

# *What* **Nuclear Gaming** *Tells Us About* **New START**



*By Baker Spring and Peter Brookes*

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*By Baker Spring and Peter Brookes*

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**A**s the debate over whether the United States should ratify the New Strategic Arms Reduction Treaty (New START) with Russia continues, Americans would do well to examine the treaty's underlying assumptions and assertions before we sign on to an international agreement that will last for 10 years. President Barack Obama believes that U.S. nuclear disarmament is the sort of leadership by example that can help to rid the world of nuclear weapons. Reducing nuclear warheads and delivery systems under New START is a key component of his “road to zero” effort to achieve the total worldwide elimination of nuclear weapons.

Is President Obama right? Or, as Heritage experts and other informed analysts argue, will this treaty and the President's approach to reducing the nuclear threat actually contribute to the proliferation of nuclear weapons?

## Testing the Arms Control Hypothesis

To test the underlying hypothesis of the Administration's arms control strategy, The Heritage Foundation conducted a series of nuclear gaming exercises in late 2009.<sup>1</sup> Gaming exercises have been used for over a century to test military and diplomatic assumptions about different courses of action. Games attempt to understand how competitions unfold. (Here, “game” is a metaphor for a structured model designed to evaluate how competitors make choices.)

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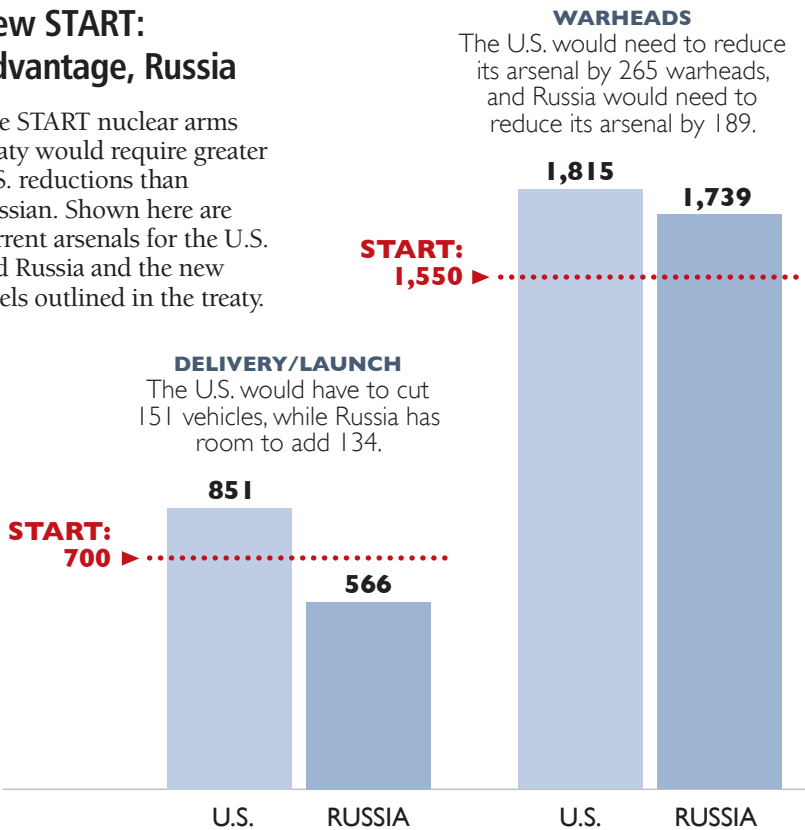
1. A detailed summary of The Heritage Foundation's nuclear gaming exercises is available online at: <http://www.heritage.org/Research/Reports/2010/07/Nuclear-Games-II-An-Exercise-in-Examining-the-Dynamic-of-Missile-Defenses-and-Arms-Control>

Throughout the Cold War, U.S. analysts used gaming exercises to evaluate the nuclear standoff with the Soviet Union. Games let them examine—without risking real-world nuclear war—how nuclear deterrence might play out if one side or the other changed strategies.

During the Cold War, such games were primarily between two sides, reflecting the realities of a then largely bipolar world. Today, however, we face a world in which nuclear weapons are sought by several nations, including states that could spread them to others or

## New START: Advantage, Russia

The START nuclear arms treaty would require greater U.S. reductions than Russian. Shown here are current arsenals for the U.S. and Russia and the new levels outlined in the treaty.



**Note:** Warhead numbers reflect the fact that under New START bombers are counted as carrying only one warhead. Some heavy bombers may not be subject to treaty limits.

**Source:** Heritage Foundation research.

cause others to acquire them in a classic security dilemma scenario. For example, many analysts believe that as Iran becomes a nuclear power, neighboring countries will respond by also seeking these weapons. Indeed, as many as a dozen Middle Eastern and North African states have declared nuclear programs to the International Atomic Energy Agency in recent years. Syria already has a covert program, part of which was destroyed in an Israeli raid in 2007.

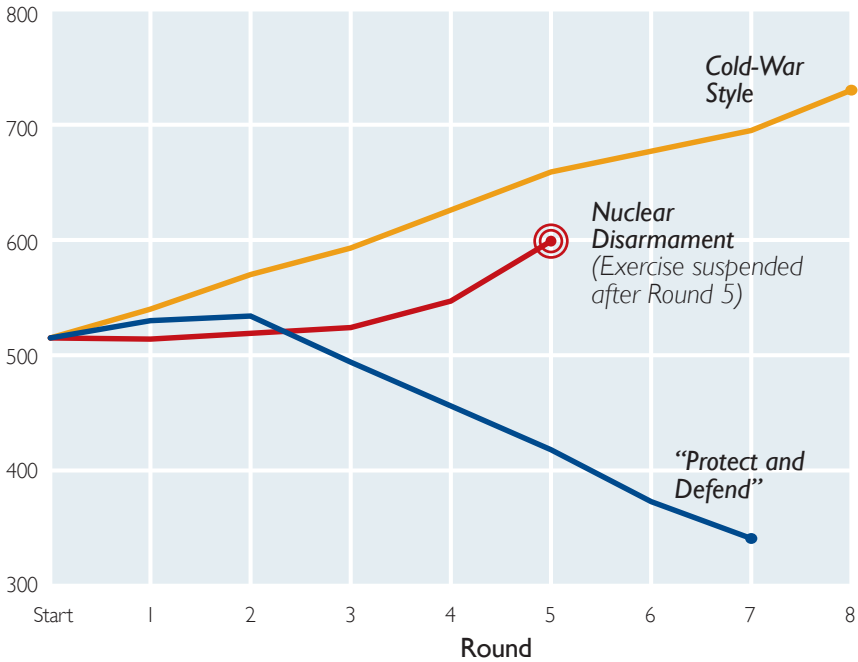
The game design has therefore been broadened to include more states so that policymakers can familiarize themselves with the difficult national security problems that they can expect to confront in a proliferated world.

Three different games, or scenarios, were played by a group of policy and technical experts not only in the field of nuclear proliferation, but also in regional, country, and alliance issues.

- The first game scenario followed the strategy mapped out by President Obama, assuming a U.S. policy of nuclear disarmament with the hope of completely eliminating nuclear weapons across the globe. This scenario proved to be the most destabilizing, resulting in a nuclear conflict.
- The second scenario was similar to the Cold War, in which both sides pursued offensive nuclear weapons but were restrained from using them because of the theory of mutually assured destruction (MAD), which would have resulted in nuclear annihilation for both sides. Under this scenario, global stockpiles of nuclear weapons increased in a new nuclear arms race.
- In the third and final game, the U.S. pursued a policy of “protect and defend” for itself and its allies, relying on a mix of offensive nuclear weapons, deterrence, and robust defensive systems such as missile defenses, which secured America from ballistic missile attack. While nuclear disarmament was not achieved, there was no nuclear arms race or nuclear conflict.

# A “Protect and Defend” Arms Control Strategy Reduced Nuclear Weapons

NUMBER OF WEAPONS IN EXERCISE, BY TYPE OF ARMS CONTROL



**Note:** The numbers of weapons depicted reflects the decisions of the players, not operationally deployed weapons, because of the delay factor in the implementation of decisions and weapons lost for reasons other than arms control.

**Source:** The Heritage Foundation.

The results of the gaming exercises are clear. Pursuing nuclear disarmament in a proliferated world without employing missile defense and maintaining credible nuclear deterrence increases instability, which can lead to nuclear war. Moreover, it is likely that New START will fail to protect the U.S. and its allies from attack, to provide verification of existing programs, and to prevent nuclear proliferation.



Pursuing an arms control strategy of “protect and defend”—in other words, fielding missile defenses and maintaining a modernized, credible nuclear deterrent—appears to be the best option for pursuing arms control and nonproliferation policy while limiting the potential for conflict.

## Rules of the Games

From July 24 through November 19, 2009, the Nuclear Stability Working Group, comprised of analysts from The Heritage Foundation and other outside experts, conducted three nuclear games to assess questions of arms control and arms racing. Each game included seven players representing countries analogous to the U.S., Russia, Israel, Iran, and three other countries in the region. Players opted to participate by arming themselves with nuclear weapons, arming themselves with missile defense, and engaging in diplomacy by negotiating with the other players on arms control and other regional issues.

### Game #1

In this scenario, the U.S. player, roughly mimicking the Administration’s current nuclear arms control strategy, pursued a policy of nuclear disarmament with the intention of ridding the world of nuclear weapons. The U.S. pledged not to acquire new offensive weapons; to de-alert nuclear forces (not have them in status where they were ready to be fired); and to contribute to transparency by not “shrouding” forces (not concealing from the other players what status weapons were in, such as ready to be fired or on de-alert). The U.S. player also led by example by reducing its offensive stockpile of nuclear weapons and pledging not to acquire missile defenses for itself or any other player-state.

The result was failure. U.S. arms control leadership was rejected by other states, with no other player following the U.S. disarmament

example. Each instead pursued its own strategic interests. In some cases, nations used the threat of nuclear weapons or of acquiring more nuclear weapons to advance their interests. In the end, the U.S. was unable to stem growing regional and worldwide instability. For example, confrontation between the Iran and Israeli players escalated, despite U.S. efforts to broker peace. In addition, states that had formerly relied on a strong and stabilizing U.S. presence to protect their interests turned instead to ally with Russia.

Emphasizing nuclear disarmament before first addressing issues of diplomatic and strategic conflict between the players, such as the animosity between Israel and Iran, proved to be deeply destabilizing. Meanwhile, the U.S. policy of not pursuing comprehensive missile defenses meant that the relative value of nuclear weapons for other players increased, making those weapons more attractive. Players sought to increase their nuclear arsenals to gain security or threaten other states. Arms control efforts to reduce offensive forces failed.

The U.S.'s decision to stand down its offensive nuclear force led aggressive states to take more risks. Meanwhile, other states increased their nuclear stockpiles and sought out new alliances, which only further increased regional tensions. It became extremely difficult for players to manage bilateral relations since they had to address the concerns of multiple nuclear states with varied interests at the same time. For example, the more Israel sought out new partnerships to deter Iran, the more the tensions between the two countries escalated. In the end, nuclear war erupted involving several nations, including the U.S. player.

## **Game #2**

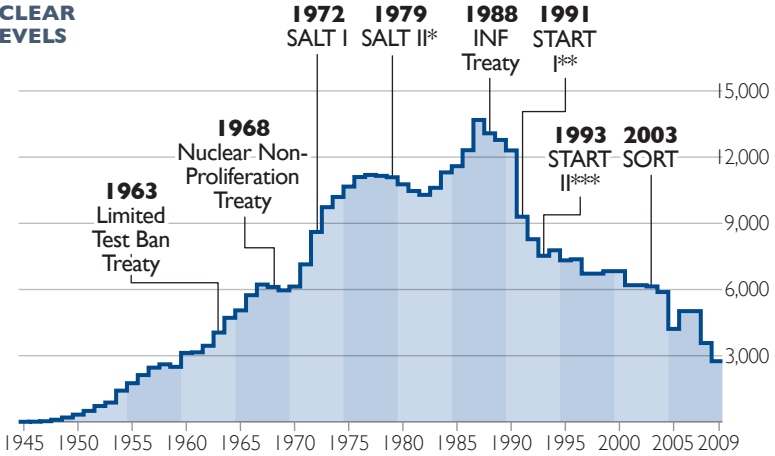
In this scenario, the U.S. pursued a Cold War–like policy emulating the situation when the U.S. and the Soviet Union pursued only offensive weapons, building large arsenals. During this period, the

# U.S. Nuclear Arsenal Shrinks, Nuclear States Still Emerge

The U.S. has 80 percent fewer nuclear weapons than it did in 1987. Since then, Pakistan and North Korea have become nuclear powers, and Iran has aggressively sought to develop nuclear weapons.

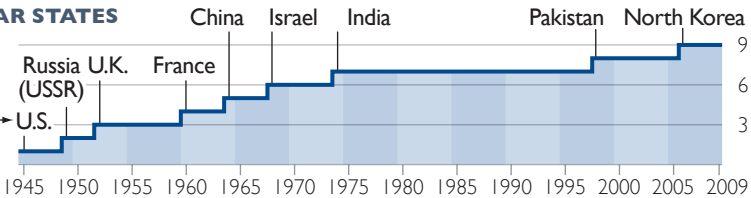
## U.S. NUCLEAR ARMS LEVELS

Strategic Offensive Warhead Levels



## NUCLEAR STATES

Newly added nation



\* Never formally ratified    \*\* Entered into force in 1994    \*\*\* Never entered into force  
 Note: Israel's status as a nuclear state is undeclared, but believed to have begun in 1968.

Sources: Natural Resources Defense Council, *Bulletin of the Atomic Scientists*, Center for Defense Information.

balance of power was assured by the threat of MAD, and the U.S. maintained a modernized, robust nuclear deterrence, seeing it as essential to its security and that of its allies. During this game, the U.S. player pursued a similar strategy, emphasizing the capacity to retaliate against any player or combination of players that might threaten the United States or its interests, but absent an ability to defend itself through the deployment of missile defense.

Over the course of the game, other states sought to match the U.S. strategy. In particular, they strove to achieve parity with, or to exceed, the nuclear arsenals of regional competitors or sought alliances to increase their capacity to retaliate against other players. By the end of the game, both global inventories of weapons and nuclear proliferation had increased significantly.

This scenario demonstrated that a policy that favors nuclear deterrence with large offensive arsenals at the expense of missile defense generates an arms race. In this case, the United States did not provide missile defenses to its allies, which meant that all of the player-states invested heavily in offensive nuclear weapons because these weapons continued to be effective. During the game, only the most limited agreements to control the pace of the growth of nuclear arsenals proved possible. The end result was a dangerous, volatile world characterized by many states with many nuclear weapons.

### Game #3

In the final scenario, the U.S. pursued a “protect and defend” policy for itself and its allies against nuclear attack, relying on a mix of strategic offensive deterrence weapons and missile defense capabilities.<sup>2</sup> At the same time, the U.S. player encouraged all player-states to adopt more defensive strategic posture. Under the rules of the game, missile defenses were not perfect; in other words, no state could be guaranteed complete protection from a nuclear strike if attacked. States were also encouraged to reduce offensive forces in exchange for more missile defenses.

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<sup>2</sup> The “protect and defend strategy” is designed to provide the best possible security to the U.S. and its allies against strategic attack by combining passive and active measures. The “protect” portion of the strategy refers to the passive measures, which will include civil defenses, hardening measures, and readying first responders, among other steps; these largely fall under the responsibility of the Department of Homeland Security. The “defend” portion of the strategy refers to active measures, including missile defenses, air defenses, space defenses, cyberspace defenses, and general purpose forces for attacking terrorist strongholds, among other steps; these largely fall under the responsibility of the Department of Defense.

Due to the U.S.'s defensive option, it enjoyed greater influence over the international arms control agenda. This led to dramatic reductions in numbers of offensive weapons among all players. The U.S. player also found that it could simultaneously modernize its offensive nuclear force and complete agreements to reduce the size of nuclear arsenals. All player-states felt that pursuing more defensive options increased the likelihood of their survival in a proliferated environment.

In the final game, the U.S.'s "protect and defend" strategy made it possible to reduce its offensive nuclear weapons arsenal without abandoning nonproliferation goals. Moreover, multilateral defenses served as a barrier to any state hoping to cheat on arms control pacts. For instance, the U.S. could not stop Iran from being deceptive, but it could make Iran rethink the value of developing a first-strike option or openly building up its offensive weapons inventory, because other states had enough defenses to dissuade them.

## The Study's Conclusions

In summary, the nuclear gaming exercises provided seven clear conclusions:

1. Pursuing a policy of nuclear disarmament in a proliferated setting actually leads to instability. When confronted with a crisis, countries relied on nuclear weapons more, not less.
2. A policy of nuclear disarmament is most likely to damage alliance structures. Allies seek new partners to ensure their security.
3. Having the option to field missile defenses gave the U.S. broader options for pursuing an arms control policy to limit or reduce nuclear arms.
4. Non-compliance with treaties remains a problem for arms control no matter what the setting may be.
5. Selective nuclear modernization is not inherently incompatible with quantitative nuclear arms reductions. In the third game,

the U.S. exercised options to expand missile defenses, modernize its nuclear arsenal, and reduce the number of nuclear weapons overall.

6. Pursuing arms control through a “protect and defend” strategy—in other words, fielding missile defenses and maintaining a modernized, credible nuclear deterrent—appears to be the best option for pursuing arms control and nonproliferation policy while limiting the potential for conflict.

## A Better Way to a Safer World

So how does this relate to New START? Clearly, there is a better way to achieve arms control than by constraining missile defenses as the New START treaty negotiated with Russia will do.

Moreover, the greatest nuclear threat that the United States faces today comes not from Russia, but from Iran and North Korea, which have little regard for arms control as evidenced by their actions under the Nuclear Non-Proliferation Treaty (NPT). Yet New START will have no effect on their nuclear weapons programs. It would, however, give Russia room to modernize its nuclear arsenal. As Yuri Savenko, first deputy chairman of the Russian Duma’s Defense Committee, has said: “Whether the Americans want it or not, they, after adopting the New START treaty, will give us a breathing space that we can use to reform and modernize the country’s nuclear missile potential.”

What the world needs, rather than another Cold War–style bilateral treaty with Russia such as that found in New START, is a new strategy to secure peace-loving people from nuclear attack. Such a strategy:

- *Would strive* to reduce operationally deployed strategic nuclear warheads but leave missile defenses unconstrained;
- *Would permit* nuclear weapons to be deployed to enhance those defenses but not to threaten population centers;

- *Would foster* mutual cooperation in fielding missile defenses and seek a number of bilateral treaties with Russia and others to reduce tactical nuclear arsenals and counter nuclear-armed terrorism specifically; and
- *Could lead*, over time, to an international treaty that emphasizes strategic defenses rather than offensive nuclear arms, thereby enhancing strategic stability.

Such a path to arms control is far better than current policies because it would not re-introduce a balance of nuclear terror. Instead, it would more effectively target the real problem: the development of large strategic arsenals and proliferation of nuclear weapons.



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“talk about it”**



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