Non-State Actor Terrorist Groups (NSATG) represent a significant WMD proliferation threat because they are not necessarily bound by any legal or moral bounds against the acquisition or use of WMD. Their goals are mainly political, but they aim to influence their intended target through propaganda, fear and intimidation. A defense-in-depth strategy that combines prevention and preemption with homeland protection and civil defense would introduce uncertainty into terrorist calculations and deter them from acquiring or using WMD. Among other factors, prevention of WMD attacks involves the use of soft power to prevent radicalization and extremism, the restructuring of U.S. foreign policy to limit interference in foreign countries, and the coordination of all source intelligence with effective law enforcement at home and abroad to disrupt NSATG networks and destroy their capabilities. However, if prevention fails, mitigating the effects of a WMD attack becomes critical to enhance public awareness and reduce uncertainty.
TERRORISM: NON-STATE ACTORS AND THE POTENTIAL USE OF WEAPONS OF MASS DESTRUCTION

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EXECUTIVE SUMMARY

Non-State Actor Terrorist Groups (NSATGs) represent a significant Weapons of Mass Destruction (WMD) proliferation threat because they are not necessarily hindered by any legal or moral bounds against the acquisition or use of WMD. Their goals are mainly political, but they aim to influence their intended target through propaganda, fear, and intimidation. Safehavens around the world afford these groups the opportunity to develop a sustained weapon program outside the reach of state and international authorities.

Motivation for terrorist WMD use can vary greatly depending on a group’s affiliation or ideology. However, the groups most likely to acquire and use WMD are those with the most serious grievances against the U.S., as they view WMD as an attractive asymmetric force multiplier that could challenge the global dominance of the U.S. These groups could either obtain WMD devices from rogue or unstable states, or assemble a rudimentary indigenous device. Possible targets on U.S. soil vary greatly from symbolic infrastructures to vital economic nodes. Types of WMD attack can also vary from limited-scale dirty bomb detonations to simultaneous WMD attacks on vital economic, political and symbolic targets across the U.S. Fundamentally though, NSATGs would use WMD terrorism as a form of psychological warfare to spread fear and anxiety among Americans in order to achieve their political objective.

A defense-in-depth strategy that combines prevention and preemption with homeland protection and civil defense would introduce uncertainty into terrorist calculations and deter them from acquiring or using WMD. Among other measures, prevention of WMD attacks involves the use of soft power to prevent radicalization and extremism, the restructuring of U.S. foreign policy to limit interference in foreign countries, and the coordination of all source intelligence with effective law enforcement at home and abroad to disrupt NSATG networks and destroy their capabilities. However, if prevention fails, mitigating the effects of a WMD attack becomes critical. Countermeasures from hardening targets to the institution of a civil defense program would mitigate the consequences of an attack and enhance public awareness by reducing uncertainty.
“We’re in a world in which the possibility of terrorism, married up with technology, could make us very, very sorry that we didn’t act.”

Condoleezza Rice, Former U.S. Secretary of State

INTRODUCTION

Current and historical international agreements to reduce or control the proliferation of Weapons of Mass Destruction (WMD) deal with state actors. These agreements, in addition to moral accountability and the threat of like-retaliation, represent a credible deterrent against state use of WMD against other states. Non-State Actor Terrorist Groups (NSATGs) do not necessarily abide by international agreements, and may not be hindered by any legal or even moral bounds against the acquisition or use of WMD. As such, NSATGs represent a significant WMD proliferation threat to U.S. national security.

The national security implications for a NSATG WMD attack against the United States are grave and require the establishment of an overarching national strategy that challenges established paradigms to mitigate this potential threat. Such an overarching strategy would involve defense-in-depth measures that combine prevention and preemption with homeland protection and civil defense. The potential types of WMD threats and their prospect of employment are reviewed to better recognize the desired preventative measures to avert such threats, and to implement the preferred actions if or when prevention fails.
DEFINITIONS

The Department of Defense’s (DoD) definition of WMD is:

Chemical, biological, radiological, or nuclear weapons capable of a high order of destruction or causing mass casualties and exclude the means of transporting or propelling the weapon where such means is a separable and divisible part from the weapon.¹

DoD’s definition of terrorism is:

The unlawful use of violence or threat of violence to instill fear and coerce governments or societies. Terrorism is often motivated by religious, political, or other ideological beliefs and committed in the pursuit of goals that are usually political.²

BACKGROUND

The definition of terrorism implies a motivation to inflict mass casualties by any means. To successfully carry out a WMD attack, a NSATG has to possess the technical and financial capabilities to acquire WMD devices and skills to weaponize such materials.³ NSATGs have several options for obtaining WMD capability, three of which are most plausible: acquire a WMD device from a rogue or unstable state through an established NSATG network or in coordination with established criminal groups, assemble an indigenous device from materials readily available on the black market, or enhance an acquired rudimentary WMD device in order to achieve greater destruction effects.⁴

Rogue states like North Korea or unstable countries like Pakistan are possible sources for an already fabricated WMD device. Iran, which is in the final stage of building its own nuclear program, could be another WMD source for NSATGs.
NSATGs could also acquire the services of religiously, ideologically, or just financially motivated WMD scientists from Pakistan, Iran, the former Soviet Union, or South America. These scientists could have the technical knowhow to either assemble a rudimentary WMD device, such as a dirty bomb, or enhance an already fabricated device.

Possible targets for NSATGs can be wide ranging from symbolic infrastructures to vital economic nodes. NSATGs are most likely to attempt a spectacular attack against symbolic targets to achieve the maximum propaganda effect around the world, while instilling fear and panic on U.S. soil. Such a WMD attack could inflict a psychological wound that would be more dramatic than the 9/11 attacks.

Types of WMD attacks can also vary greatly. NSATGs could conduct a conventional attack against a nuclear plant on U.S. soil that would cause the reactor to “melt down, releasing hundreds of millions of curries of radioactivity into the surrounding environment, hundreds of times that released by the Hiroshima and Nagasaki atomic bombs.” Another type of WMD attack would detonate one or a series of dirty bombs in urban areas or vital economic nodes to maximize the potential disruption of the U.S. economy. A dirty bomb, which is a crude radiological weapon that combines radioactive material with conventional explosives, can contaminate a limited area around the blast with radioactive material. The actual attack itself may not cause massive casualties, but the psychological effect would cause mass economic disruption and instill panic and hysteria among the population.

Similarly, a NSATG could conduct a limited-scale chemical or biological attack on critical transportation nodes, like the Sarin attack on the Tokyo subway in 1995. The end result could inflict hundreds if not thousands of casualties and instill fear and panic in society at large. WMD hoaxes could equally achieve similar results of mass hysteria and fear.
NSATGs could use WMD terrorism as a form of psychological warfare to spread fear and anxiety among the people. In essence, the psychological effect of a WMD terrorist attack may be more successful in instilling fear and over-reaction in society than the terrorist act itself. NSATGs are probably counting on U.S. over-reaction as part of their overall strategy. U.S. Over-reaction, like a retaliation attack against the NSATG support base in regions around the world, could enhance the NSATG’s image as the protector of such regions’ population and portray the U.S. as the ultimate aggressor. This would be mostly true in case of an American over-reaction to a limited but effective NSATG WMD attack on U.S. soil.

DEFENSE-IN-DEPTH

To prevent a terrorist WMD detonation on U.S. soil, the United States should establish an overarching defense-in-depth strategy that combines prevention and preemption with homeland protection and civil defense. Prevention includes measures such as intelligence and law enforcement, international cooperation to address environmental factors that lead to the growth of NSATGs, the use of soft power to prevent radicalization and extremism, the restructuring of U.S. foreign policy to limit interference in foreign countries, and perception management. Preemption includes measures like obstruction of NSATG logistics and financing and preemptive military strikes. With the addition of homeland protection and civil defense, such a robust layered defense-in-depth strategy would introduce uncertainty into terrorist calculations and deter them from acquiring or using WMD.
PREVENTATIVE MEASURES

INTELLIGENCE AND LAW ENFORCEMENT

The intelligence community and law enforcement agencies are best suited to achieve early warning of potential WMD terrorism and prevention of an actual attack. Early warning helps identify the threat before it happens, and is best achieved through intelligence, which must provide accurate, timely and relevant knowledge on NSATGs and their environment in order to be effective. The goal of intelligence is to reduce uncertainty and create a comprehensive picture of the enemy. In essence, intelligence provides insight to possible NSATG courses of action by identifying their capabilities and intent.

That is not an easy task, considering the significant differences in cultural and group values of different NSATGs around the world. But to know and understand a NSATG, it is important to appreciate the way a group perceives its own capabilities because that perception will have the greatest influence on its actions. Therefore, it is imperative to understand the mindset of a NSATG in order to transform what may seem as random and irrational activity into describable and semi-predictable acts.

A fundamental challenge in intelligence analysis is the enormous task of sorting through what could be at times massive amounts of data and information, which encumbers intelligence analysts from accurately analyzing and anticipating threats all the time. But that challenge can be mitigated through an effective all-source intelligence process that incorporates all the different types of intelligence, especially Human Intelligence (HUMINT) and Signals Intelligence.

Clausewitz once said: "War is the realm of uncertainty... A sensitive and discriminating judgment is called for; a skilled intelligence to scent out the truth." This uncertainty can be best
diminished by leveraging the strength of varied cultures in the U.S. and recruiting intelligence
analysts and operatives among them accordingly. These seldom tapped assets can be force
multipliers in the counterterrorism effort for the intelligence community and law enforcement
agencies alike.

In essence, law enforcement agencies are a critical component of homeland defense and
play a significant role in the prevention process because they are exceptionally positioned to
recognize the threat environment in their local communities.\textsuperscript{14} From a HUMINT perspective,
local law enforcement have established access to a knowledge base of most local criminal
elements and networks, and can best identify and seek out unusual occurrences in their areas of
operation. Additionally, most local law enforcement agencies, including the Federal Bureau of
Investigation, the Drug Enforcement Agency, the Bureau of Alcohol, Tobacco and Firearms, the
Department of Homeland Security (DHS), and local police departments have agents trained in
counterterrorism who can identify and deal with suspicious terrorist activities.

It is important to note that both law enforcement agencies and the Intelligence
Community have to expand their collaboration efforts to better address the potential threat of
NSATG WMD terrorism. As the NSATG threat continues to evolve, the relationship between
law enforcement and intelligence becomes crucial for early warning and prevention.

ENVIRONMENTAL FACTORS

While intelligence and law enforcement are crucial for prevention and early warning, the
best way to defeat terrorism would be to understand its roots and examine the environmental
factors that lead to it growth. One particular factor is the lack of local government authority in
lawless regions around the world, which creates a security vacuum and safehaven where
NSATGs can thrive and operate freely. Such lawless regions could be failed states, or just enclaves with minimum state control which contain people with the necessary skills and technological know-how to build or assemble rudimentary WMD. In essence, NSATGs have to operate outside the reach of local and international authorities to successfully develop and sustain a WMD program because of its complexity.\textsuperscript{15}

The United States cannot unilaterally prevent WMD development in lawless regions around the world. Thus, the need for increased international cooperation is vital to help states reassert sovereignty over their own territories. The United States can use its tremendous influence within the United Nations Security Council and other member organizations to institute policies and resolutions that would help states mitigate the reasons that lead to the formation of lawless regions, and thereby eliminate NSATG safehavens.

\textbf{ATTRIBUTES AND MOTIVATION}

Whereas depriving NSATGs from operating freely in safehavens is important, it could be argued that the most effective prevention method is to recognize strategies that would essentially be effective to prevent radicalization and extremism in the first place.\textsuperscript{16} Recognizing and partially addressing NSATG grievances may dissuade such groups from aspiring to seek WMD.\textsuperscript{17} Factors that motivate a NSATG to possess and use WMD can be wide ranging depending on a group’s affiliation or ideology. The following are some possible motivation factors: attain increased prestige by outdoing the destruction effects of the 9/11 attacks, obtain political bargaining or blackmail tool against the U.S., gain better recruitment opportunities in its support base, accomplish a religious duty to inflict harm on the enemy, achieve political advantage in a region of focus, or illicit revenge for perceived U.S. wrongdoing.\textsuperscript{18}
NSATGs that are most likely to acquire and use WMD are those with the most serious grievances against the United States. First among them are religiously motivated terrorist groups such as Al Qa’ida and its affiliates. These groups equate the U.S. and its western allies to the European crusaders who were perceived as plundering Islamic lands during the twelfth and thirteenth century. Consequently, Al Qa’ida and other NSATGs could view the possession and use of WMD against the U.S. as the best means to redress the perceived wrongdoings and achieve parity with the U.S.

On the other hand, not all religiously motivated NSATGs are equally motivated to possess and use WMD. In fact, many such groups have political components and aspirations that are geographically based, and depend on financial backing from communities that may not share the same radical views. Inherently though, most NSATGs likely view the possession and use of WMD as an attractive asymmetric force multiplier that would challenge the global dominance of the U.S.

When the United States emerged as a global superpower in the aftermath of World War II, its foreign policy focused on containing and defeating communism during the Cold War with the former Soviet Union. However, one of the consequences of this foreign policy led the United States to constantly interfere in the internal affairs of other nations and thus alienate numerous groups and segments of the population who may not have been necessarily anti-American. This interference continues today, albeit under different justifications, with the end result of increased anti-American sentiments and hatred.

The United States can alleviate the underpinning of Anti-American hatred and mitigate the grievances that would lead a NSATG to seek and possess WMD by restructuring U.S. foreign policy and limiting interference in the internal affairs of other nations. Non-interference
can become the prime directive of U.S. foreign policy, and a well-balanced foreign policy can effectively protect American economic interests around the world. Such a reinvigorated policy would challenge existing paradigms that have dominated the U.S. national security strategy since the end of World War II, but is nevertheless essential to address the root of anti-American hatred around the world.

PERCEPTION MANAGEMENT

As a restructured US foreign policy addresses the motivation and grievances of NSATGs, it is also important to reduce these groups' ability to promote their goals. The goals of NSATGs are normally political and aim to influence the intended target through propaganda, fear, and intimidation. Religious and other ideological NSATGs believe their cause is just and place great importance on managing perceptions and expanding popular support among their constituencies. In essence, perception management is crucial for NSATGs, as they spread fear and terror among their enemy population, while catering to their support base. Any potential WMD attack does not have to be successful, but the mere act itself would be powerful enough to disrupt the social, economical, and political process in the United States or other allied countries around the world.

Attacks against U.S. Allies could actually delegitimize fragile allied governments and create the perception that they are powerless to stop the NSATG movement. Al Qa’ida propaganda has been especially effective in Yemen, Pakistan, and in North Africa, depicting it as the defender of Islamic values against corrupt local governments while attacking American interests there. Thus, information warfare would be an essential component of any NSATG potential WMD attack on U.S. soil or U.S. interests on foreign soil.
The U.S. State Department and DoD can coordinate the conduct of information warfare to counter NSATGs’ propaganda efforts, especially since perception management is crucial for these groups. Such efforts could include: influencing terrorist operatives to defect and expose NSATG WMD efforts, openly exposing rogue states and other potential foreign WMD suppliers, and targeting NSATGs’ base of support to encourage informers and infuse moral revulsion among their constituency about the use of such weapons.22

Additionally, the United States has an influential economic and diplomatic presence around the world, and can aggressively leverage its influence to positively manage local perceptions of U.S. foreign policy and discredit NSATGs among their support base. American Non-Government Organizations operate in countries all over the world and are especially capable of positively influencing local populace perceptions through their work. American businesses and factories employ thousands of people in countries around the world, and contribute to the economic well-being of such countries. In essence, the State Department can aggressively leverage the work of organizations, businesses, and private U.S. citizens to promote a positive view of the United States and its foreign policy in local media, while simultaneously highlighting the negative and destructive conduct of NSATGs.

PREEMPTIVE MEASURES

Deterrence through pre-emptive military strikes may be inevitable to deal with a potential NSATG WMD threat. Military pre-emptive strikes should only be used as a last resort, because they are not always successful in rooting out the cause that may lead these groups to conduct such attacks in the first place. In the end, if a group’s grievance is not addressed, then the group will eventually re-emerge and attempt to engage in similar behavior in the future.
An important preemption measure involves choking NSATG supplies and fund-raising, which can vary from voluntary contributions to their cause, to extortion, blackmail, and other criminal activities. The development and acquisition of WMD can be very expensive, and NSATG will need a reliable and stable source of funding to continue their efforts. Intelligence needs to play a primary role in identifying the source of NSATG funding and the means for their logistics, and the U.S. should use all available legal means to choke them off.

In addition to choking NSATG funding, the U.S. should hold rogue states accountable against the proliferation of WMD material. States such as Iran and North Korea have to clearly understand the repercussions of supplying NSATGs with WMD stockpiles. Of note, Iran, which has several types of WMD and is in the advanced stage of acquiring nuclear weapons, currently trains and arms its Hizballah surrogates in Lebanon with conventional weapons. If Iran decides to escalate its armament to Hizballah to include WMD, then the U.S. could employ all available means to contain the threat and hold Iran accountable.

Furthermore, the U.S. State Department should expand cooperation with foreign states through international agreements to secure existing WMD stockpiles and prevent them from falling into the hands of a NSATG. These states usually suffer from high levels of corruption, lawlessness, and porous borders that would enable a NSATG to easily acquire and smuggle WMD material. Hence, U.S. efforts to stabilize and secure these states' WMD stockpiles become a crucial component of counterterrorism preemption.

For preemption to be effective, the United States needs to successfully disrupt and destroy NSATG networks. Global NSATGs probably requires some type of local support to successfully conduct a WMD attack on U.S. soil. This local support could vary from local sympathizers to disenfranchised groups. Networking serves as an efficient way for a global
NSATG to conduct local WMD attacks by communicating, sharing ideas, and receiving support from other NSATGs in the network.\textsuperscript{24} This exchange allows the global NSATG to quickly adapt its terror tactics to a local environment, and receive crucial logistical, ideological, and moral support to conduct its WMD attacks on U.S. soil or U.S. interests worldwide.

\textbf{HOMELAND PROTECTION}

Mitigation is critical for disaster preparedness, especially if and when prevention fails. Mitigation is best defined as: "the ability to reduce the consequences of an event to lives and property."\textsuperscript{25} One of DHS' main goals is to prepare for catastrophic events; however, it currently has limited mitigation activities prepared for a potential WMD terrorist attack.\textsuperscript{26}

There are hundreds of critical symbolic U.S. infrastructures, especially financial and political, that remain the possible targets of interest for a potential NSATG WMD attack. The uncertainty surrounding the potential location and magnitude of a WMD attack makes it difficult to assign limited government resources to mitigate the effects of such an attack on every potential target. In this age of limited funding and resources, it is more efficient to use the same resources to prepare for various hazards than to have numerous plans for each hazard.\textsuperscript{27} Accordingly, coordination and cooperation between the different U.S. Government departments and agencies would be critical to the effective use of those limited resources.

The U.S. Government has opted to protect some of its vital infrastructure by hardening them.\textsuperscript{28} This is especially true for vulnerable nuclear power plants and other types of military infrastructure. Hardening potential targets can be somewhat effective, because prior experience with conventional terrorist attacks indicate that NSATGs will most likely aim to attack vulnerable symbolic targets to minimize the risk of exposure to their operation. However,
hardening potential targets is an expensive undertaking that could only provide limited protection and would not prevent a determined terrorist attack. Instituting redundancy for key government and private services to mitigate the consequences of a potential NSATG WMD attack, in coordination with the private sector, would be more efficient and cost effective than hardening potential targets. 29

CIVIL DEFENSE

The U.S. should institute a civil defense program that expands on successful measures used during the Cold War with the former Soviet Union. The term civil defense has actually been replaced in recent years by emergency management and homeland security, but DHS has limited its attempts to reinstitute the fundamental aspects of civil defense, especially public education. It would therefore be important to involve the population in survival and mitigation drills that enhance public awareness and reduce potential mass panic and hysteria in the event of a WMD attack.

Critical nodes at the local community level that can enhance public awareness are civilian volunteer programs. However, such programs have serious issues with the quality of formalized civilian response and planning. 30 One issue is that many responders are usually double or triple counted because they are dual-hatted with other emergency response roles. For example, a National Guard soldier can also be a volunteer firefighter and a member of his local community emergency response team. As such, he would be counted as three people, basically as one available person by each of these organizations. 31

Furthermore, local volunteer programs have limited standards for training and vetting volunteers, and there may be legal issues associated with using some civilians, such as doctors,
in situations where formal standards of care cannot be maintained.\textsuperscript{32} A possible solution would be for the state or federal government to issue such standards, including identification cards, to boost community resilience at the local level.\textsuperscript{33}

These problems are only a microcosm of the bigger issues at stake for domestic preparedness and community response. Most state and local authorities do not have planners to prepare for community emergency response. In fact, planning at the local level is tacit because it has to change to adapt to the scenario and the availability of emergency responders.\textsuperscript{34}

DoD, and more specifically NORTHCOM, is not readily familiar with the gaps and vulnerabilities at the state and local level. More importantly, NORTHCOM is not familiar with the real capacities and capabilities of state and local response programs.\textsuperscript{35,36} To ensure the success of the civil defense program, U.S. military, federal, state, and local authorities need to communicate and jointly plan for domestic preparedness and community response. One recommendation would be for NORTHCOM to immediately make their planners available to jointly coordinate emergency response planning with state and local communities, and hence learn about operating realities at those levels before the onset of a real emergency.

CONCLUSION

The national security implications for a NSATG WMD attack against the United States are grave and require the establishment of an overarching national strategy that challenges established paradigms to mitigate this potential threat. Restructuring U.S. foreign policy to limit interference in foreign countries will be difficult to implement because of organizational resistance to change. National policy has trumpeted U.S. expansion and intervention overseas since the Spanish American war in 1898. But most organizations usually resist major
transformation unless they are faced with an existential threat. Such a threat may exist today, and it is critical to re-examine and re-evaluate U.S. foreign policy to mitigate and prevent a potential foreseen but preventable tragedy.

Preventative measures alone will not succeed unless they are complemented with other preemptive and defensive measures. In essence, an overarching defense-in-depth strategy is required to disrupt NSATG networks and destroy their capabilities. Such a strategy would also introduce uncertainty into terrorist calculations, deter them from acquiring or using WMD, and prevent them from disrupting America's social, financial, and political security.

2 Joint Publication 1-02, 342.
4 Blair, 195.
7 Joshua Sinai, Forecasting Terrorists' Likelihood to embark on “Conventional” to CBRN Warfare, pp. 151.
11 MCDP 2, 35.
12 Kerry Fosher, PhD Cultural Anthropologist, interview conducted on 20 March 2009.
14 Murch and Tamsett, 255.
16 Blum et al., 137.
17 Blum et al., 136.
19 Blum et al., 136.
21 Ackerman and Tamsett, xiii.
22 Sinai, 152.
27 Roberts, 314.
28 Roberts, 317.
29 Roberts, 319.
30 Personal communication with Dr. Kerry Fosher, Cultural Anthropologist and Director of Research at the Marine Corps Center for Advanced Operational Culture Learning, 3 February 2012.
31 Personal communication with Dr. Kerry Fosher, 3 February 2012.
32 Personal communication with Dr. Kerry Fosher, 3 February 2012.
33 Personal communication with Dr. Kerry Fosher, 3 February 2012.
34 Personal communication with Dr. Kerry Fosher, 3 February 2012.
35 Personal communication with Dr. Kerry Fosher, 3 February 2012.
36 Personal communication with Commander Daniel Stone, Homeland Defense Plans Branch Chief, and LtCdr Derek Beatty, Civil Support Planner, NORTHCOM, 30 April 2012.
BIBLIOGRAPHY


Patterns of Global Terrorism – State Department, http://www.state.gov/s/ct/rls/pgtrpt/


RAND, http://www.rand.org/

