The U.S. nuclear posture has evolved considerably since the end of the Cold War. Most people are familiar with the decline in the number of nuclear weapons, but behind this drawdown hide obscure but important developments including modified or new declaratory policies, guidance to the war planners, and war plans against traditional and new adversaries.

The Bush administration came to power with an agenda of reducing yet reaffirming and revitalising the nuclear posture. The leak of the 2001 Nuclear Posture Review exposed the intentions from the start, but more than most people realise, the Bush administration’s agenda was based to a significant extent on policy and planning that emerged during the Clinton administration.

The two main pillars in this agenda were a new relationship with Russia and how to deal with regional adversaries. The first pillar – Russia – continued the reductions in nuclear weapons and led to the removal of Russia as an «immediate contingency» for U.S. nuclear planning. This forced planners to think anew about how to plan for and structure the posture, and ironically has resulted in a much more flexible and capable force planning. The second pillar – regional adversaries – resulted in a broadening of nuclear-targeting policy that increased the number of strike options against more countries in more scenarios.¹

So while the United States has reduced – although by no means ended – its nuclear planning against Russia, it has also increased its planning against China and a number of smaller regional states.

This chapter briefly describes some of the main developments in this evolution, beginning with nuclear policy and guidance as it
evolved during the Clinton and Bush administrations, the response of the nuclear war fighters in implementing the policy and guidance, and ending with an overview of the nuclear weapons stockpile history and expected development in the next decade.

### Table 1. U.S. Nuclear Forces 2008

<table>
<thead>
<tr>
<th>Weapon System</th>
<th>Warhead Types (max yield in kt)</th>
<th>Total Warheads</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Intercontinental Ballistic Missiles</strong></td>
<td>W62 (170), W78 (335), W87 (300)</td>
<td>764</td>
</tr>
<tr>
<td><strong>Minuteman III</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sea-Launched Ballistic Missiles</strong></td>
<td>W76 (100), W76-1 (100), W88 (455)</td>
<td>1728</td>
</tr>
<tr>
<td><strong>Trident II D5</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Bombers</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B-2A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B-52H</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Subtotal Strategic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-strategic Weapons</td>
<td>W61-3 (170), B61-4 (50)</td>
<td>400</td>
</tr>
<tr>
<td></td>
<td>W80-0/TLAM-N (550)</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total deployed Arsenal</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total DOD-stockpile</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Awaiting dismantlement</td>
<td></td>
<td>-5400</td>
</tr>
</tbody>
</table>

The U.S. arsenal of deployed nuclear weapons is shrinking toward the limit of 2,200 operationally deployed strategic warheads by 2012 stipulated by the Moscow Treaty. Excess warheads «cuts» from the DOD-stockpile in December 2007 are scheduled to be dismantled by 2023.

### Nuclear policy: origins and status

The Bush administration came into office with a highly controversial Nuclear Posture Review (NPR). Large portions of the review were leaked to the media in early 2002, forcing the administration to defend its nuclear policy. At a time when officials were speaking of reducing the role of nuclear weapons in U.S. national security, the review appeared to increase the status of China and «rogue» states in U.S. nuclear-targeting policy and argued for revitalising the nuclear weapons production complex.
The basis for saying the NPR reduced the reliance on nuclear weapons was twofold. First, Russia was no longer considered an «immediate contingency» for nuclear war planning, and the administration said operationally deployed strategic forces could now be reduced to less than 2,200 by 2012. This decision accepted the START III force level which Presidents Clinton and Yeltsin had agreed to in Helsinki in March 1997, and was codified in the Moscow Treaty of 2002 – minus verification, irreversibility, and limits on non-strategic nuclear weapons.

Second, a «New Triad» was outlined to replace the «old» Triad of land- and sea-based long-range ballistic missiles and long-range bombers with:

- offensive kinetic weapons (the «old» Triad and conventional weapons),
- missile defence systems and
- a responsive nuclear weapons infrastructure.

This left the impression that some nuclear weapons in the war plans would be replaced with conventional weapons, or retired altogether because of missile defences or an increased capability to produce new nuclear weapons if needed.

In reality, the NPR was deeply rooted in nuclear policy and force structure decisions that emerged during the first decade after the Cold War. The demise of the Soviet Union forced a rethinking of nuclear policy toward Russia and a series of bilateral and unilateral initiatives to reduce nuclear arms. This included the START treaties from 1991 and 1992, the Helsinki Agreement from March 1997, and Presidential Decision Directive (PDD) 60 from October 1997, which ordered the military to end planning for protracted nuclear war with Russia and removed most conventional forces targets from the nuclear war plans. Those decisions are still being implemented today, and the Bush administration has yet to make new arms reduction decisions to move the process to the next phase. Instead, the Bush administration contribution has largely been limited to implementing the force structure decisions that were made in the 1990s.

On the policy side, the NPR also built on efforts in the 1990s to broaden nuclear planning from its former focus in the Soviet Union and China to «rogue» states armed with weapons of mass destruction. This development, which was contained in PDD-60, had a more profound effect on U.S. nuclear policy. Although Russia
remained the focus due to the sheer number of its remaining nuclear forces, the post-Cold War target base would consist of «fewer but more widespread targets». The so-called rogue states (Iran, Iraq, Libya, North Korea and Syria) achieved a prominent status in the new policy and planning primarily due to their pursuit of weapons of mass destruction. Essentially overnight, the role of U.S. nuclear weapons ballooned from deterring nuclear weapons to deterring all forms of WMD.

I have described elsewhere how this development evolved in the 1990s, so here I will focus on the developments during the Bush administration. The NPR was in the final phases when the terrorist attacks occurred on 11 September, 2001. The review was hastily edited to reflect the new events, but the hype that followed led to specific policy guidance that would have significant implications for nuclear policy and planning.

New guidance and new war plans
On 28 June, 2002, nine months after the terrorist attacks, President Bush signed National Security Presidential Directive (NSPD)-14 that laid out the new administration’s nuclear weapons planning guidance and provided broad overarching directions to the agencies and commands for nuclear weapon planning. As such, NSPD-14 should be understood as replacing Presidential Decision Directive (PDD)-60 signed by President Clinton in November 1997.

Flowing from NSPD-14 were several other important guidance documents. The first was the NUWEP Transitional Guidance signed on 29 August, 2002, which led to the publication of NUWEP-04 with detailed instructions to the military for what strike options should be developed against specific target categories in which countries.

Before NUWEP-04 was completed, however, President Bush signed NSPD-17 (National Strategy to Combat Weapons of Mass Destruction) in September 2002. This secret directive, which articulated a new strategy for a comprehensive approach to countering weapons of mass destruction, reaffirmed that, if necessary, the United States will use nuclear weapons – even pre-emptively – against anyone using weapons of mass destruction against the United States, its forces abroad, and friends and allies. A top-secret appendix to NSPD-17 specifically named Iran, Syria, North Korea and Libya among the countries that are the central focus of the new U.S. strategy. A senior administration official briefing report-
ers on the new strategy says the options include nuclear weapons. The motivation for the new strategy, according to one participant in the interagency process that drafted it, was the conclusion that «traditional non-proliferation has failed, and now we’re going into active interdiction».

NSPD-17 coincided with the publication of The National Security Strategy of the United States of America in September 2002, which publicly articulated a pre-emption doctrine against weapons of mass destruction.

The document called for transformation of military forces to rapidly and precisely «stop rogue states and their terrorist clients before they are able to threaten or use weapons of mass destruction against the United States and our allies and friends».7

In response to this guidance, STRATCOM started upgrading the national nuclear war plan known as the SIOP (Single Integrated Operational Plan) to incorporate the new missions. During the preparations, STRATCOM commander Admiral James Ellis contacted General Richard Myers, the Chairman of the Joint Chiefs of Staff, to point out that the name SIOP no longer properly described the composition of the new plan. «STRATCOM is changing the nation’s nuclear war plan from a single, large, integrated plan to a family of plans applicable in a wider range of scenarios», Ellis explained. The SIOP name, he said, is a Cold War legacy. This was essentially the same request General Butler made a decade earlier, except Admiral Ellis proposed turning the unique SIOP into an Operations Plan (OPLAN) alongside other standing war plans: Operations Plan 8044 (OPLAN 8044).8

In early February 2003, General Myers authorised STRATCOM to formally change the name SIOP to better reflect the creation of STRATCOM’s «new family of plans». But Myers was concerned that confusion might arise «between the basic USSTRATCOM OPLAN 8044 and the combat employment portion of that OPLAN, currently known as the SIOP». The solution, he decided, was to continue to call the basic plan OPLAN 8044, but incorporate the term OPLAN 8044 Revision (FY) to describe that portion of the plan currently known as the SIOP. The Revision number (FY) would correspond to the fiscal year the combat employment plan was put into effect. The first plan to carry the new name was OPLAN 8044 Revision 03 which entered into effect on 1 March, 2003.9

The «family of plans» included new executable scenario-driven attack options against regional states armed with weapons of mass destruction. A STRATCOM briefing declassified and released in
heavily redacted form under the Freedom of Information Act did not withhold the images that help identify the regional states as North Korea, Libya, and probably Iran, Iraq and Syria (see figure 1).

**Figure 1. Regional nuclear strike plans in OPLAN 8044 Revision 03**

White House nuclear weapons guidance issued shortly after the 2001 terrorist attacks led to the incorporation of nuclear strike plans against regional WMD proliferators into the strategic nuclear war plan OPLAN 8044 Revision 03 that entered into effect in March 2003. A page in a STRATCOM briefing on Revision 03 includes images of the North Korean Taepo Dong missile, the Libyan underground facility at Tarhuna, and SCUD-B missiles (probably Iraq, Iran and Syria).

**The Global Strike mission**

Coinciding with the emergence of a «family of plans» against Russia, China and regional states, Defense Secretary Donald Rumsfeld in January 2003 signed Unified Command Plan Change 2, which assigned four new missions to STRATCOM: Global Strike, missile defence, information operations, and global C4ISR. The plan described the Global Strike mission as «providing integrated global strike planning and command and control support to deliver rapid, extended range, precision kinetic (nuclear and conventional) and...»
non-kinetic (elements of space and information operations) effects in support of theater and national objectives».

Global Strike is the military embodiment of the Bush administration’s 2002 pre-emption doctrine and the «tailored deterrence» capabilities required by the 2001 NPR. The operationalisation of Global Strike has taken several forms since 2003, and for several years STRATCOM attempted to create a unique self-standing strike plan known as Concept Plan (CONPLAN) 8022 designed to provide the president with prompt global strike options against time-urgent targets. The first draft CONPLAN 8022 was ready in April 2003 and completed in November 2003, less than a year after STRATCOM was assigned the Global Strike mission. Work on an updated version, known as CONPLAN 8022-02, was underway at the time, although the -02 version never made it off the drawing board. On January 11, 2004, STRATCOM commander Admiral Ellis certified the readiness of the command’s new Global Strike mission to the Secretary of Defense and the President, and in March 2004, Admiral Ellis told Congress that STRATCOM’s achievements over the previous year included: «Developed a Global Strike Strategic Concept, validated it through a series of exercises and gained final approval of a Global Strike plan.»

The successor to Admiral Ellis, Lt. Gen. James E. Cartwright, Director for Force Structure, Resources, and Assessment Directorate (J-8), Joint Staff, stated before the House Armed Services Committee the same month that «STRATCOM has reported significant progress in their new mission area of Global Strike, and they are on schedule to achieve full operational capability this year. Global Strike will enable us to hold at risk emerging target sets not included in a deliberate plan, where timeliness is critical». As a concept plan, CONPLAN 8022 was not operational at the time, but available for implementation if so ordered by the Secretary of Defense. That order came in June 2004, when Defense Secretary Donald Rumsfeld signed the Interim Global Strike Alert Order, which ordered the military to implement CONPLAN 8022 to provide the President with a prompt, global strike option. On 30 June, 2004, JCS Chairman General Richard Myers followed up by signing the Global Strike Alert Order (ALERTORD), which ordered STRATCOM to put CONPLAN 8022 into effect with Navy Tomahawk missiles and Air Force bombers carrying conventional cruise missiles, Joint Direct Attack Munitions and other gravity released weapons. Selected nuclear ballistic missiles were also tasked. Finally, on 17 August, STRATCOM published Global Strike Interim Capability Operations
Order (OPORD) which changed the status of CONPLAN 8022 from a concept plan to a fully operational contingency plan.

In early September 2004, STRATCOM’s Command Center issued planning guidelines for CONPLAN 8022 in response to the 30 June ALERTORD and 17 August OPORD. The guidelines also state that CONPLAN 8022-02 was still in draft form but «undergoing JPEC [Joint Planning and Execution Community] approval process with expected approval date of [deleted]».

The highly offensive and pre-emptive thinking that underpins the Global Strike mission also found its way into the revision of Doctrine for Joint Nuclear Operations (Joint Publication 3-12), a document that first appeared in 1993. The second draft from March 2005 listed five scenarios where use of nuclear weapons might be requested, several of which envisioned preventive strikes:

- To counter an adversary intending to use weapons of mass destruction against U.S., multinational or allies forces or civilian populations;
- To counter an imminent attack from an adversary’s biological weapons that only effects from nuclear weapons can safely destroy;
- To attack adversary installations including weapons of mass destruction, deep, hardened bunkers containing chemical or biological weapons, or the command and control infrastructure required for the adversary to execute a WMD attack against the United States or its friends and allies;
- To counter potentially overwhelming adversary conventional forces;
- To demonstrate U.S. intent and capability to use nuclear weapons to deter adversary WMD use.

After I disclosed this effort in an article in Arms Control Today in September 2005, sixteen members of Congress wrote to the president and objected to what they considered to be a «drastic shift in U.S. nuclear policy».

Embarrassed by this exposure of the secret efforts, the Pentagon cancelled not only the draft doctrine (and four other related nuclear doctrine documents) but also the existing Doctrine for Joint Nuclear Operations document that had been publicly available on the Joint Chiefs of Staffs’ web site for a decade. An official explained that the documents will not be published, revised, or classified – simply cancelled. He added that they were not really doctrine documents but «pseudo documents».
discussing nuclear policy issues. The public «visibility led a lot of people to question why we have them», he said.\textsuperscript{15}

Before CONPLAN 8022-02 could be completed, however, STRATCOM Commander General Cartwright withdrew the plan in the fall of 2004. And STRATCOM told me in July 2007 that CONPLAN 8022 has been cancelled and no longer exists. The reason for this development is still murky, not least because there have been several official references made to CONPLAN 8022 since 2004, but it appears that the prompt, crisis-focused Global Strike options in CONPLAN 8022 may have been incorporated into OPLAN 8044 Revision 05, the new strategic war plan that entered into effect on 1 October, 2004, and other plans.

OPLAN 8044 Revision 05 was the first significant update to the national war plan since Revision 03 and was described as a «major revamping» of the plan. General Myers later told Congress that the new plan «provides more flexible options to assure allies, and dissuade, deter and, if necessary, defeat adversaries in a wider range of contingencies».\textsuperscript{16} Those options and contingencies were outlined in the NUWEP published in April 2004 and included, in addition to more tailored nuclear strike options, the integration of conventional weapons into the strategic war plan for the first time.

The strike options in OPLAN 8044 Revision 05 were exercised several times in 2005 and 2006, including during the Global Lightning 06 exercise in early November 2005. One month later, B-52H bombers at Barksdale Air Force Base in Louisiana and Minot Air Force Base in North Dakota conducted Global Strike alert exercises that involved rapid launch of the aircraft to test the Wings’ abilities to respond quickly to national directives. As the bombers taxied down the runways, teams from Joint Functional Component Command for Space and Global Strike (JFCC S&GS) were onboard the command ship USS Blue Ridge in Yokosuka Naval Base, Japan, and at Pacific Command headquarters in Hawaii to monitor PACOM’s ability to conduct short-notice contingency operations. More rapid launch bomber exercises were conducted in December 2005 and in April 2006.

The new centre for planning and execution of Global Strike is Joint Functional Component Command Global Strike and Integration (JFCC-GSI), which achieved Full Operational Capability in 2006. This unit essentially has responsibility for STRATCOM’s traditional nuclear planning as well as the still evolving options under Global Strike. Indeed, the Concept of Operations document for JFCC-GSI describes a responsibility for so significant portions of STRATCOM’s strategic planning that it is hard to see where Global
Strike ends and OPLAN 8044 begins. Rather than a separate mission, Global Strike almost appears to have become a common name for all STRATCOM effects planning with the limited options in what was known as CONPLAN 8022 absorbed into OPLAN 8044 as sub-plans. The result is a more adaptive and fluid plans architecture.

Nuclear force structure developments
Guidance translates into requirements for nuclear weapons. Over the years, the composition of the nuclear forces structure has fluctuated considerably as guidance and strike plans changed (see figure 2). Whereas the size of the total stockpile peaked in 1967, the strategic force loading continued to increase for two more decades before finally peaking in 1987.

The reduction in the stockpile during this period was largely due to the retirement of large numbers of non-strategic nuclear weapons, a category that peaked at more than 24,000 in 1965. By the late 1970s, non-strategic warheads had declined to less than half, and the withdrawal of non-strategic nuclear weapons from overseas and naval forces in 1991–1993 and subsequent destruction of most of them further reduced this category of weapons to less than 2,000 by 1997. Since then, the number of non-strategic nuclear warheads in the stockpile has remained fairly constant.

While the total number of warheads in the Defense Department stockpile has declined from nearly 18,000 in 1991 to approximately 9,900 today, the size of the stockpile has been fairly stagnant since 1996. In fact, the post-Cold War period between 1996 and 2008 is one of the most stable periods in the history of the stockpile size. During the same time period, the strategic force loading has continued to decline, since 2001 as a result of the withdrawal of the MX/Peacekeeper missile and four strategic ballistic missile submarines from strategic service.

The Bush administration announced in 2004 that this stockpile will be cut nearly in half by 2012, leaving an estimated 5,450 warheads in the stockpile by then. On 18 December, 2007, the White House declared that this reduction would be moved up five years and implemented by the end of 2007 and that an additional 15 per cent of the stockpile would be cut by 2012. The initiative formally transferred roughly 5,000 warheads from the DOD stockpile to the Department of Energy, although actual destruction of the weapons will not be completed until 2023. As a result, by 2012 the force level initially envisioned by the 1997 Helsinki Agreement (START
III) and codified in the 2002 Moscow Treaty will have reduced the strategic force loading to no more than 2,200 operational warheads with more than 2,000 warheads in reserve and about 400 non-strategic warheads.

Figure 2. U.S. Nuclear Stockpile, Strategic Force Loading, and Guidance, 1945-2012

The U.S. nuclear force structure has fluctuated significantly over the years in response to nuclear employment policy guidance, with the size of the total stockpile and strategic force loading following opposite trends between 1967 and 1988. The period after the end of the Cold War has seen a better match, but also one of the longest periods of a stagnant nuclear stockpile.

In parallel with these reductions, to ensure the indefinite reliability of nuclear weapons, the Bush administration has proposed to resume industrial-scale production of nuclear weapons. The first of this is known in public as the Reliable Replacement Warhead (RRW), or WR-1 officially. The administration has proposed to begin production in 2014 to supplement the W76 and W88 warheads on the Trident II sea-launched ballistic missile and potentially produce replacement warheads for the other major warhead types in the enduring stockpile. Development and production would not require live nuclear testing.

RRW production is also being offered as a way to permit nuclear warhead reductions below the levels envisioned for 2012. By building a new warhead production facility, so the argument goes, the United States would not have to retain as many warheads in reserve to safeguard against technical failure, which in turn could allow retirement of the excess reserve warheads. Congress approved
Conclusions
Despite the end of the Cold War, U.S. nuclear planning remains dynamic and sizeable. Russia remains the focus of day-to-day planning and targeting requirements as a consequence of its sizeable nuclear arsenal. The strategic assessment of China has been elevated to a near-peer category due to its modernisation of its long-range ballistic missiles, and the United States has started reorienting parts of its strategic assets toward the Pacific region in response. Furthermore, regional states pursuing weapons of mass destruction have risen to the status of full strategic adversaries.

As a result of these continuing requirements, the reduction of the number of operationally deployed nuclear weapons has led to new requirements for significant improvements in the flexibility of the nuclear war planning system and the weapons themselves. Adaptive planning capabilities, rapid retargeting systems and «grooming» of the weapons themselves to make them more efficient against different types of targets or tailor them to specific targets have led to a dramatic improvement in the lethality of the nuclear posture.

Promises to reduce the reliance on nuclear weapons in U.S. national security through the creation of a «New Triad» have only been marginally successful. Rather than visibly replacing nuclear weapons, conventional weapons and missile defence systems so far appear to have been used largely to complement the nuclear posture. Since all the legs of the New Triad have to be credible anyway, it is perhaps not surprising that progress to reduce reliance on nuclear weapons has only been modest at best. Official statements continue to reaffirm the importance of nuclear weapons to U.S. national security. Although there is now a strong push in the U.S. Congress to once again review nuclear policy, there will also be significant resistance to cutting too deep and changing too much. The political development in Russia, the «rise of China», and the fear of proliferation of weapons of mass destruction will likely be used by some to argue for a strong nuclear posture second to none.

In its justification for the RRW, the administration has turned the original objective of a ban on nuclear testing - to prevent new nuclear weapons development and production - on its head. Now, production is said to be necessary to avoid nuclear testing. And al-
though formal RRW production appears— for now— to have stalled in Congress, other «replacement» warheads are likely to emerge in the future under other names.

Part of the responsibility for these developments lies, of course, in Washington and the capitals of the other nuclear weapons states that play the nuclear deterrence game. But an important share also lies with the allied non-nuclear countries, which by and large have relinquished their former strong push for nuclear disarmament of the 99 per cent of the world’s nuclear weapons and instead have joined the quest of the nuclear weapons states in preventing «rogue» states and terrorists from getting the remaining 1 per cent. Absent any meaningful political cost from continuing their nuclear posturing, the nuclear weapons states instead have turned their attention to openly extending their nuclear status indefinitely.

Perhaps the best example of how excessive and resilient the current U.S. nuclear posture is, is that when all the planned reductions have been implemented by 2012, the U.S. nuclear weapons stockpile will still— nearly a quarter of a century after the Cold War ended— be 15 times greater than when National Security Council Paper 68 (NSC-68) in 1950 outlined the U.S. justifications for a rapid and massive military build-up to contain the Soviet Union.21

Notes
1 In addition, nuclear strike plans increasingly incorporate non-nuclear effects, such as advanced conventional weapons, cyber attack capabilities, and Special Operations Forces.
   The content of the NPR was first disclosed in an article in the Los Angeles Times in March 2002 and excerpts subsequently posted on the globalsecurity.org web site.
8 Memorandum, J. O. Ellis, Admiral, U.S. Navy, Commander, U.S. Strategic Command, to the Chairman of the Joint Chiefs of Staff, «USSTRATCOM Request to Change the name of the Single Integrated Operational Plan (SIOP) to Operations Plan 8044», January 3, 2003. Obtained under FOIA.
9 Memorandum, Richard B. Myers, Chairman of the Joint Chiefs of Staff, to the Commander, U.S. Strategic Command, «USSTRATCOM Request to Change the Name of the Single Integrated Operational Plan (SIOP) to Operations Plan (OPLAN) 8044», CM-757-03, February 8, 2003. Obtained under FOIA.
11 The Bush administration’s pre-emption doctrine is described in the National Security Strategy of the United States of America and the National Strategy to Combat Weapons of Mass Destruction, published by the White House in September and December 2002, respectively. For the New Triad and tailored deterrence, see: Department of Defense, Quadrennial Defense Review, February 6, 2006, pp. vi, 27, 49.
15 For a description of the cancellation of Doctrine for Joint Nuclear Operations, as well as profiles of the different versions of this document, go to http://www.nukestrat.com/us/jcs/canceled.htm
18 The U.S. stockpile peaked at roughly 32,062 warheads in 1967.
20 Robert S. Norris and Hans M. Kristensen, «U.S. Nuclear Weapons, 2008», Nuclear Notebook, Bulletin of the Atomic Scientists, March/April 2008. Because the administration’s priority in the next decade and a half is life extension of the «enduring stockpile», dismantling the backlog of retired warheads is not expected to be completed until 2023.
The Military Power Seminar 2007

Nuclear Weapons in the 21st Century

Old Players, New Game
– New Players, Old Game

Magnus Eriksson and Kari M. Osland [eds]