and biological weapons against the advancing troops. Interview with senior police commander, Colombo, Sri Lanka, December 1997.

118See, for example, the account of LTTE’s weapons procurement in Raymond Bonner, "Tamil Guerrillas in Sri Lanka: Deadly and Armed to the Teeth," New York Times, 7 March 1998.

119Interview with senior SLAF military officer, Colombo, Sri Lanka, December 1997.
that its own smaller numbers and limited conventional armaments at that
time might not as effectively convey.

Second, the decision to use a chemical weapon tactically against a
demonstrably isolated military target, where the risk of collateral
casualties among a surrounding civilian population was low, if not non-
existent, may also account for the group's selective use of this unique
method of attack.

Finally, as is most frequently argued, the LTTE may not have wanted
to continue employing weapons that risked making them unpopular among
their Tamil constituents either in Sri Lanka or abroad—and not least in
the international community to which the LTTE appeals for sympathy and
legitimization.\textsuperscript{120} "Their international image would restrain them," one
senior SLAF military commander commented. "The LTTE is trying to answer
international opinion that they are not a terrorist organization, they
are trying to explain this . . . a chemical weapons attack would negate
those efforts."\textsuperscript{121} A former senior intelligence operative agreed:
"Terrorism is a balancing act. Timing is critical and is such at
present that Prabhakaran is always very conscious of reactions abroad to
LTTE terrorist attacks in Sri Lanka—in Colombo in particular, which is
why those attacks are not claimed."\textsuperscript{122}

At the same time, other knowledgeable observers of the LTTE point
out that the above incident may not have been such an isolated
occurrence and that there is evidence of other LTTE interest in chemical
or biological weapons or nuclear issues in general. Unconfirmed
reports, for example, suggest that the LTTE has sought to purchase
chemicals for use in weapons that would most likely be employed when
"they are pressed . . . especially against the military or in areas
where there is no Tamil population." Indeed, one senior SLAF officer
feared that the greatest likelihood of their use might be when the LTTE
was on the verge of defeat and then that it would "try to implement a

\textsuperscript{120}Interview with retired senior Sri Lankan intelligence official,
\textsuperscript{121}Interview with senior SLAF military commander Jaffna, Sri Lanka,
December 1997.
\textsuperscript{122}Interview with former senior Sri Lankan intelligence operative,
doomsday scenario." That the group might have an interest in such unconventional weapons was further alluded to in interviews with captured LTTE cadre. One individual with particular knowledge of the organization's operations stated that the LTTE maintained a research laboratory for this purpose, but the interviewee did not know exactly what is done in it. The LTTE, the interviewee said, "is thinking about mass attacks, but still not operating on that scale." In this respect, there has been—at least this person claimed—a concerted effort by the group to "know about nuclear and biological matters. So many documents were collected [overseas by LTTE sympathizers and supporters] and sent . . . to the [organization's] military office," the interviewee claimed. This person specifically described how in the mid-1980s, the LTTE's then-intelligence commander, known as Kittu (his real name is Krishnakumar Sathasivam) developed a particular interest in an Indian commercial power plant located 60 kilometers from Madras, the Kalpakkham atomic energy facility. As some 80% of the plant's employees were Tamils, the LTTE approached some of these workers and began to collect various documents and records from their sympathetic co-religionists that were then sent to the LTTE's local military office in Madras. "So many documents I collected," a former LTTE operative recalled. It is not known to what purpose or end these materials were sought by the LTTE. Meanwhile, other reports relate how in 1985 a supply of radium was taken from Tellipullai Hospital in Jaffna in 1985 as part of an LTTE plan to drop it into the middle of an army camp from a small plane flying over head. The LTTE had previously threatened to carry out just such an operation and may have therefore attempted to make good on this threat. The operation had to be abandoned, however, when the Canadian organization that had donated the medical equipment containing the radium element to the Tamil hospital supposedly demanded—and obtained—the equipment's return, along with the radium.\(^{125}\)

\(^{123}\)Interview with senior SLAF naval officer, Colombo, Sri Lanka, December 1997.

\(^{124}\)Interview with former LTTE cadre, Colombo, Sri Lanka, December 1997.

\(^{125}\)Interview with former senior Sri Lankan intelligence operative, Colombo, Sri Lanka, December 1997.
That the LTTE is or at least was thinking along these lines was evident in other interviews with captured insurgents. Although one thought that the LTTE had "no interest in using these weapons at present," this person was convinced that "in time this would change. It is their way of thinking, especially their leader," this person said. "If they used [any of these weapons] at the moment, international opinion would turn against them." 126 Significantly, another former LTTE insurgent who was interviewed in another part of the country, expressed the same beliefs. 127 Indeed, one young fighter said that if he was ordered to use such weapons he would not hesitate—even if civilians, Tamil or Singhalese, would likely be affected. "That is the way of war," this person explained. Although he admitted that he would "be sad if any Tamils were killed," he had however thought about this and had come to the conclusion that, "It is okay to kill [Tamil civilians] in the course of an operation, but I would feel sorry." The success of the operation, he explained, is the most important imperative for any warrior. For this reason, a soldier like himself must carry out any order without question. "We have to do this"—that is, whatever our orders are, he said—"for the future, for the next generation, so that they don't have to suffer, so they can live in happiness." 128

127 Interview with former LTTE cadre, Batticaloa, Sri Lanka, December 1997.
IV CONCLUSION

The bombings of the American embassies in Kenya and Tanzania in August 1998 demonstrate that terrorism is—and will remain—one of the main threats to international security as we approach the twenty-first century. The tragic attacks also underscore how terrorism is among the most fluid and dynamic of political phenomena: one constantly evolving into new and ever more dangerous forms in order to obviate existing security procedures and pose fresh challenges to the governments against whom this violence is directed. In this respect, reports that the militant international Islamic movement, which is believed to have been behind the blasts, had previously conspired not only to develop a chemical weapons capability but also to obtain the fissile materials required to construct a nuclear device, coupled with claims that it may already have even acquired an actual nuclear weapon, suggests the prospect that terrorists might again employ some WMD can no longer be either prudently or completely discounted.129

The appearance of a confluence of new motives, opportunities and capabilities could impel terrorists to employ a chemical, biological or nuclear weapon or radioactive device. The most obvious motive would involve a religious imperative, whereby a group animated by a desire either to hasten the redemption associated with the millennium through acts of violence or to attempt to implement Armageddon by the apocalyptic use of a nuclear weapon, deliberately embarks on such a course of action as reports concerning the Aum Shinrikyo sect in Japan suggest.

However, it would be mistaken to see such motivations involving WMD terrorism as exclusively within the purview of religious terrorists. One can readily envision similar scenarios involving entirely secular terrorist groups such as the Tamil Tigers. In the case of already

129According to a senior British intelligence source, at the moment these reports can neither be proved nor disproved; but it is none the less a prospect and threat that is taken very seriously by the American and British governments. Interview, October 1998.
extremely violent, seemingly intractable and increasingly stalemated ethno-nationalist conflicts, for example, one has to consider whether eventually one side might finally seek to deliver some kind of a "knock-out" blow employing some form of WMD against their opponents' civilian population. One possible scenario would involve an ethno-nationalist minority either on the verge of military defeat or having some political settlement imposed on them to employ such a weapon in a final act of desperation. Given the typical "winner-takes-all" stakes of these conflicts, terrorism might also logically be employed against countries contributing military contingents to international peacekeeping forces charged with enforcing contested political agreements or even separating belligerents just as one side is on the verge of vanquishing its opponent. Further, the prospect that these conflicts might be continued or carried on by other means beyond their ostensible political and/or military endgames cannot be dismissed. Revenge and vengeance, as age-old motivations of intense bloodletting and carnage, therefore should be considered as possibly leading to terrorist use of some weapon of mass destruction. Potential terrorist use of even a "dirty" (e.g. non-fissionable) nuclear bomb as part of some future "dooms-day scenario" is conceivable too. One can imagine without too much difficulty some groups turning to such weapons in some desperate gamble to stave-off either final military defeat or the imposition of a political settlement inimical to their parochial interests.

In terms of opportunities, the obsolescence of the control regimes erected during the cold war to prevent states from acquiring strategic nuclear materials and developing even a very basic nuclear weapons capability has been demonstrated by how the Aum sect—a non-state actor—set out to acquire or manufacture chemical, biological, and even nuclear weapons. Future efforts by other non-state actors in this realm

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130 That is, conflicts which have been intrinsically oriented towards the elimination or subjugation of entire rival ethnic, nationalist or religious groups (e.g., "ethnic cleansing") rather than the attainment of some negotiated power-sharing settlement between rival peoples who decide to "live happily ever-after" in reconstituted multinational/multi-ethnic/religion-tolerant states.
may well be abetted by the proliferation of fissile materials from the 
former-Soviet Union and the illicit market in nuclear materials that is 
surfacing in Eastern and Central Europe. Admittedly, while much of the 
material seen on offer as part of this "black market" cannot be 
classified as SNM (strategic nuclear material, that is suitable for the 
construction of a fissionable explosive device), such highly-toxic 
radioactive agents can potentially be easily paired with conventional 
exploratives and turned into a crude, non-fissionable atomic bomb (e.g., 
"dirty" bomb). Hence, in terms of capabilities, a combination 
fertilizer truck bomb together with radioactive material, for example, 
could not only have destroyed one of the World Trade Center's towers, 
but could have rendered a considerable chunk of prime real estate in one 
of the world's financial nerve centers indefinitely unusable because of 
radioactive contamination. The disruption to commerce that would be 
caused, the attendant publicity and enhanced coercive power of 
terrorists armed with such "dirty" bombs (which are arguably more 
credible threats than terrorist acquisition of actual fissile nuclear 
weapons) is disquieting. Such a device therefore could not only 
physically destroy a target, but contaminate the surrounding area. 

In this respect, it should be stressed that a limited terrorist 
attack involving not a WMD per se, but an unconventional chemical, 
biological or radiological weapon on a deliberately small scale could 
have disproportionately enormous consequences, generating unprecedented 
fear and alarm and thus serving the terrorists' purpose(s) just as well 
as a larger weapon or more ambitious attack with massive casualties 
could. Accordingly, the issue here may not be as much ruthless 
terrorist use of some WMD as calculated terrorist use of some 
unconventional weapon to achieve far-reaching psychological effects in a 
particular target audience. We may therefore be missing the point and 
side-stepping the real threat posed by terrorists in this regard. It 
will likely not be the destruction of an entire city proclaimed by 
fictional thriller-writers and government officials alike: but the far 
more deliberate and delicately planned use of a chemical, biological or 
radiological agent for more discreet purposes.
In sum, new combinations could produce new and deadlier adversaries. Terrorism today already reflects such a potentially lethal mixture: it is frequently perpetrated by "amateurs," motivated by religious enmity, blind hatred or a mix of individually idiosyncratic motivations, and in some instances is deliberately exploited or manipulated by "professional" terrorists and their state-sponsors. Hence, the increasing availability of fissile materials coupled with the relative ease with which chemical or biological warfare agents can be manufactured (however more problematically their effective dissemination could be achieved), suggests that terrorists possessing this constellation of characteristics would be the most likely and would have the least trouble—at least in respect of their motivation and mindset—crossing into the domain of employing such a weapon.

There is sometimes a thin line between prudence and panic. The challenge, therefore, in responding to the potential threat of terrorist use of chemical, biological, radiological and/or nuclear weapons is to craft a comprehensive defense that is not only both cost effective and appropriate to the threat, but sufficiently dynamic so that it can respond as effectively as possible under the most difficult circumstances. Because of the extreme consequences that potentially could result from an attack involving nuclear material or a chemical or biological agent, even the remotest likelihood of one cannot be completely dismissed as insignificant. The challenge, therefore, is to avoid overreaction while still preparing adequately for a threat that remains highly uncertain, but would nonetheless clearly have profound consequences.

POSTSCRIPT

"Since 1996, the number of weapons of mass destruction threats called in to fire fighters, police and the FBI has increased fivefold. The threat comes not just from conventional weapons, like the bomb used in Oklahoma City, but also from chemical weapons, like the nerve gas agent that killed 12, but injured thousands in Tokyo, in the subway, just four years ago; and even from biological weapons that could spread deadly disease before anyone even realized that attack has occurred."
"I have been stressing the importance of this issue, now, for some time. As I have said repeatedly, and I want to say again to you, I am not trying to put any American into a panic over this, but I am determined to see that we have a serious, deliberate, disciplined, long-term response to a legitimate potential threat to the lives and safety of the American people."

President Clinton

In recent months few issues have dominated the American national security agenda as WMD terrorism has. Concern with such exotic threats as bioterror, cyberterror and agroterror have become almost a national obsession as attention is intensely focused on the range of threats both real and imagined now perceived as confronting the country. New White House initiatives, for example, call for $105.5 million in Federal funds to be provided to fire fighters, other first responders and local communities to ensure that they have the "tools they need to defend against" these threats. This expenditure, moreover, is only part of the $1.4 billion that the Clinton Administration proposes to spend in fiscal year 2000 specifically on preparations against biological and chemical terrorism—out of a total anti-terrorism budget of some $2.8 billion. Such sums are justified and explained with rhetoric that often is couched in the certitude of inevitability rather than the reality of mere likelihood or admitted possibility. Indeed, it often seems as if the U.S. is feverishly attempting to over-compensate for years of neglect and dismissal. Meanwhile, this consideration has gone largely unnoticed or ignored as legislators and agency heads, governors and mayors, police commissioners and fire chiefs, military commanders and health officials compete with one another to ensure that they each get a

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hand into the burgeoning domestic terrorism preparedness/homeland defense pie.

"Nasty people and the ingredients for bioterrorism were all in place over a decade ago," one critic has argued. "Why now the drumbeating?." 133 Indeed, even if one concedes the cogency of these perceived threats today, two ancillary questions that similarly have yet to be asked are "how much is enough" to achieve the Clinton Administration's ambitious threat reduction efforts and upon what basis will the success or effectiveness of these measures be made? In the absence of hard answers to such critical questions and without a firm understanding of the threat based on a rigorous review of terrorist behavior and capabilities, the current efforts to address this problem may prove as ineffective as they are misplaced.

Finally, one of the most striking aspects of the current debate over the likelihood of terrorist use of WMD weapons is how wide the intellectual chasm separating the academic and policymaking communities over this issue has grown. The position of most academic terrorism analysts has been far more restrained and skeptical than many of their counterparts in government, the military, and law enforcement. Yet, their cautionary appraisals are either dismissed or have long ago been superseded by a policy process that is already plowing full-steam ahead. Further thought might therefore profitably be devoted to understanding why this bifurcation of views has emerged, and indeed, how these differences of opinion might be effectively harnessed to develop a response to the WMD terrorist threat that is at once as appropriate as it is effective.

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