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THE U.S. NUCLEAR ARSENAL: TOO BIG TO DETER?
CORE COURSE V ESSAY

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"Revenge takes forty years . . . if not my son, then the son of my son. Someday Palestinians will have missiles that will reach New York."

Abu Abbas

"My dear minister, it is all well and good that Russia is currently democratic. But we must plan for what Russia might be fifty years from now."

Woodrow Wilson

"We no longer have the luxury of having a threat to plan for."

General Colin Powell

"Much as we might wish otherwise, nuclear weapons cannot be disinvented; their existence, or potential existence, will continue."

Paul H. Nitze

"There is no justifiable role for nuclear weapons . . . nuclear retaliation to nuclear attack is morally indefensible."

Theodore H. Taylor

Introduction

These are the times that try men's souls . . . especially old cold war warriors trying to make sense of the current world situation and potential threats to the security of the United States.

The Cold War is over, and most impartial analysts would say the west, and the United States in particular, won the war. During the forty-five odd years of that struggle, the two major powers spent themselves dizzy acquiring weapons of previously unimaginable lethality and destructive power. But the abrupt end of the major power stand off which ended with the Soviet Union crumbling like a sand castle built at the low tide mark finds the United

States holding a basket full of eggs that can not be re-colored for Easter. These eggs currently come in various sizes, but they all may be too large to be of any creditable use in the future.

It is the premise of this paper that the current nuclear arsenal of the United States may be too much bang for the buck to serve as a deterrent force in the future. The missions envisioned for these weapons in the past resulted in warheads so large in their destructive power that a future president may feel that to employ them would violate the proportionality dictum of the "Just in War" principles.

If the United States is to retain a creditable nuclear deterrent in the future a new family of what has been called "micro-nukes" (warheads of up to ten tons may be required) "mini-nukes" (one hundred tons) and "tiny-nukes" (one thousand tons) could be required to provide a nuclear force creditable for use. This assumes that the future holds a Russia and China that do not drive the world political scene into a second cold war. Working against a future for these new weapons may be a desire on the part of our national leadership to quietly conduct what has been called a unilateral nuclear disarmament program and will certainly not entertain the development of these new weapons.

The Good Old Daze

The malevolent genie of nuclear weapons was uncorked in the New Mexico desert in 1945 and has coexisted, albeit uneasily, with mankind ever since. Summoned to do the bidding of the United States but twice, it has hovered as a spectral presence effecting the development of the international policy of the United States and the Union of Soviet Socialist Republics, the two major cold war players. The perceived need for nuclear weapons drove four other nation states to acquire and publicly acknowledge their possession during the cold war: The United Kingdom (1952), France (1960), China (1964), and India (1974). It is widely believed that Israel and Pakistan possess a nuclear

arsenal and that South Africa may have made an attempt to develop an indigenous nuclear weapon.

During the entire nuclear weapons - cold war era, American presidents had to deal with the stark reality of the conundrum of the age: how to prepare for the possibility of nuclear war while acknowledging that the end result would be calamitous beyond humankind's ability to comprehend. The hard facts of the times required the development of a policy to meet the issue of the unthinkable. As the strategy evolved from Truman to Bush, from Massive Retaliation to Flexible Response, the reasons for the possession of nuclear weapons and the policy supporting the guidance to our force² was predicated upon the following objectives:

- Maintaining effective deterrence so that a potential aggressor understood clearly that the price to be paid for a nuclear attack upon the territory of the United States or its allies or friends would far exceed any benefits to be gained by such an attack.
- Serve a contributory role in the deterrence of non-nuclear attacks upon, or attempted coercion of, the United States or its allies and friends.
- Contribute to stability throughout the full range of international political and diplomatic periods.
- Provide the capability, deterrence failing, to respond through a wide range of options to an aggressor's first strike, resulting in a war termination on terms acceptable to the United States with damage limited to the minimal amount possible under the circumstances.
- Discouraging the continued proliferation of nuclear weapons and modern delivery systems.
- Negotiating effective verifiable reductions and restrictions on nuclear forces.
- Develop and maintain the safety, security, and positive command and control of the United States nuclear forces.

This is in no way to imply the free world was of one mind as to the righteousness of the objectives or even of the possession of nuclear weapons.

As the Theodore Taylor quote at the beginning highlights, the retaliation option has critics on moral grounds. Debate about the ethics of nuclear deterrence gained an unusually high level of attention the late 1980's in the NATO countries. Polling data reviews by Thomas Graham dating back to the mid-1950's indicates a United States public "consensus" (defined by Graham as sixty to sixty-nine percent of the people) existed that supported the use of nuclear weapons only in response to nuclear attacks upon United States troops overseas or against the United States homeland.⁴

In Western Europe, a review of polling data by Stephen Szabo found that since the mid-1950's the public has refused to support the use of nuclear weapons in response to a non-nuclear attack, even if that was "the only way to stop an enemy at the threshold instead of being overrun." Few in the 1980's would support the first use of nuclear weapons against a conventional attack but a majority would use them to respond to a Soviet first use.⁵

If David Yost is correct that at the close of the cold war, a certain delegitimization of nuclear deterrence in the view of the policy elites was being articulated,⁶ what does this foretell for the post cold war era? Does this emerging expression of a reduction in confidence in the "reliability and safety of nuclear deterrence arrangements and in a lessened certainty about the practical prudence, strategic necessity, and/or moral legitimacy"⁷ of posing nuclear threats to adversaries signal a sea change that will wash away the ability to use the nuclear weapons in our arsenal?

Too Much Bang for the Buck?

Pierre Hassner has stated that there is a general phenomenon of downgrading the acceptability of nuclear deterrence in every NATO country, with the exception of France, based on the belief that living with the bomb is not acceptable in the long run by public opinion in democratic countries.⁸ Yost contends that "concerns about public opinion seem to have become more important determinants of national and alliance policy. Since the late 1970's

governments appear to have devoted more attention to public preferences and possible public reactions in the framing of their policies."⁹

If this growing "delegitimization" of nuclear deterrence, and by extension nuclear weapons, could occur during an era when there was a supposedly self-evident danger from the Soviet Union, what does the future hold for the nuclear arsenal? What unifying themes can carry the water if, as General Powell pointed out, we are running out of demons and villains?

As a tentative first step the Clinton Administration has commenced a Nuclear Posture Review. It is envisioned that this review, the first of its kind since the late 1970's, will attempt to examine the full range of issues associated with the United States nuclear posture, policy, doctrine, force structure, operations, command and control, safety and security, and infrastructure. The contention is that this review will form the foundation that supports our nuclear force posture in the post cold war era.¹⁰

The basic question to be asked, the answer to which should have direct impact on all of the policy, doctrine, force structure, et al, discussions is who is threat? Whom do we envision is lurking out in the alleyways of the new world order that requires deterrence, and nuclear deterrence at that?

First, we must face facts. For the foreseeable future, nuclear weapons are going to be part of the world landscape. They may be an open pit mine in the landscape, but they will be there. Paul C. Warnke may ridicule the usefulness of "missionless missiles"¹¹ and Theodore B. Taylor may wish to "just unplug 'em,"¹² but it would be Pollyannish to believe the United States can formulate any credible foreign policy that fails to take into account the ongoing role that the aura of nuclear weapons will play in the collective minds of the world's political leaders and trouble makers. French Defense Minister Jacques Mellick said in justification of France's nuclear modernization plans in February 1992 that "the world has entered the nuclear era and it's not near leaving it."

In the near to middle term, we will remain focused on the arsenal of the former Soviet Union, now Russia. As warheads are withdrawn from the former

republics into Russia, that nation will accumulate a stockpile of some 32,000 warheads. Of these 15,000 are active, while 17,000 await disassembly.¹³ Under START II, full implementation of which appears to be seven to ten years away, Russia will retain a sizeable nuclear arsenal of approximately 3,500 warheads. President Wilson's words of 1916 still have a ring of truth today and bear remembering.

Another potential concern may prove to be China, although the threat China poses today seems to be less severe than previously envisioned by some since her strategic arsenal is reportedly smaller than past estimates held. However, an emergent China, economically powerful, coupled to her current form of leadership, may evolve into the world power that the old Soviet Union could not - a communist, expansionist state with the money to put where her mouth is.

Therefore it seems prudent to retain our arsenal as a form of "nuclear insurance", in the words of Paul H. Nitze.¹⁴ For as badly as deterrence appeared to many as a policy, it worked. Throughout the cold war, Europe saw many moments of crisis that in pre-nuclear times probably would have led to war. We should use our arsenal in the future to leverage continued changes in the stockpiles of the major nuclear players. The goal would be arsenals that are smaller, less threatening, safer, and more secure. These changes would have to start with the United States and Russia, since these nations will each individually retain more nuclear weapons than the remainder of the world combined, even under SALT II. China has long denied any attempt to match the old Soviet or United States arsenal and has stated that she only desired the "ability to destroy just a few Soviet cities". A Chinese foreign ministry spokesman has stated that any cuts in his country's arsenal would await further, larger reductions in United States and Russian forces.¹⁶ Based on reported stockpile sizes outside of Russia and the United States, another near halving from the SALT II levels to two thousand would still allow both nations to retain arsenals as large as all of the rest of the world's combined.

What happens fifteen years from now if China and Russia develop in a manner that they are much like the France of today? If they evolve into a "Reluctant Ally" with nuclear arsenals viewed as non-threatening to the United States, retained more for their perceived value as status granters on the global stage, then what role remains for the United States arsenal? If George Quester is correct and the main threat to the United States is a small uncoordinated and perhaps unauthorized attack from some unknown quarter,¹⁷ will the large warhead yields of our current weapons prove to be a creditable deterrence?

Much has been made of the fact that the United States nuclear arsenal did not deter Saddam Hussein from invading Kuwait. That should not be surprising - the United States nuclear arsenal did not stop Kim Il Sung from invading South Korea in 1950, or Chinese involvement in that war, or the North Vietnamese from supplying troops and arms to the Viet Cong, or Soviet intervention in Hungary (1956), in Czechoslovakia (1968), or Afghanistan (1979). Quite clearly, the arsenal does not deter in cases not involving direct attack upon the United States or its allies. Mere friends should not feel sanguine that the United States nuclear umbrella extends over their heads.

It will take a very large provocation for the United States to break the nuclear taboo. That may not hold true for the rogue state or terrorist organization. If the assertion that the first nuclear weapon exploded in anger on American soil will be delivered by truck by a terrorist is correct, would the United States government feel itself released from the nuclear taboo? Would the documented American public sentiment of willingness to counter nuclear attack still apply? What of the scenario where a small aggressor state uses its few crude nuclear weapons against United States troops in the field during a "Gulf War" style confrontation?

I suspect that the current arsenal would prove too unwieldy for use by an American President. The warheads on our current strategic arsenals are so large as to render them beyond the hope of appearing "proportional." The

massive scale of destruction from even one MIRV'ed TRIDENT D5 or Minuteman III would appear to be hard to justify as proportional. The threat of nuclear retaliation may not present a sense of creditability to the head of state of the aggressor nation. What appears to us an unpleasant "police action" may be an issue of national survival in his eyes meriting the use of nuclear weapons. Further, deterrence theory rests on the assumption of two rational actors, capable of weighing the gains and losses using the same measuring device. The unthinkable in the context of western culture and value systems may be very explainable in the culture of jihad and revenge down through the generations. It would appear to be hard to win a knife fight in a phone booth when you are holding a broad sword.

I would argue that if the future threat is the terrorist organization or rogue state, that the United States has the misfortune of being overdressed for the occasion. Even Paul Nitze is discussing precision strategic conventional weapons as a potential future replacement for nuclear weapons¹⁹. Unfortunately, no reasonable arguments suggest that conventional weapons can be a credible deterrent against a nuclear-armed adversary who has the will to use his weapons.²⁰ The United States could be caught on the horns of a dilemma: How best to deal with a future of potential rogue states with some number of nuclear weapons, who are willing to employ them and who believe the United States is unwilling to employ her very large warheads. The rogue leader would also know that he is safe from American precision conventional weapons deep within his buried hardened command post since we lack the conventional capability to strike him. A Gulliver-Lilliputian scenario brewing may be brewing.

A Case for Smaller Warheads

The answer to providing a creditable nuclear deterrence in this scenario may already partially exist. The tactical nuclear weapons withdrawn from the Navy and Army arsenals carried warheads much smaller than those currently

deployed in our ICBM and SLBM delivery systems. Research into mating these smaller weapons to our long range missiles might serve a two fold purpose. First, it would serve to make our nuclear arsenal more proportional and second, allow the continued disassembly of the current large warheads that make up the current stockpile. Further, since these warheads would be too small to serve as a first strike counter-silo weapon, it would serve to lessen any lingering Russian or Chinese concerns about the intended use of the American arsenal.

However, these warheads are still probably oversized for counter-leadership command post operations, even counter-force against conventional field forces. The collateral damage would potentially still be too large for comfort. The full answer to remaining a nuclear power without being hamstrung by the power of the weapons could lie in a proposal by Thomas Dowler and Joseph Howard to develop a family of micro, mini, and tiny nuclear weapons ranging in size from ten tons to one thousand tons. This compares to the ten to fifteen kilotons of the Fat Man and Little Boy bombs used to terminate World War II. In reality, a "family" may not be necessary. The United States has some experience in the development, production, and deployment of what were jokingly called "dial-a-yield" tactical warheads. These old techniques could be updated to meet a modern target set.

Working against this new direction for United States nuclear deterrence will be what Frank Gaffney has referred to as a unilateral nuclear freeze.²⁰ The declaration of an open-ended cessation of nuclear testing; suspending the production of nuclear weapons; closing key facilities in the industrial infrastructure, including the recent proposal to convert the Lawrence Livermore National Laboratory into a research center for the study of environmental issues; the hemorrhaging of skilled personnel from the Department of Energy's laboratories and production complex; and the failure to ensure a steady domestic supply of tritium gas are used to illustrate his view point. Mr. Gaffney decries what he sees as the resurrection of pacifist hobby horses by Clinton political appointees, this time in the form of policy.

Included in this arena is the adoption of a "no first use" pledge; enacting a permanent comprehensive test ban; declaring a formalized nuclear freeze affecting not only testing but also production and at least some related research and development; instituting wholesale unilateral cuts in United States nuclear forces; keeping a large percentage of our ballistic missile submarines in port while restricting those at sea to negotiated "sanctuaries"; and separating land-based warheads from their missiles.

These policy goals may serve to assuage Russia and China, but will not play a positive role if we are to develop a new generation of smaller, more precise, less destructive nuclear weapons. They will not overcome the potential "lessons learned" by an emerging terrorist state from the Gulf War - do not take on the United States before you have developed or obtained nuclear weapons.

Conclusion

Forty-one years ago, President Dwight D. Eisenhower gave a speech entitled "The Chance for Peace" that laid out a path to a nuclear free world. It received wide praise world wide, including in the former Soviet Union.²¹ The world did not become nuclear free in the subsequent years. The rapid and dramatic changes accompanying the demise of the bipolar world raises hopes again for a lessening of a nuclear danger and a more peaceful world. Yet, as Paul Nitze has pointed out, nuclear weapons can not be "disinvented." The time has come to reconsider how they will serve to provide credible deterrence in the future. In a world not about to go "no nukes" in my remaining life time, serious consideration should be given to developing small weapons, deliverable by ICBM or SLBM systems. These "less bang for the buck" weapons would provide a real military capability as described in detail by Dowler and Howard,²² while drastically reducing the risk to the non-combatant that the enormous lethality of the current weapons pose. It would allow for counter-force targeting against buried leadership command and control complexes and eliminate the repulsive policy of counter-value/counter-power targeting

denied in the 1983 Letter of the Roman Catholic Bishops. The potential for very low yield nuclear weapons in the new security environment is worthy of serious consideration.

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