

The logo for the Federation of American Scientists (FAS) is displayed in large, white, serif capital letters on a dark blue background. To the right of the text, there is a decorative graphic featuring a glowing globe, a portion of a periodic table of elements (showing As, Se, Sb, and their atomic numbers and weights), and a white wavy line with small glowing dots.

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Policy Responses to Nuclear Threats: Nuclear Posturing After the Cold War

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Overview

Remembering Cold War nuclear threats.

Status of world nuclear forces.

The effect of proliferators on US nuclear doctrine.

The Obama administration's nuclear weapons policy.

Outlook and Conclusion.

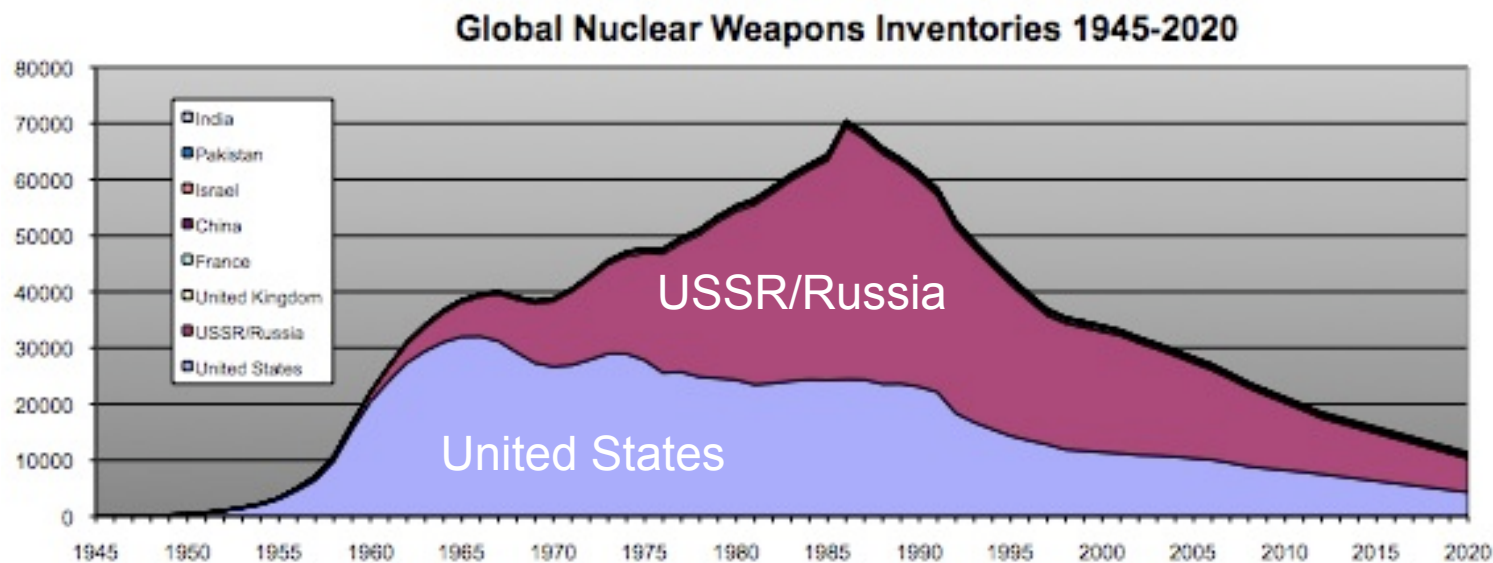


Remembering Cold War Nuclear Threats

“Threat” meant annihilation; the stakes were infinite.

Battle for global dominance; efforts were unlimited.

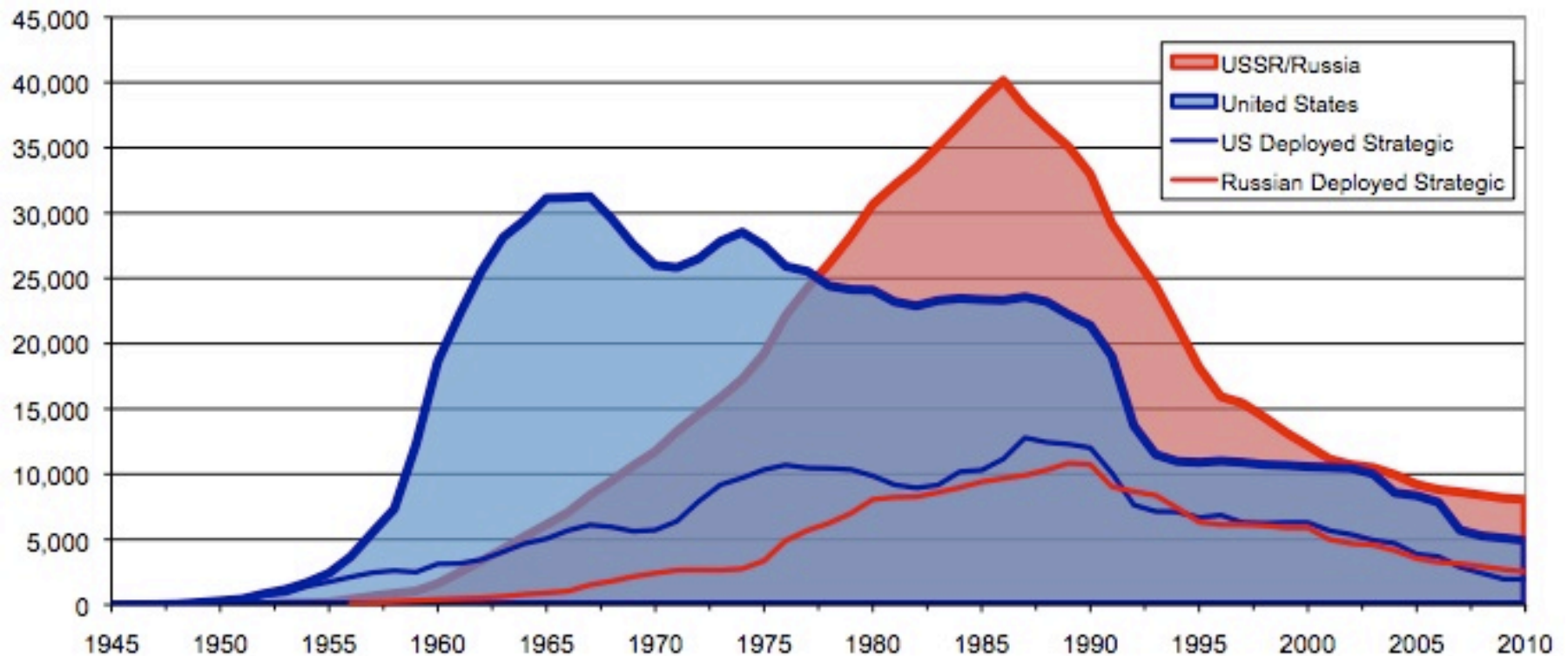
Other nuclear “threats” were secondary.



Remembering Cold War Nuclear Threats

Whatever a rogue state or terrorists may do, it is not greater than the Cold War threat!

US-Russian Military Stockpiled Nuclear Warheads 1945-2010



Remembering Cold War Nuclear Threats

Battlefield weapons to fight protracted nuclear wars: nuclear use.



B61 bomb



Mk45 torpedo



250-mm artillery



Davy Crockett bazooka



Mk44 anti-submarine rocket



DASH depth charge



SADM mine



Terrier anti-aircraft

Status of World Nuclear Forces

We are still in the draw-down phase from the excessive arsenals of the Cold War:

- Still enough left to equip every country on the planet with more than 100 nuclear weapons!

Russia and United States possess 95% of all nuclear weapons.

Proliferators well below original five nuclear weapon states.

India-Pakistan could surpass UK and Israel in next decade.

Despite nuclear test, no public evidence that North Korea has deliverable nuclear warheads.

**Estimated Global Nuclear Weapons Inventories
2010**

	<u>Operational</u>	<u>Military Stockpile</u>	<u>Total Inventory</u>
Russia	4,600	8,000	12,000
United States	2,400	5,000	8,500
France	300	300	300+
China		180	240
United Kingdom	160	225	225
Pakistan		70-90	70-90
India		60-80	60-80
Israel		80	80
North Korea		<10	<10
Total	7,460	14,000	21,500

Status of World Nuclear Forces

Nuclear Weapon Status of Selected Countries 2010

<u>Country</u>	<u>Declared</u>	<u>Suspected</u>	<u>Former</u>	<u>Surrogate</u>	<u>Pursuing</u>	<u>Potential</u>
Argentina						█
Belarus			█			
Belgium				█		
Brazil						█
China	█					
France	█					
Germany				█		█
India	█					
Iran					█	
Israel		█				
Italy				█		
Libya						█
Netherlands				█		
Kazakhstan			█			
North Korea	█	█				
Pakistan	█	█				
Russia	█					
South Africa			█			
South Korea						█
Turkey				█		
Ukraine			█			
United Kingdom	█					
United States	█					

- Eight declared nuclear weapon states.
- Two suspected nuclear weapon states.
- Four former nuclear weapon states.
- Five surrogate nuclear weapon states.

Some proliferation but far from dire predictions:

- Most countries did not go nuclear.
- Four did go nuclear.
- One might go nuclear.
- Nuclear power compounds risk.

Effect of Proliferators on Nuclear Doctrine

Despite few proliferators, nuclear weapons have been quick to incorporate them into nuclear doctrine and war planning.

Discovery of Iraq's clandestine weapons program triggered US doctrinal shift from deterring *nuclear* weapons to deterring *weapons of mass destruction*:

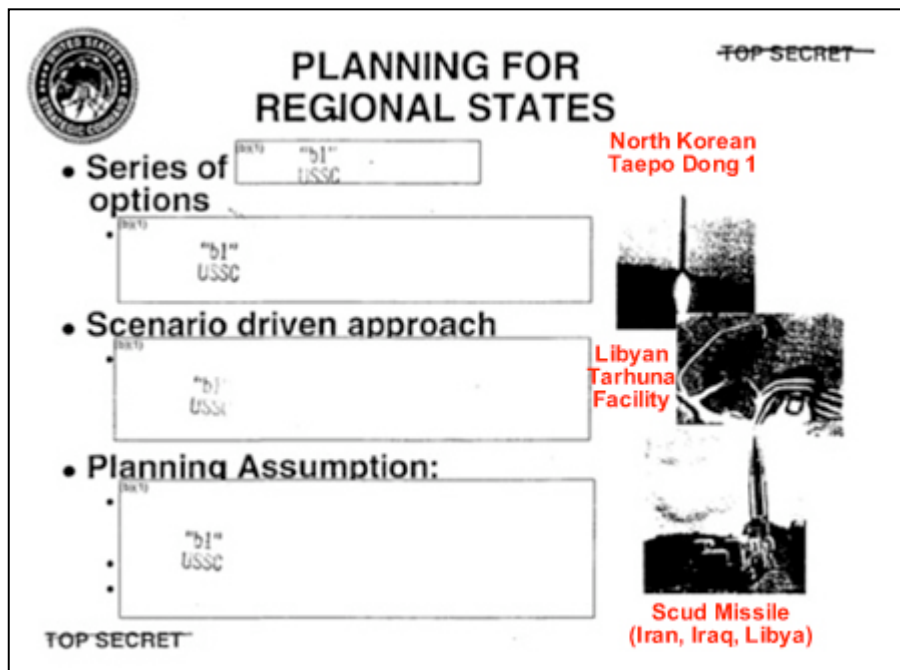
- Nuclear planning directed against more regional adversaries.
- Broader target base for nuclear strike plans (PDD-60).
- New weapons requirements (PLYWD, mini-nukes, RNEP).

Terrorist attacks in 2001 triggered further doctrinal shift toward preemption:

- 2002 presidential guidance (NSPD-14).
- 2003 Global Strike mission (CONPLAN 8022).
- 2005 Doctrine for Joint Nuclear Operations (JP 3-12).

Other nuclear weapon states also have made adjustments (France, UK); Russia is more focused on US/NATO and China in its nuclear planning.

Effect of Proliferators on Nuclear Doctrine

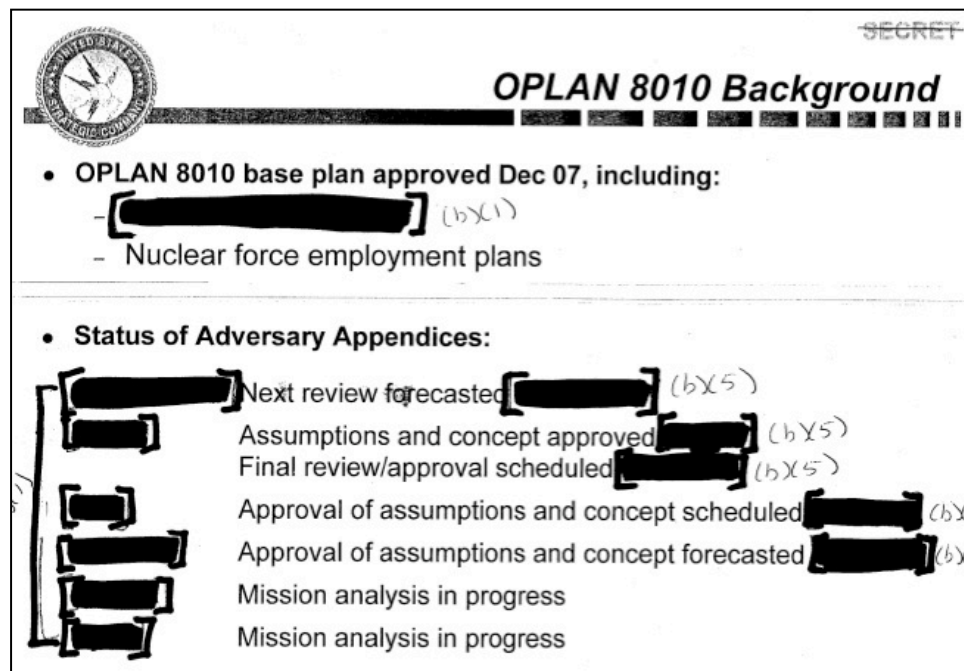


Executable strike plans against regional states first entered the strategic war plan in March 2003.

Mission creep beyond “nuclear” to “WMD” broadened geographic scope and contingencies. Compared with SIOP, OPLAN 8010 “provides more flexible options” for “a wider range of contingencies.”

Wider targeting scope combined with reduction in deployed warheads has led to requirements for increased flexibility, “grooming” of weapons, and created an increasingly complex plan.

Effect of Proliferators on Nuclear Doctrine



OPLAN 8010 first entered into effect on October 1, 2008. Current version (Change 1) from February 2009.

Strategic war plan; replacing SIOP and OPLAN 8044.

First real non-SIOP, “New Triad” war plan.

Directed against six adversaries: Russia, China, North Korea, Iran, Syria, and 9/11 WMD scenario.

Three of the adversaries do not have nuclear weapons; two of them are signatories to the NPT.

Merges strategic deterrence and Global Strike missions.

Includes broad “family” of nuclear and non-nuclear strike options.

Obama Administration's Nuclear Weapons Policy

During election campaign (and first few months in office) Obama promised to:

- Reduce “reliance” on nuclear weapons.
- Stop development of new nuclear weapons.
- Seek deep cuts with Russia and other nuclear powers to reduce global stockpiles “dramatically” by the end of the Obama presidency.
- Work with Russia to take ballistic missiles off “hair-trigger” alert.
- Ratify the Comprehensive Test Ban Treaty (CTBT).
- Expand the 1987 INF Treaty globally.
- Seek an international agreement to end production of fissile materials for weapons.
- Lock down fissile materials in only four years.

In Prague (April 2009) he pledged: “To put an end to Cold War thinking, we will reduce the role of nuclear weapons in our national security strategy....”

Since then the agenda has become more modest.

Obama Administration's Nuclear Weapons Policy

The “new” in the NPR is that it elevates nuclear disarmament and nonproliferation to the same level as nuclear forces in national security policy. Nonproliferation goals include:

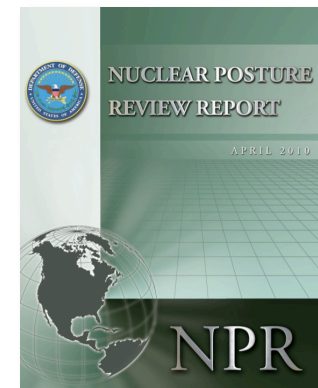
- Reverse the nuclear ambitions of North Korea and Iran.
- Strengthen IAEA safeguards.
- Create consequences for non-compliance.
- Impede sensitive nuclear trade.
- Promote peaceful use of nuclear energy without increasing proliferation risks.
- Locking down nuclear materials in four years.
- Fissile Material Cutoff Treaty (FMCT).
- Comprehensive Test Ban Treaty (CTBT).

International support for this agenda requires significant progress on reducing the number and role of nuclear weapons.

Obama Administration's Nuclear Weapons Policy

Obama has also pledged to maintain a strong nuclear deterrent. The Nuclear Posture Review (April 2010) decided to:

- Maintain triad of strategic nuclear forces, including up to 420 deployed ICBMs, up to 240 deployed SLBMs, and up to 60 heavy bombers.
- Maintain ICBMs and some SLBMs on high alert.
- Build new class of SSBNs, study new bomber (possibly with cruise missile), and explore next-generation ICBM (possibly mobile).
- Equip F-35 Joint Strike Fighter with modified nuclear bomb (B61-12).
- Retain “hedge” of reserve warheads for potential upload.
- Full-scale production of life-extended W76 warhead, move forward with B61 life-extension, prepare life-extension of W78 warhead.
- Build three nuclear bomb factories for increased warhead production capacity.

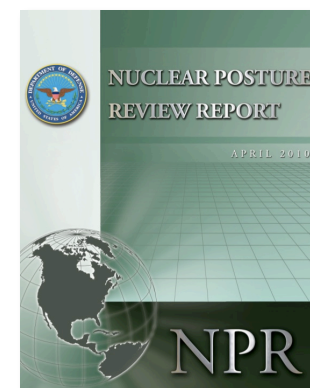


Cold War force structure maintained with large upload capacity and commitment to extensive nuclear modernization over next two decades.

Obama Administration's Nuclear Weapons Policy

The NPR officially reduces the role of nuclear weapons but then adds that it can't after all:

- “The United States will continue to reduce the role of nuclear weapons in deterring non-nuclear attacks. To that end, the United States is now prepared to strengthen its long-standing “negative security assurance” by declaring that the United States will not use or threaten to use nuclear weapons against non-nuclear weapons states that are party to the Nuclear Non-Proliferation Treaty (NPT) and in compliance with their nuclear non-proliferation obligations.”



...but then goes on to add that:

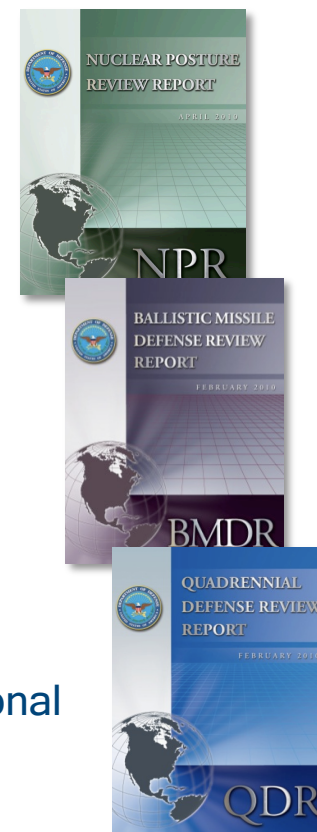
- “there remains a narrow range of contingencies in which U.S. nuclear weapons may still play a role in deterring a conventional or CBW attack against the United States or its allies and partners. The United States is therefore not prepared at the present time to adopt a universal policy that the “sole purpose” of U.S. nuclear weapons is to deter nuclear attack on the United States and our allies and partners...”

Obama Administration's Nuclear Weapons Policy

No apparent immediate effect from “reduction” on current nuclear role:

Adversary	Not affected by “reduced role” because:
Russia	It has nuclear weapons.
China	It has nuclear weapons.
North Korea	It has nuclear weapons and is not a member of the NPT.
Iran	It is not considered in compliance with the NPT.
Syria	It is not considered in compliance with the NPT.
9/11 scenario	It involves non-state actor (not member of NPT) acting alone or in collusion with “rogue” state not in compliance with/member of NPT.

But administration pledges to work to establish conditions under which a “sole purpose” (nukes against nukes) could be safely adopted as part of a “new regional deterrence architecture” with strengthened conventional and missile defense capabilities. Once in place, those non-nuclear capabilities could also reduce role of nuclear weapons in some limited nuclear scenarios against regional adversaries.



Obama Administration's Nuclear Weapons Policy

“Dramatic” reductions begun with modest New START treaty (May 2010):

- Reduce limit for deployed strategic warheads to 1,550, down from 2,200 under Moscow Treaty from 2002.
- Reduce limit for deployed strategic delivery systems to 700 with 100 additional non-deployed, down from 6,000 under START treaty from 1991.
- On-site verification regime counts actual warheads on ICBMs and SLBMs but not on bombers (each aircraft is counted as carrying one weapon).
- No sub-limits; freedom to mix forces.



Modest reductions of existing forces but important verification and relations “reset.”

Next round: non-deployed and non-strategic warheads?

Outlook and Conclusion

How will new threat perception, NPR, and New START affect nuclear posture?
Apparently not very much, because:

- Triad and alert status are retained.
- Reduction of ICBMs, SLBMs, and bombers is modest.
- New START does not require destruction of a single warhead (although this may happen for other reasons).
- NPR does not reduce role in a way that affects the war plan.
- War plan has already been adjusted to provide more options against a wider range of scenarios with fewer deployed weapons.

Inherent conflict in nuclear policy between maintaining a strong nuclear deterrent and the ambitious nonproliferation agenda; the latter requires dramatic reduction of number and role of nuclear weapons, which the NPR does not provide.

New START ratification process indicates that additional progress may be hard; mid-term election result exacerbates that outlook.

Questions/Contact/Get Involved

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