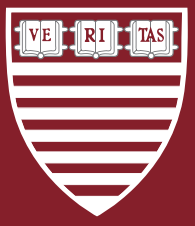
The Armageddon Test



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"I am become death, destroyer of worlds."
J.Robert Oppenheimer, quoting "Bagavadgita"
At first atomic bomb "Trinity" test site 1945 [1]

In 1946, Robert Oppenheimer, the father of the Manhattan project, was asked in a closed Senate hearing room "whether three or four men couldn't smuggle units of an [atomic] bomb into New York and blow up the whole city." Oppenheimer responded, "Of course it could be done, and people could destroy New York." When a startled senator then followed by asking, "What instrument would you use to detect an atomic bomb hidden somewhere in a city?" Oppenheimer quipped, "A screwdriver [to open each and every crate or suitcase]." There was no defense against nuclear terrorism–and he felt there never would be.[2]

The Dawn of Nuclear Terrorism

As Oppenheimer predicted, the 20th century was ultimately defined by the nuclear arms race. Yet somehow, we avoided nuclear holocaust, only to find ourselves staring into the abyss of the potential destruction of any city in the world with a terrorist nuclear bomb. Welcome to the 21st century. It has become man's destiny to confront the new threats posed by groups who aspire to wield the power and influence previously accorded only to states. In such a world, acquiring weapons of mass destruction has become, as Osama bin Ladin stated in 1998, his duty.[3]

The 9/11 attacks had exposed the asymmetric vulnerabilities of a highly interdependent global system; terrorism had become a strategic threat to world order. In this light, obtaining one nuclear weapon represents an opportunity for terrorists to achieve their most ambitious aims - with a single attack, they can change the world and control the course of history. To this end, terrorists have three pathways to a mushroom cloud – they can steal a bomb, attack a nuclear facility containing weapons or material, or construct a nuclear bomb. In so doing, a group can bypass many of the challenges in developing a nuclear weapon for a state. Terrorists can buy or steal the material required for a nuclear weapon, rather than try to produce it themselves. They need not pay attention to reliability, safety, and delivery of a weapon, assuming they would utilize suicide operatives to deliver it straight to the target. A nuclear plot would have a tiny foot print – probably not larger than Muhammed Atta's 9/11 attack – and once launched, such a plot would be very hard to find and neutralize before it reached fruition.

But nuclear terrorism is not inevitable. It is extremely difficult – but not impossible – for terrorists to successfully acquire a weapon or significant amounts of materials that only technologically sophisticated states have heretofore been able to produce. The Achilles heel of a nuclear plot is acquiring sufficient materials and know-how to construct a bomb. Preventing a nuclear attack is elusively simple: terrorists must be denied the capability they seek – no weapons-usable materials, no bomb.

Anatomy of Terrorist Nuclear Intent

Understanding the anatomy of terrorist nuclear intent is essential in order to successfully confront this threat. Two terrorist groups have learned many practical lessons on the difficulties of acquiring a nuclear bomb. The Japanese cult group Aum Shinrikyo and al Qaeda have examined all three pathways to a bomb over years of persistent efforts managed at the top of their respective organizations. Although the terrorist groups worked independently, they shared striking similarities in their thinking and approaches that provide valuable insight into the intrinsic nature of the nuclear terrorism threat.

Al Qaeda's founder Osama bin Ladin and Aum's guru Shogo Asahara never hid their interest in acquiring nuclear weapons. Both leaders shared their ambitions in order to establish the achievement of a nuclear capability as a top priority for their followers. They sought a nuclear weapon as a means of fulfilling their loftiest ambitions. They provided a rationale for unleashing weapons of mass destruction in their names. They recognized that by announcing their intentions well in advance of possessing the nuclear option, they might be able to harness a little of its power and mystique. An early and clear declaration of intent to use nuclear weapons was tantamount to announcing to the world that there were no limits in how far they and their followers were willing to go in their quest to destroy the global status quo.

The Battle Between Good and Evil

Shogo Asahara's dark vision of a Judeo-Freemason international conspiracy that ruled the world (with a little help from the CIA) served as justification for his prophecy that a nuclear Armageddon was imminent – and desirable. He chose the term from the book of Revelations in the New Testament of the Bible, because Armageddon is named as the site of the final confrontation between the forces of good and evil; according to the Bible, this battle will usher in the end of times.[4] The blind, self-styled cult leader taught that Armageddon was the greatest possible good that could happen to the world, because it would bring about the complete destruction of evil forces that was a precondition for a spiritual rebirth of the world.[5]

Osama bin Ladin's promise in a video dated September 2007 to "escalate the killing and fighting against you" – including the use of weapons of mass destruction – is justified on grounds of destroying an international conspiracy to control the world. The al Qaeda leader further stated: "The capitalist system seeks to turn the entire world into a fiefdom of the major corporations under the label of globalization in order to protect democracy." He argued that Republicans and Democrats ultimately serve the same malevolent master: "When (John F.) Kennedy took over the presidency and deviated from the general line of policy drawn up for the White House and wanted to stop this unjust (Vietnam) war, that angered the owners of the major corporations who were benefiting from its continuation. And so Kennedy was killed..."[6]

In a showdown between the forces of good and evil – real or imagined – prevailing notions of proportionality in the use of violence, indeed on the value of a human life, are

placed on a different scale. On such a scale, the use of weapons of mass destruction may no longer seem irrational, but rational and even necessary means of fulfilling God's plan for man; their use is contemplated as part of a cleansing and liberating process in the name of a greater good, even for the victims. For this purpose, the Aum cult perverted the Tibetan concept of "poa" to suggest that spiritually dead people were better off dead than alive – that killing someone who was against the cult prevented them from accumulating additional bad karma, and thus was to their benefit.[7] Osama bin Ladin justified making an exception to the Koran's clear admonition against the slaughter of innocents by judging all Americans of being guilty of serving the evils of capitalism, save those willing to convert to Islam: "Then you claim to be innocent!...But it is impossible for me to humor any of you in the arrogance and indifference you show for the lives of humans outside America....I invite you to embrace Islam, for the greatest mistake one can make in this world and one which is uncorrectable is to die while not surrendering to Allah, the Most High."[8]

Money Talks: Continuing Quest for the Bomb

In terms of fulfilling their nuclear intent, both groups began seeking nuclear capabilities in the same time frame, in the early 1990's, not long after the breakup of the Soviet Union. This was a time of greatest vulnerability concerning nuclear security; terrorists were rooting around for "loose nukes" long before the world was watching. Al Qaeda's deputy chief Ayman Zawahiri, who was briefly detained and released in Russia in 1996, stated in an interview in 2001: "If you have $30 million, go to the black market in central Asia...we purchased some suitcase bombs."[9] Senior Aum leader Kiyohide Hayakawa made eight trips to Russia in 1994 in search of nuclear technologies. His personal notebook included an entry entitled "Nuclear warhead. How much?" His shopping list included a nuclear bomb for $15 million.[10] Subsequent events and their continued efforts to obtain nuclear materials suggest that neither group was successful in their efforts to procure a "loose nuke" during this dangerous period of instability in the Former Soviet Union.

In spite of Osama bin Ladin's taunt to Americans that "money talks," al Qaeda appears to have concluded that money alone would not suffice to obtain a bomb.[11] So, they took the long view and mounted a systematic effort to procure sufficient weapons-usable materials in order to construct an improvised nuclear device (IND).[12] In pursuit of this goal, resources do not appear to have been a constraint. Osama bin Ladin approved two separate transactions to purchase alleged South African nuclear material in 1994, and three purported Russian nuclear devices in 2003, contingent on inspection and testing by nuclear specialists in both cases.[13] Although it is troubling that Osama bin Ladin's senior lieutenants who managed these transactions took precautions to avoid being scammed, and reportedly had access to "specialists," these procurement efforts appeared to have come to naught. The Aum cult took the patient approach one step further by investing in a state-like capability to enrich material for a bomb. In 1993, the cult spent some of its $1.5 billion in assets in a futile effort to build an infrastructure to mine and enrich uranium in Australia.[14]

Apparently frustrated in their efforts to obtain a bomb, the two groups' pathways to weapons of mass destruction diverged by the mid 1990's. Shogo Asahara reluctantly

abandoned his nuclear ambitions, opting instead to use sarin gas in the Tokyo subway in March 1995, in the vain hopes it would spark Armageddon. Had the group not made small miscalculations in brewing the toxic nerve agent, thousands may have died.[15] Ironically, the al Qaeda leadership faced a similar decision in early 2003, when al Qaeda associates requested permission to launch a cyanide gas attack in the New York City subway. When consulted on the impending attack, Ayman Zawahiri canceled the operation in favor of "something better."[16] Just a few months later, radical Saudi cleric Nasr al Fahd issued a religious ruling, or fatwa, in an attempt to legitimize the use of weapons of mass destruction against infidels.[17] A Middle East intelligence chief, long a skeptic of al Qaeda's nuclear efforts, acknowledged after reading the 26-page fatwa that he was finally convinced the nuclear threat was real. He cited two reasons for his change of heart: al Qaeda would not have gone to the lengths of issuing a fatwa unless they had concrete plans to use a nuclear weapon, for which religious justification was required; and it proved the group's intent was nuclear – they were not considering a "dirty bomb" – or radiological dispersal device – because the fatwa sought to justify a mass casualty attack using a nuclear device.[18]

While the Aum cult faded from the scene, al Qaeda's nuclear intent remains firm. The group's leadership continues to express a strong interest in nuclear weapons, and in having a deterrent to the use of these super bombs against them.[19] They appear to be biding their time, waiting for opportunity to knock. That is worrisome, because time favors intent – with enough patience, terrorists just might get lucky.

The Black Market Problem

"We can get you anything you need – at the best price and quality – all you need to do for us is one favor. Personally deliver one piece of merchandise – it is not contraband – to a customer in New York City for one million dollars commission – and we will never bother you again."[20]

Organized Crime Boss, Speaking to a CIA Office
Former Soviet Union March, 1992

It was a Stradivarius violin – one of a kind. Nuclear weapons usable materials are also one of a kind, because they only have one practical purpose – to be used in a bomb. In Las Vegas terms, the odds of a breakdown in a nuclear security meltdown favor placing one's bets on the availability of nuclear weapons usable material on the black market. In fact, openly available empirical data provides a starting point to assess the threat posed by loose weapons usable material. Since 1993, there have been nineteen publicized incidents involving the seizures of small amounts of weapons usable material. In all of these cases, the seizures were serendipitous. The material was not reported missing in the facility of origin. In most cases, the customers were never identified. In some cases, not all of the material was recovered.[21] These incidents prove that materials usable in a bomb are available.

Terrorists are aware of the opportunity the black market presents for them to potentially construct a crude nuclear device. But they are also wary of being scammed with useless material, or of being caught up in "sting" operations by intelligence and law enforcement

services. Over years of trial and error, smugglers and terrorist groups have become more sophisticated in their dealings on the black market. In some recent cases, organized crime involvement has been confirmed. Insiders in the nuclear establishment have also been implicated in the trafficking of materials, usually motivated by profit.[22]

Al Qaeda's behavior suggests that they have tried to avoid the vagaries and risks of the black market by dealing with trusted brokers and insiders, to the extent that was possible. The group relied on utilizing agents and support networks with extremist credentials for nuclear and biological weapons programs. For example, al Qaeda carefully vetted and recruited two key agents before bringing them in to lead a sensitive program to develop anthrax.[23] Al Qaeda seniors restricted access to nuclear planning to trusted cadre only. Moreover, in an effort to develop access to nuclear technologies, the group tried, reportedly without success, to discreetly contact the rogue nuclear supplier network run by the father of the Pakistani nuclear weapons program, Abdul Qadeer Khan. Al Qaeda had a bit more success consulting with another Pakistani "WMD for hire" network called Umma-Tameer-E-Nau (UTN), which offered its services to Osama bin Ladin before the 9/11 attacks. Fortunately, this relationship appears to have been caught and neutralized before it got off the ground.[24]

Sizing Up the Intelligence Response to Nuclear Terrorism

How much nuclear material has leaked, and is it in the hands of terrorists, in storage somewhere, or still in circulation? No one knows for sure. But the task of cleaning up the nuclear black market amounts to an Armageddon test for global intelligence. The standard for success is unforgiving: all nuclear material must be recovered before it finds its way into an improvised nuclear device. For if there ever was loose nuclear material in significant quantities, if there is material for sale today, or if such material will become available in the future, the black market will end up in the history books as a cause of the first nuclear attack since World War II.

Leaving the nuclear black market to the traditional structures and methodologies of the intelligence community is problematic, at best. Intelligence success in traditional fields of endeavor has not necessarily translated into success against WMD terrorism. Continuing seizures of weapons-usable material present one clear warning sign that international intelligence and law enforcement entities are unable to reliably find loose and unaccounted nuclear material.[25] Another worrisome sign is intelligence's diminishing capacity to provide reliable foresight and early warning to policymakers on emerging threats. Clearly, some of the challenges in providing foresight and warning are due to the inherently unpredictable nature of certain kinds of rare events. However, it is also true that the intelligence community is not very good at stopping something from happening that has never happened before. This typically occurs because analysts did not recognize an emerging threat and hence collection was not ramped up soon enough.

Broader intelligence trends may herald more surprises in the future. In the US and abroad, intelligence is becoming more reactive, and less strategic in terms of its scope and projection of influence. There is little room for anticipatory, proactive operational

activity in an action-driven culture that tends to set priorities according to what happens to be in the "in box" that day. But in order to effectively combat nuclear terrorism, the modus operandi – the methods of intelligence work – must prize great patience and meticulous attention to detail. For example, tenuous leads must be pursued in an incessant search for nuclear plots that may not even exist. The significance of the barest of leads of an impending attack must be understood – which might be analogous to grasping the anomaly of terrorists training to fly jumbo jets, but not to land them.[26] Providing foresight and warning on nuclear threats requires a commitment to prove-the-negative every day, and to do so with a sense of urgency. Such an approach is only possible if there is strong leadership interest in combating nuclear terrorism. The level of leadership commitment can be gauged by the answer to one simple question: have the best and brightest with all the right skills been assigned to work on this problem, and for as long as it takes?

Creating the A Team

"Make everything as simple as possible, but no simpler."
-Albert Einstein

In terms of crafting an effective intelligence strategy, the good news is that the nuclear terrorism problem does not require intelligence community reorganization, new laws, or substantial new investments. Throwing money and resources at the problem is not the answer in any event, because that approach will not eliminate the threat of WMD terrorism. Why? Terrorists favor the use of asymmetric weapons because they cancel out many of the strengths of overwhelming military and economic superiority. The terrorist's advantage of choosing various forms of asymmetric warfare, including the use of airplanes as weapons in the 9/11 attacks, is that such means of attack create a sort of "Thermopylae effect," whereby the enemy's vastly superior forces are channeled to the point they become moot, or even a weakness. Thus, the key to neutralizing the terrorist desire to fight on such grounds is to recognize and eliminate the liabilities associated with great power and size. This can be accomplished by ensuring that terrorist groups are unable to exploit the inefficiencies and lack of focus of large bureaucracies, the gaps in information sharing between organizations and seams in coordination procedures. The quintessential terrorism challenge is to be more clever than the enemy, to be more creative than he is, to anticipate where he plans to be, and to be there before he gets there.

A bold search for a proactive response leads one logically to consider the creation of a custom made, fully integrated, interagency team of intelligence, law enforcement, military, and scientific specialists who would bear overall responsibility for the nuclear terrorism threat. Let's imagine the creation of such an "A team" – what would such a unit look like? The A team should consist of the best and brightest, brought together in one place, under one flag, and exclusively dedicated to one mission, i.e., ensuring that the worst case scenario of a terrorist nuclear attack never becomes reality. The team should be very small, nimble, and agile. It should have a "flat" organizational structure and enjoy direct access to senior levels of the US government. The team should have a mandate to draw on the capabilities and resources of all sixteen members of the US

intelligence community, as appropriate. They should conduct liaison cooperation with foreign partners, utilizing established channels for this purpose. The team should be granted special access to all the information and tools they need to do their job. Such a ground breaking concept in the modern intelligence world might one day be compared to the way that the US military special operations forces have transformed the way wars are fought – and won.

There are many advantages to creating a specialized nuclear terrorism unit of this sort. The A team would be eminently qualified to take a fresh look at the nuclear terrorism problem. It would have the advantage of being able to independently review and zero base the current intelligence effort. The team would be able to more objectively assess the totality of US government and international efforts, in a way that would be difficult if not impossible for individual agencies. For this task, the team's full range of specialties and perspectives would in all likelihood lead to new and possible startling initiatives. Creativity – which is always hard to capture – would be enhanced because team members would presumably not feel bound by the cultures and biases of their home agencies.

Arguably, the greatest strength of the A team concept would lie in the application of a skunkworks, problem solving approach that is particularly conducive to tackling the challenges of the nuclear terrorism problem. For example, unlike the predictable sequence of events that is required for the development of a nuclear weapons program for a state, terrorist nuclear plots are non-linear; the observables and signatures of an impending attack fall into non-linear patterns. Along these lines, procurement of nuclear material might be the last obstacle to be overcome, rather than the first action on the terrorist's check list. Terrorists are able to complete the nuclear puzzle in an opportunistic process, in which the pieces (visible indications of an attack) may belong to one puzzle (plot) – or to different puzzles. The difficulty of establishing the lineage of a plot is one of the hardest tasks of combating nuclear terrorism, because success requires an exceptional degree of continuity of effort and expertise.

Responding to Low Probability – High Impact Threats

It is not necessary to believe that nuclear terrorism is likely to happen in order to take the threat seriously. It is only necessary to believe that it is not impossible, that there is a one percent possibility that terrorists can launch a successful nuclear attack. Adopting the proper risk-management principles for such a precedent-setting event requires an appreciation of the implications of failure, and a determination to avoid them at all costs. It requires having a full awareness of the strategic consequences of a single nuclear event. It means having a keen understanding that a robust, aggressive, and integrated policy and intelligence response is essential, even for such a low-probability threat. Effective risk management also entails thinking through the complexities of leading the kind of unprecedented international cooperation that assure not just national security, but global security. Developing a collective security consciousness demands an acknowledgement that there is no such thing as nuclear security, and thus, a fatal lapse of security at any site in any country would affect all; there can be no other choice than to work more closely on such matters, even if this cooperation touches on each state's most sensitive, sovereign

interests. At the end of the day, all states should be able to give a reassuring answer to their citizens on one question: has everything possible been done on an urgent basis to lock up all nuclear weapons and material to a Fort Knox standard – and can everything be recovered that may no longer be in the vault?

Today, the nuclear terrorism threat is oft equated to Osama bin Ladin and his Islamic militant associates. It would be a mistake, however, to view the threat in such a narrow prism. Nuclear terrorism is a growing threat that is fueled by broader trends of the 21st century, including emerging patterns in extremism, implications of globalization and modernization, and energy and environmental challenges. Consequently, in the years to come, new terrorist groups will no doubt seek to harness the nuclear genie for its game changing powers. And so, Oppenheimer's nuclear genie will lurk close by, in its ever-mutating forms, appearing when we least expect. Considering the dangers of such a malevolent force, and its enduring character, it would be unforgivable if failure stems from a lack of effort. It would be a far kinder fate to overestimate the prospect of a terrorist cloud, than to regret what should have been done, on the day after.

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