

Limited Nuclear War in the 21st Century

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The concept of limited nuclear war originated in the bipolar security environment of the Cold War as a potential alternative to a full-scale nuclear war between the United States and the Soviet Union. With the Cold War now in the past, how does the concept of limited nuclear war fit into the global security challenges of the twenty-first century? In a multi-polar global society populated by a growing number of nuclear states it is becoming increasingly important to consider the possibility of the use of one or more nuclear weapons during a conflict between regional adversaries. Any use of a nuclear weapon, anywhere in the world, would have strategic implications for the United States, and the rest of the world. This paper will revisit the concept of limited nuclear war and identify the implications that such a conflict could have for international security in the twenty-first century.

Introduction

The 2010 Nuclear Posture Review Report declares that “the threat of global nuclear war has become remote, but the risk of nuclear attack has increased.”² It is becoming increasingly likely that a nuclear weapon will be detonated during a conflict sometime in the future. While the 2010 NPR identifies nuclear terrorism as the most immediate threat facing the United States today, a nuclear terrorist attack is not the only situation in which the United States could find itself engaged in a nuclear conflict. Another possible scenario is the use of one or more nuclear weapons by a regional adversary during a crisis or conflict.

Today’s global security environment includes the eight declared nuclear-weapons states, Israel, and states such as Iran, which is known, or believed, to be seeking nuclear weapons. Nuclear weapons are viewed by some countries as a potential source of global influence and a valuable deterrent against aggression by other states. As long as some countries possess nuclear weapons and others do not, an asymmetry will exist within the international system, which will contribute to global insecurity. It has become increasingly difficult to control the spread of nuclear weapons technology as technical barriers to mastering the fuel cycle and designing viable weapons have eroded over time.³ Several decades ago it was assumed that very few countries knew how to acquire nuclear weapons, but today it has been estimated that as many as 35-40 countries have the technical knowledge needed to pursue a nuclear weapons program.⁴ And the number is growing. A

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² Nuclear Posture Review Report, April 2010, p. iv.

³ Yudin, Yury. “Multilateralization of the Nuclear Fuel Cycle: Assessing the Existing Proposals.” United Nations Institute for Disarmament Research, UNIDIR/2009/4, p. 7.

⁴ ElBaradei, Mohamed. “Towards a Safer World.” Op-Ed. *The Economist*, October 16, 2003.

recent *Foreign Policy* article identified five countries, (Burma, Bangladesh, Kazakhstan, Venezuela and the United Arab Emirates) that are striving to join the nuclear club.⁵ The increasing number of nuclear players is leading to the greater probability that nuclear weapons will be used in anger at some time in the future.

Nuclear-armed regional adversaries differ significantly from larger nuclear powers such as Russia or China, and traditional means of deterrence may be of limited utility against them. The possibility exists that the United States, or one of its allies or partners, could become engaged in a conflict with a nuclear-armed regional adversary. Any use of a nuclear weapon, anywhere in the world, would have strategic implications for the United States. It is therefore essential that we consider the possibility at the present time so that plans and preparations can be made for such an occurrence in the future.

Limited Nuclear War

Limited nuclear war is defined as “war in which each side exercises restraint in the use of nuclear weapons, employing only a limited number of weapons on selected targets.”⁶ Selected targets could include enemy forces, command and control centers or particular sites of strategic importance. Early advocates of limited nuclear war believed that such a war could be both controllable and winnable. It was further thought that the limited use of nuclear weapons in a small, regional war could lead to a swift political resolution of the conflict. Opponents of the limited nuclear war concept argued that such a war would not necessarily be controllable and could easily escalate into a full-scale nuclear war.

It is presumed that the type of nuclear weapons most likely to be employed during a limited nuclear war would be non-strategic weapons because the use of larger, strategic weapons would be disproportionate with the objectives of a limited war. Non-strategic nuclear weapons are relatively small-yield and limited-range weapons designed for use within a theater of operations rather than for intercontinental, or strategic, employment.⁷ Non-strategic nuclear weapons are also referred to as tactical weapons due to their intended use on a limited scale. The tactical use of nuclear weapons has been defined as “the use of nuclear weapons by land, sea, or air forces against opposing forces, supporting installations or facilities, in support of operations that contribute to the accomplishment of a military mission of limited scope, or in support of the military commander’s scheme of maneuver, usually limited to the area of military operations.”⁸

⁵ Shualy, Mordchai. “The Future Nuclear Powers You Should Be Worried About.” October 20, 2009, http://www.foreignpolicy.com/articles/2009/10/20/the_future_nuclear_powers_you_should_be_worried_about?page=0,0

⁶ Larsen, Jeff A. and James M. Smith. *Historical Dictionary of Arms Control and Disarmament*. (Maryland: Scarecrow Press, Inc. 2005), p. 128.

⁷ Larsen and Smith, p. 150.

⁸ Woolf, Amy. “Nonstrategic Nuclear Weapons.” CRS Report 705700 RL32572, August 10, 2009.

Limited Nuclear War in the 20th Century

A substantial amount of thought was given to the concept of limited war during the Cold War, particularly in the 1950s and 60s. It was recognized that the invention and proliferation of nuclear weapons had substantially changed the nature of war. Four main themes were discussed regarding the limitation of war.⁹ First, it was recognized that a limited war required limited objectives. Henry Kissinger and Robert Osgood both characterized limited war as being conducted for the purpose of achieving limited political objectives. Second, there was debate concerning the limiting of resources applied to a limited war. It was thought that a war fought for limited objectives should not expend unlimited quantities of resources. The third theme involved the role of bargaining with the adversary to determine established limits for a limited war. The opposing sides would need to agree to the limits by which they would pursue their respective objectives. The fourth theme involved the correlation between limited war as an instrument and the objective of achieving the goals of arms control.

In *Limited War: The Challenge to American Strategy*,¹⁰ Robert Osgood established five fundamental requirements for a policy of limited war: well-defined, limited objectives; a willingness to limit the means employed; appropriate military tactics, techniques and weapons; sufficient economic resources; and an unwavering national will. Osgood further identified seven categories of potential limitation: geographical area; weapons; targets; manpower; number of belligerents; duration and intensity. Of these categories, the first three (geography, weaponry and targets) are of particular significance. “Without these three kinds of limitations, it is difficult to imagine a war remaining limited.”¹¹

There were, of course, critics of the concept of limited war who argued that the fighting of a limited war would significantly increase the likelihood of escalation to total war. It is important to note that during the era in which the concept of limited nuclear war was initially considered, there were only a small number of countries that had acquired nuclear weapons. During the Cold War the Soviet Union was the principal adversary of the United States and the opponent whom the United States believed was most likely to stage a nuclear attack on the United States or its allies. The limited war scenarios that were being considered at the time generally involved a confrontation with the Soviet Union or one of its allies in a localized, regional setting. The Yom Kippur war of 1973 is an example of a crisis between allies of the United States and the Soviet Union that, had it proceeded differently, may have had the potential of escalating to a nuclear confrontation at the superpower level. It was essential during the Cold War to be concerned about the possibility of a limited nuclear conflict with the Soviet Union, or one of its allies, escalating out of control and resulting in a nuclear war.

⁹ Raghavan, V.R. “Limited War and Nuclear Escalation in South Asia.” *The Nonproliferation Review*, Fall-Winter 2001.

¹⁰ Osgood, Robert E. *Limited War: The Challenge to American Strategy*. Chicago, Il: The University of Chicago Press, 1957.

¹¹ Osgood, p. 243.

21st Century Security Environment

Today, in the post-Cold War era, the likelihood of an all-out nuclear war between the United States and Russia is relatively minor. While Russia still possesses a significant number of nuclear weapons, it is unlikely that it would deliberately initiate a nuclear war with the United States. However, Russia is no longer the only country in possession of nuclear weapons that is, or could potentially become, adversarial to the United States. The nuclear weapons club has now grown to include China, France, India, Israel, North Korea, Pakistan, Russia, the United Kingdom, and the United States. Iran is not far behind, and it is believed that they are within reach of the capability to develop nuclear weapons, should they choose to do so.¹²

The need to plan for fighting a limited nuclear war against Russia, while it should not be ruled out completely, is no longer the most pressing contingency for U.S. policy planners to think about. The possibility now exists that the United States or one of its allies could find itself engaged in a regional conflict with a nuclear-armed regional adversary. Some scenarios could include: the United States is drawn into a nuclear conflict with North Korea; Israel contemplates the use of nuclear weapons during a regional war in the Middle East; or a nuclear incident occurs between India and Pakistan.

“Regional adversaries,” for the purposes of this paper, shall describe states whose influence is generally limited to their geographical region; whose policies and interests are divergent from those of the United States and its security partners; and whose military forces are limited in size or conventional capabilities. These are not countries along the lines of Russia or China, but rather smaller states such as Iran or North Korea. Given that regional adversaries are smaller states, they generally will not possess hundreds of deliverable nuclear weapons, but rather an arsenal consisting of a small number of survivable weapons. Regional adversaries, at least in the near term, will likely not possess long-range delivery capabilities, rather short- and medium-range ballistic missiles capable of threatening targets within their own geographical region.

Some important questions to consider are: Why do states seek nuclear weapons? Under what conditions might a state consider employing nuclear weapons during a conflict? There are, of course, many reasons why states may seek to obtain nuclear weapons. The possession of nuclear weapons could deter military threats or actual attacks by adversaries; they could redress a military inferiority vis-à-vis neighboring states that have nuclear weapons; they could enhance national prestige and influence; or they could ensure the survival of a regime in the event of a war.¹³ Nuclear weapons could also be used to dominate an active battlefield, bring about a victory, or serve as a catalyst to incite a reaction from another party.

¹² National Intelligence Estimate, November 2007, “Iran: Nuclear Intentions and Capabilities”.

¹³ Ochmanek, David and Lowell H. Schwartz. “The Challenge of Nuclear-Armed Regional Adversaries.” RAND Corporation, 2008.

In the case of Iran, one can see how many of these motivations could potentially come into play. Iran could pursue a nuclear-weapons capability in order to deter potential military attacks from Israel or other perceived enemies. A nuclear-armed Iran would be on a more level playing field in relation to other nuclear-armed states in the region such as Israel, India and Pakistan. Further, a nuclear-armed Iran would enjoy enhanced national prestige and influence within the Middle East, which it could potentially use to dominate other states within the region. Conversely, a nuclear-armed Iran could find itself further isolated from other states within the region and the international community at large. Neighboring states may feel threatened by Iran's nuclear capability and seek to develop nuclear weapons of their own.

There are four specific objectives that nuclear-armed regional adversaries might seek to achieve through the use of nuclear weapons.¹⁴ They might seek to deter the United States from intervening in a conflict or projecting military power into the region by threatening escalation. If the United States is not deterred by threats of escalation, the adversary might consider using its nuclear weapons to limit or defeat U.S. military operations. The adversary might seek to intimidate U.S. allies or friends within the region, or to split regional political coalitions apart. Certainly the adversary would attempt to limit U.S. objectives in the confrontation and try to dissuade the United States from seeking to impose regime change. For authoritarian or despotic leaders, nuclear weapons may be seen as a means of survival. These types of leaders may be preoccupied with the survival not just of their regimes, but of their own personal survival. Regional adversaries facing a confrontation with the United States would know beyond any doubt that they faced an opponent with vastly superior military forces and resources. Adversarial leaders may not be prepared to face the disastrous consequences of a military defeat, particularly one that would result in their removal from power. Such leaders may feel that their only hope for survival would be to attempt to stave off, or at least delay, a defeat by employing a nuclear weapon against U.S. forces. It is also possible that an adversary, knowing that it cannot and will not prevail, may wish to "go out with a bang"; or they may wish to be remembered as the leader who stood up to the United States by utilizing nuclear weapons.

A number of factors exist that could serve as catalysts for future nuclear use. Latent conflicts within a regional setting could ignite and nuclear threats may be signaled by one or both sides in order to influence the opposing states' actions. A nuclear state on the verge of losing a conventional war might employ its nuclear weapons in order to avert defeat. Small nuclear states which harbor feelings of isolation (such as North Korea) could perceive the actions of others as threatening and therefore be intimidated into employing nuclear weapons as a means to protect their interests.

Traditional means of deterrence may not work the same way between small states as they did with the United States and the Soviet Union during the Cold War. Strategic discourse between two small nuclear-armed states may be lacking, thus elevating the prospect for the collapse of deterrence at the regional level. Small

¹⁴ Ochmanek and Schwartz, p. 37.

nuclear states may have flawed or incomplete intelligence regarding their relative positions in a conflict. A misperception regarding an adversary's intentions could compel a country to conduct a preemptive strike on the opponent's nuclear arsenal or conventional military forces. There is also the possibility that a small nuclear-armed state may have a deficient command and control structure, increasing the risk of an accidental or unauthorized nuclear launch.¹⁵

The use of nuclear weapons in a regional setting could support a range of objectives including coercion, war termination, regime preservation or even revenge.¹⁶ Some states could view the use of nuclear weapons as a means-of-last-resort, while others may view them as the only viable means to alter the status quo or to remedy a deteriorating regional security situation.¹⁷ In some circumstances a state may view the use of nuclear weapons as the best, or the "least bad,"¹⁸ option available to them.

The fear of regime change may be a compelling reason for a nuclear-armed regional adversary to consider employing nuclear weapons during a conflict. For leaders who are concerned about their ability to remain in power in the event of a war with a superiorly armed adversary, nuclear weapons could be viewed as a valuable tool to have in their arsenal. "If an attack by a U.S.-led coalition would pose a significant threat to your regime and your nation cannot afford conventional forces capable of deterring or defeating such an attack, you may regard nuclear weapons as the answer."¹⁹ One can be certain that the overthrow of the Taliban in 2001 and Saddam Hussein in 2003 are still very fresh, particularly in the minds of the Iranian and North Korean regimes. These regimes are also aware that they have been identified as security threats to the United States.

Potential Future Scenarios

India and Pakistan

The delicate situation between India and Pakistan is one that must be considered when planning for the possibility of a limited nuclear war. While tensions between the two countries seem to have eased in recent years, the fact remains that deep rifts exist in the relationship between these two nuclear-armed regional adversaries. Perhaps the largest point of contention between India and Pakistan is the status of Kashmir. Kashmir has been a source of continuing conflict between the two states since the Partition of India in 1947. Several wars and smaller armed conflicts have been fought over Kashmir, including: the Indo-Pakistan War of 1947, the Indo-Pakistan War of 1965, the Kashmir insurgency of 1986-1987, and the Indo-Pakistan War of 1999 which is more commonly known as the Kargil War.

¹⁵ Kahan, Jerome. "Nuclear Threats from Small States." Strategic Studies Institute; U.S. Army War College, 1994.

¹⁶ Bernstein, Paul I., John P. Caves Jr., and John F. Reichart. "The Future Nuclear Landscape." Center for the Study of Weapons of Mass Destruction; Occasional Paper 5. National Defense University Press, 2007.

¹⁷ Bernstein, Caves Jr., and Reichart.

¹⁸ Ochmanek and Schwartz, p. 49.

¹⁹ Ochmanek and Schwartz, p. 16-17.

It is clear that India and Pakistan are deeply divided over the state of Kashmir. After decades of rivalry and armed conflict, it is unlikely that either side will back down any time soon. The fact that both India and Pakistan are nuclear-armed nations complicates the matter further. Years of tensions and an environment of distrust and suspicion have created a potentially volatile situation. It is conceivable that a future conflict between the two countries could rapidly escalate to high levels of violence, increasing the risk of a nuclear confrontation. One particular concern is that a terrorist attack carried out in India, perhaps by a group with real or suspected ties to Pakistan's ISI, could spark a crisis between the two states which could potentially escalate to the nuclear level. A nuclear conflict between India and Pakistan would put the United States in a particularly difficult situation given the fact that the United States has economic and security-related ties with both countries.

Iran

It is generally accepted that Iran is in the process of mastering technologies that would provide it with the capacity to develop nuclear weapons. It is important to consider the implications that a nuclear-armed Iran would have on the security of the Middle East. If Iran were to become a nuclear-weapons state, how would its neighboring states react? Would it lead to greater proliferation in the region? Would Iran use its nuclear weapons strictly for deterrence, or would they be used to intimidate or assault Iran's regional adversaries? Given Iran's adversarial stance towards the United States, what kind of threat would it pose to U.S. military forces in the region?

It is conceivable that a nuclear-armed Iran could present a significant challenge to stability within the region; more openly assert its hegemonic ambitions; intimidate its neighbors; and/or use its possession of nuclear weapons to leverage its position within the global oil economy.²⁰ A nuclear-armed Iran could attempt to press the governments of the Cooperation Council for the Arab States of the Gulf into making concessions over the rights to offshore oil and gas fields; or it could try to coerce other OPEC members into giving it greater influence in the determination of oil-production quotas.²¹ If Iran has aspirations to become a dominant actor within the Persian Gulf region (or beyond), being known as a nuclear-armed state could give it significant advantages.

North Korea

North Korea is diplomatically and economically isolated from the rest of the world. This is a lonely position to be in, particularly for a leader such as Kim Jong Il who is known for his arrogance and acute paranoia. It is not surprising that a head of state who harbors extreme concerns regarding internal and external threats to his reign would seek to possess powerful weapons which could be used to intimidate his enemies at home and abroad.

²⁰ Bernstein, Caves Jr. and Reichart, P. 7.

²¹ Ochmanek and Schwartz, p. 35-36.

In October 2006 North Korea conducted a successful underground nuclear test, ending any doubt as to whether or not Pyongyang had succeeded in developing nuclear weapons. Now that it has demonstrated that it possesses both nuclear weapons and rudimentary ballistic missile delivery capabilities, North Korea believes that it has the capacity to negotiate with the international community from a position of strength and arrogance. The North Korean regime likely believes that it can effectively apply its nuclear weapons possession as a means of leverage for extracting economic assistance from the United States, South Korea, China and Japan.

As recently as July 2010 North Korea has vocalized its willingness to resort to a nuclear response to joint U.S./South Korean military exercises conducted in the Yellow Sea.²² A nuclear “response” could mean a nuclear test designed to remind the international community of its nuclear capabilities, or it could mean the actual use of a nuclear weapon against the assets of a foreign nation. The United States and South Korea must consider the possibility that North Korea could integrate its nuclear weapons into its war planning as North Korea may view its nuclear weapons as effective instruments for extortion, coercion and regime survival.²³

In light of the adversarial behavior of Iran and North Korea towards the United States in the past, and their current policies, it is not difficult to conceive of ways in which the United States or its allies or partners could find themselves in a nuclear conflict with one of those states. One potential scenario could be a nuclear conflict between Iran and Israel. Israel could elect to conduct a preemptive strike against one or more of Iran’s nuclear facilities in order to prevent Iran from acquiring a weapons capability, or to destroy a nascent arsenal. Alternatively, if Iran succeeded in acquiring nuclear weapons it may choose to attack Israel directly, or provide weapons to a non-state actor or terrorist organization that might subsequently attempt to carry out an attack on Israel. Another possibility is that North Korea may choose to utilize one of its nuclear weapons against a regional enemy, or even U.S. assets within the region. While these scenarios may seem far-fetched, they are not outside the realm of possibility, and it is therefore necessary to consider how the United States may become involved such situations and to plan for how it could respond.

Escalation Control

If the United States were to find itself engaged in a limited nuclear conflict, it would certainly seek to prevent the conflict from escalating to a larger scale.²⁴ Escalation is the process by which a conflict is raised to higher levels of violence, or by which a conflict is widened to involve an expanded geographical scope. This implies upward movement along a spectrum of conflict towards increasingly dangerous levels. In an armed conflict escalation may involve the movement from conventional weapons to

²² “North Korea warns of nuclear ‘sacred war’.” BBC News, Asia-Pacific, July 24, 2010. <http://www.bbc.co.uk/news/world-asia-pacific-10748148?print=true>

²³ Bernstein, Caves Jr. and Reichart, p. 5.

²⁴ Larsen and Smith, p. 84.

non-strategic, or even strategic, nuclear weapons.²⁵ Herman Kahn describes the concept of escalation as

each side may take certain positive steps either to bring the other side to the bargaining table or to apply pressure during the negotiations. Sometimes these pressures tend to decrease with time or with a temporary solution of the problem at hand. At other times there is a tendency for each side to counter the other pressure with a somewhat stronger one of its own. This increasing pressure step by step is called 'escalation'.²⁶

When neither side is willing to back down, tensions continue to build and more profound levels of violence become possible.

In Kahn's writings on escalation he developed a spectrum of conflict which he refers to as an Escalation Ladder. The ladder consists of sixteen "rungs" which represent the various levels of tension during a conflict. The higher one climbs on the ladder, the more intense the conflict and the closer one is likely to get to large-scale violence. All conflicts are unique and it is not required that the rungs of the ladder be climbed in any specific order. Some rungs may be skipped so that a conflict rapidly reaches high levels of violence, or in a less severe conflict, the upper rungs may never be reached at all.

Herman Kahn's Escalation Ladder²⁷

Sub-crisis disagreement – The difference of opinion that arises between two antagonists.

Crisis – Both sides feel that unless some current issues are resolved more rungs of the Ladder will be climbed. Vague or explicit threats may be made that one will go to extreme measures rather than back down.

Political, diplomatic and economic gestures - An adversary might recall an ambassador, refuse to facilitate negotiation on other issues, make overtures to the other side's enemies, denounce a treaty, etc.

Show of force – Reserve forces may be mobilized or provocative exercises carried out.

Modest mobilization – The accompaniment of a show of force with a modest mobilization, indicating that one is willing, if necessary, to call on more force.

²⁵ Larsen and Smith, p. 84-85.

²⁶ Kahn, Herman. *Thinking About the Unthinkable*. Horizon Press New York, 1962, p. 185

²⁷ Kahn, Herman, p. 185-203.

Acts of violence – Acts of violence or other incidents intended to harass, confuse, exhaust, violate, discredit, frighten or otherwise harm or weaken the opponent may be manufactured.

Limited military confrontations – One or both sides may go into combat alert status. It may seem desirable to demonstrate that a limited war or even an unthinkable all-out war is becoming thinkable, even probable.

Intense crisis – The crisis is now ready to enter an intense stage. Decision makers are announcing “unless you back down, we will go to war.”

Limited evacuation – The partial evacuation of cities.

Super-ready status – Demonstrates ones resolve and is intended to weaken the resolve of the other side.

Limited War – A small-scale war waged with conventional weapons.

Spectacular show of force – Involves the actual use of major weapons.

Controlled non-local war – Major weapons are used to target “sanitary” targets such as ships at sea or isolated military bases.

Complete evacuation – Each side, believing that it is on the verge of an all-out war, evacuates major cities.

Some kind of all-out war – Various degrees of damage could result from all-out war. Either side could back down after waging a limited response, or it could be a protracted war with serious amounts of destruction done to each side.

Aftermath – The result of the crisis could be increased cooperation or increased competition.

There are a number of paths that the escalation of a conflict might follow. Vertical escalation involves movement up or down the escalation ladder. Upward vertical escalation would indicate an increase in tensions and progress towards higher levels of violence, whereas downward movement on the escalation ladder would signify de-escalation and a lessening of tensions. Horizontal escalation refers to a widening of the conflict, not by moving upward on the escalation ladder, but rather by introducing additional players to the conflict or by broadening the geographical area affected. “Issues of horizontal escalation include the impact of opening or

threatening to open a second or third front, as well as the issue of involving additional nations.”²⁸

De-escalation refers to the climbing down, or even off of, the escalation ladder. This is usually accomplished by the resolution of the dispute. Unilateral measures can be taken by one side to relax tensions to the point where the dispute can either be resolved or left unresolved but less contentious, such as with an agreement to disagree. Some typical gestures to induce de-escalation include: reversing a previous escalatory move; settling an alternate dispute; freeing prisoners; or making conciliatory statements.²⁹

There are two principal ways of managing escalation during a conflict: escalation control and escalation dominance. Escalation control is designed to create pauses between the rungs on the escalation ladder and is dependent upon adversary reciprocity. The adversary must be willing to step back and negotiate as opposed to taking the next step upward on the ladder. Escalation dominance involves one party dominating the escalation process. In this case one must take active steps to dissuade or prevent the adversary from climbing to higher rungs on the ladder.

Lessons / Questions for further study

It is vital for United States’ policy planners to consider the possibility of the United States being drawn into a limited nuclear war and additionally, to understand the objectives, strategies, perspectives, past actions and pronouncements of nuclear-armed regional adversaries. Nuclear-armed regional adversaries will behave differently under diverse situations. It is impossible to predict how nuclear-armed states will act in future conflicts. Because the future cannot be predicted, there is a need for the United States to maintain a range of capabilities that can be utilized to respond to a variety of diverse scenarios.

Is limited nuclear war feasible? There are critics who would argue that it is not possible and that it is a waste of valuable time, energy and talent to even consider it. For example, some would say that if North Korea deployed a single nuclear weapon against South Korea, Japan or U.S. assets within the region that they would promptly be “wiped off of the map.” But would such an extreme retaliation be an appropriate response to a single nuclear detonation? Surely, a harsh response would be called for, but the complete annihilation of the state of North Korea by way of a barrage of strategic nuclear weapons would probably be excessive. A more appropriate response might be a counter-force strike against North Korean military assets or nuclear facilities with non-strategic nuclear weapons. It may even be possible that such strikes could be successfully carried out with today’s formidable conventional weapons without the need to resort to tactical nuclear weapons.

²⁸ Schwabe, William. “Roles and Phases in Superpower Deterrence and Escalation Control.” A RAND Note, N-3158-DAG, 1990; p. vi.

²⁹ Kahn, Herman, p. 203.

There are many diplomatic and military tools that can be effectively utilized to prevent or manage the intensification of a conflict. Even in the extreme case of the United States employing nuclear weapons against a regional adversary, it would not necessarily result in mutually assured destruction. For the foreseeable future, any nuclear-armed regional adversary that the United States might face would have a limited number of nuclear weapons which they could deploy, and short- to medium-range delivery systems with which to do so. They would not have the capability to threaten the existence of the United States and it would not be necessary for the United States to completely obliterate the aggressor in order to prevail in the conflict.

Is escalation control possible in a limited nuclear war? While it may not be easy, it is possible to control escalation in a limited nuclear war as long as the commitment is made, and kept, to pursue limited objectives. Full-scale nuclear war is not in any state's interest. While some adversaries may believe that they have little or no choice but to utilize nuclear weapons, there are means that can be used to dissuade or prevent them from doing so. If dissuasion or prevention efforts fail and a nuclear weapon is detonated, it may still be possible to control or dominate the escalation of the conflict so that it does not reach the ultimate level of violence that is a full-scale nuclear war.

How should the United States prepare for a potential limited nuclear war? It is essential that the United States maintain the right mix of capabilities to address the range of security challenges that it may face. U.S. leaders must have a range of retaliatory options available to them in a crisis, including those that give them the ability to respond to nuclear attacks with either conventional or nuclear strikes, and to retaliate with strikes against an adversary's nuclear forces rather than its cities so as to minimize civilian casualties.³⁰ The United States need not "tie its hands behind its back" to accomplish limited objectives in a war against a nuclear-armed regional adversary. The United States has a quiver full of effective arrows, both conventional and nuclear, which it can draw from in the event of a conflict with a nuclear-armed regional adversary. The United States maintains, and should continue to maintain, an assortment of nuclear options ranging from small, low-yield tactical warheads to high-yield, long-range intercontinental ballistic missiles that it can choose from when considering what level of credible retaliation is appropriate for any given conflict.

Conclusion

Any future detonation of a nuclear weapon in anger, even a relatively small one, would be a colossal event wrought with significant implications for the future of global security. It is important to take the possibility of a limited nuclear war seriously. Planning must focus on acquiring an improved understanding of the conditions under which various nuclear-armed states might employ their weapons. While it would be preferable to prevent or deter a limited nuclear war from occurring, it is essential to have contingency plans and capabilities in place should

³⁰ Lieber, Keir A. and Daryl G. Press. "The Nukes We Need: Preserving the American Deterrent." *Foreign Affairs* vol. 88, no. 6 (2009).

prevention efforts fail. If those efforts do fail it will be in the United State's interest to have already made preparations to respond to the situation and to deter any potential follow-on nuclear use. Shrewd policy planning should presume that the future use of nuclear weapons is becoming more likely and plans must be laid out as to how the United States can most effectively respond to such an event.