

# DANGEROUS

By William M. Arkin & Hans Kristensen

**E**VEN IN THE THROUGH-THE-LOOKING-glass world of nuclear deterrence, the current situation is bizarre: Although the United States and Russia are friends, and are both cutting back the numbers of strategic weapons, the United States is more able than ever to deliver a devastating, decapitating, first-strike blow against Russia, should U.S.-Russian relations ever sour.

Russian nuclear survivability is not assured, creating—at least on paper—a uniquely dangerous hair trigger.

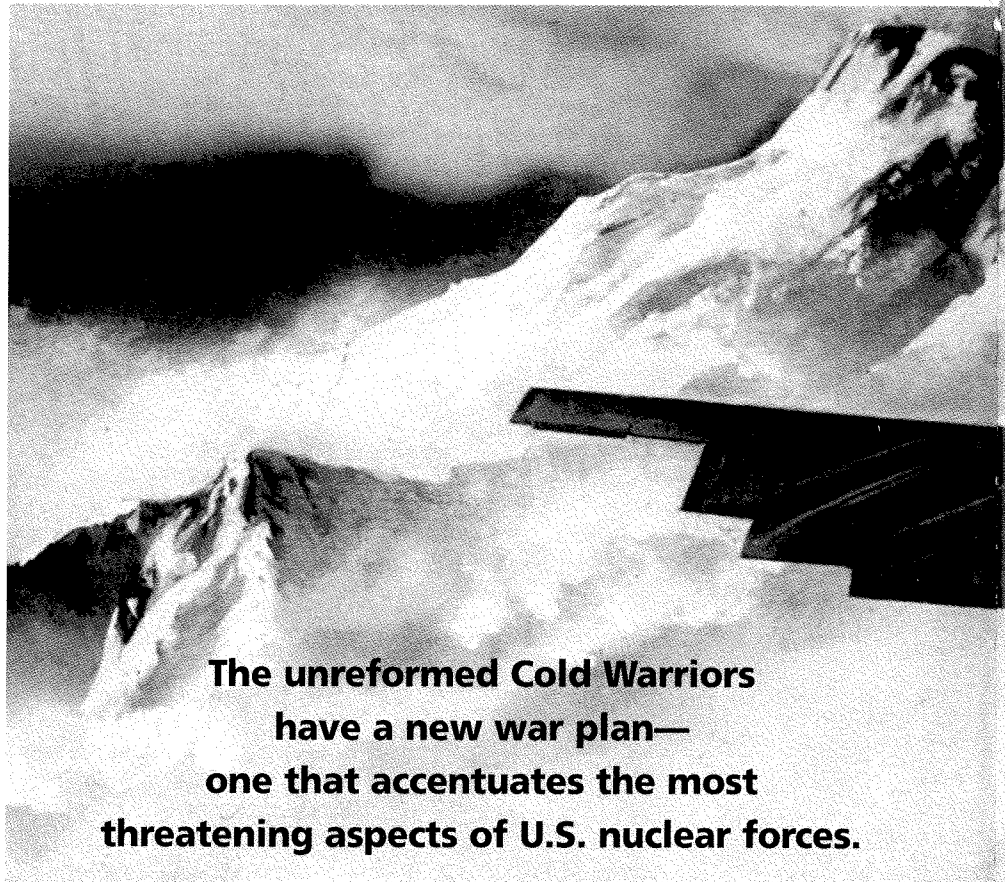
After several rounds of nuclear reductions and almost a decade of declared peace, how is it that U.S. strategic nuclear forces have been enhanced rather than diminished?

The answer is partly Russia's inability to fulfill the unwritten contract underlying U.S.-Russian strategic arms reductions—that both sides maintain high levels of alert.

Russia's day-to-day nuclear readiness is miserable. Its missile force is in a state of flux, with even its land-based missiles severely challenged by technological weaknesses and insurmountable maintenance problems. Its mobile forces—particularly its SS-25 road-mobile missiles and its ballistic missile submarines—are at a virtual standstill. Apparently flawed, Russia's newest submarines, those of the *Typhoon* class, are being prematurely retired. The intercontinental bomber force is essentially nonexistent.

Russia cannot afford to modernize its nuclear forces, and thus faces the physical reality of forced disarmament. The imbalance vis-à-vis the United States will grow wider after the turn of the century, as the majority of Russia's current systems reach the end of their service lives.

Only in the nuclear world could



**The unreformed Cold Warriors  
have a new war plan—  
one that accentuates the most  
threatening aspects of U.S. nuclear forces.**

Russia's difficulty in sustaining its ability to destroy us be alarming. But in arms-race theology, imbalance and disarray equal instability, which leads to real concern in Washington about fragile command and control and the inadvertent or mistaken launch.

On the other hand, the United States did not just stumble into this most fortunate of unfortunate states of superiority. It has an arsenal of superior and newer weapons: the B-2 bomber and the super-accurate MX and Trident II missiles and associated high-yield warheads. And it has postured its forces and rewritten its war plans in ways that accentuate all of the

most demanding and threatening aspects of strategic balance.

Russia's vulnerability is undoubtedly the underlying reason why START II remains unratified in Moscow and strategic arms reductions falter. Rather than immediately taking measures to reduce the threat today and eliminate the Cold War treadmill, the Clinton

---

*William M. Arkin is a Bulletin columnist and contributing editor and a consultant to the Natural Resources Defense Council. Hans Kristensen is an independent analyst and a member of the Danish Defense Commission, a government advisory group.*

# Directions



U.S. AIR FORCE

administration has responded by offering a variety of incentives—detracting, dispensation to allow Russia more time to implement its current obligations, further numerical reductions—that merely facilitate maintenance of the comfortable old war-fighting posture, albeit at lower numbers.

But that is not the whole story.

The foremost incentive has been offered to U.S. nuclear war-fighters, who were enlisted to design for themselves the combination of lower force levels, doctrine, and procedures that would allow a reduced nuclear force to focus

ever more on a disarming blow against Russian nuclear capabilities, command, and society.

## A new guidance

In early 1997, seeking to persuade the Russian parliament to ratify the START II Treaty, the White House offered to further reduce warhead numbers to some 2,000–2,500 per side, a design that would allow Moscow to plan and prepare for deep cuts and avoid having to spend vast sums to maintain higher force levels.

Whether these numbers, offered at the summit in Helsinki, will result in the coveted ratification remains to be seen. But as the administration debated lower numbers in 1996, American generals and war-fighters argued that they could not go to lower numbers if they were to fulfill Ronald Reagan's still-operative nuclear guidance of 1981. In response, the Clinton team simply decided to update the guidance.

An extremely small group—led by Robert Bell of the National Security Council and Franklin Miller in the Pentagon—devised a new formulation of nuclear deterrence that would permit warheads to be reduced to START III levels. In contrast with the acrimonious Nuclear Posture Review of 1993–94, agreement was easily reached—no bureaucratic fighting among task forces, no full-blown re-

view, no study panels, and no leaks. Clinton secretly signed Presidential Decision Directive 60 (PDD-60) in November 1997.

The reason for quick agreement is now clear: The war-fighters had already designed a flexible force and a planning process that would seem to accommodate whatever guidance might issue from the presidential pen.

For seven years, as each new commitment to arms control reduced warhead numbers, the war-fighters had been happily, and in some cases unilaterally, stripping the Cold War plan of its obvious excesses. They improved planning and targeting, and they refocused the U.S. strategic nuclear arsenal on what had been its most demanding task since the Kennedy years—maintaining the capability to destroy Russia's nuclear capacity, leadership, and command and control.

Had the president's new guidance unambiguously directed war planners to structure U.S. forces so they would be secure enough merely to deliver a retaliatory blow and not actually have the ability to destroy all of Russia's forces, it would have meant real post-Cold War change.

Instead, the new directive is most notable for eliminating the old requirement that the United States must prevail in a protracted nuclear war. "In today's world," says U.S. Air Force Gen. Eugene Habiger, commander-in-chief of Strategic Command (STRATCOM), "that guidance makes sense." What Habiger is sanguine about is that at the same time the new guidance also endorses the war-fighters' new World War III-type posture. That posture, which includes unprecedented accuracy, streamlined targeting, and rapid retargeting, keeps 3,200 nuclear warheads on constant alert today, focused ever more precisely on Russian nuclear might rather than the grandiose Cold War task of destroying the entire Soviet Union's military and civil infrastructure.

## Manipulating Washington

The story behind today's more dangerous posture shows how nuclear advo-

cates and unreformed Cold Warriors managed to manipulate nuclear policy for seven years, codifying a more flexible and adaptable nuclear war plan, one that now accentuates the most threatening and destabilizing aspects of nuclear forces. By eliminating unnecessary targets, war planners have been able to more finely focus on enemy decapitation.

In October, as the president's new nuclear guidance was being finalized, SIOP-98 (the "Single Integrated Operational Plan"), the latest in a long line of periodic plan updates, was introduced. But war planners at STRATCOM in Omaha also knew that it would be the last true SIOP, slated to be replaced by

## The new guidance keeps 3,200 nuclear warheads on constant alert.

a completely new plan.

Their new design is actually a set of plans or options for using American nuclear forces, ranging from a demonstration attack with a single weapon to a half-hour spasm of more than 600 missile strikes, embracing almost 3,000 warheads.

This design does not reflect the world's political changes, nor did it come about because the president has revised the concept of deterrence. Instead, it is the product of vast improvements in computer processing that allow near-instant retargeting of far more accurate and flexible weapons, which were introduced in the 1980s.

Nicknamed "the Living SIOP," the new scheme is the result of a reform process that began in 1989, when Defense Secretary Dick Cheney ordered a review of nuclear targeting. At the end of the Cold War, the number of Russian targets in the SIOP was 12,500, and increased "damage expectancy" and the demands of promptness had resulted in a constant cry for more weapons and improved capabilities.

As a result of that review, in January 1991 Cheney directed a reduction in the number of warheads to be included in various attack options, and he called for targets to be reduced by 2,500. Even so, Cheney's directive was virtually obsolete by the time it was issued.

It was simply outpaced by a series of fast-moving events. All the targets in Eastern Europe had evaporated. And in 1991 President George Bush had announced significant unilateral initiatives, to which the Soviets had responded in kind. When SIOP-93 was implemented on June 1, 1992, targets had been reduced by nearly 40 percent. The focus was already moving more and more toward nuclear forces and supporting command and control.

In early 1992, Cheney brought together the Defense Policy Board (DPB) Task Force (also known as the "Hoffman panel"), which was charged with broadly reexamining U.S. nuclear policy. The panel was expected to provide the foundation for revising the still-active Reagan directive of 1981 (NSDD-13). But before the panel's work could be translated into substance, the campaign season and a change of administrations intervened. Les Aspin, the new defense secretary, decided instead to initiate the Nuclear Posture Review (NPR).

## The master plan

Meanwhile, Gen. Lee Butler, then commander of STRATCOM, began his own unilateral review process. Applying "nodal" or network analysis, STRATCOM was reducing targets by the hundreds, shifting the focus of attack to the interlinked capabilities of communications, electrical power, and other networks, rather than to their individual elements. It was a reform specifically intended to reduce the gross number of targets without a change in national guidance.

As 1993 came to a close, war planners focused on how to respond to Russia's arsenal of mobile missiles (road-mobile SS-25s and rail-mobile SS-24s). The difficulty in locating Iraqi Scud missiles during the 43-day Gulf

# Strategic forces, today and tomorrow

For the past three decades, nuclear planners have taken comfort in the notion of mutually assured destruction. That is, both the United States and the Soviet Union (now Russia) have the ability to destroy the other with nuclear weapons, no matter who struck first. Despite certain right-wing delusions in the 1970s and 1980s, neither the Soviet Union nor the United States ever had the ability to strike first and survive. Retaliation would be massive. Given that, nuclear stability reigned, even in times of high tension.

But since the demise of the Soviet Union, the United States has acquired more of a theoretical first strike capability. That is a function of numbers of weapons, their ac-

curacy, and reliability—and most important, the number of targets. (And by “targets,” we principally mean weapons of intercontinental range.)

If present trends continue, the number of first-strike targets in Russia will so diminish under START II that the United States could launch a preemptive first strike with high confidence.

It is hard to imagine any scenario in which the United States would launch a first strike. But it is just as ridiculous to sit with such a posture in place. Not only is it a recipe for disaster, but the unchanging force undermines any incentive for Russia to ratify START II.

## ICBMs

U.S. intercontinental ballistic missiles (ICBMs) have been reduced from 1,000, armed with 2,550 warheads, to 550 missiles with 2,050 warheads, a reduction of just 19 percent. When the 50 MX missiles are retired under START II, the ICBM force will shrink to 500 Minuteman III missiles upgraded with MX warheads and reentry vehicles. This will provide “Peacekeeper accuracy” through at least the second decade of the twenty-first century.

## Ballistic missile submarines

The U.S. ballistic missile submarine (SSBN) force has been reduced from 32 submarines armed with 584 missiles and 5,024 warheads to 18 submarines carrying 432 missiles with 3,456 warheads. In 1990, 23 of those subs dated from the 1960s. In contrast, today’s fleet consists entirely of modern *Ohio*-class submarines. The Trident I missile, upgraded to provide a “moderate” hard-target kill capability, is being replaced entirely by Trident II D5 missiles, which are capable of destroying the full spectrum of targets. Trident IIs will be armed with 384 W88 high-yield warheads. Even with the older W76 warhead, they are still highly capable. Hard-target warheads will increase from eight percent in 1990 to 26 percent under START II.

## Bombers

The U.S. operational bomber force consists of 92 aircraft armed with 1,800 modern warheads and cruise missiles.

## After START II

At current alert levels, the United States maintains a robust short-warning first-strike capability. When current reductions and upgrades are completed under START II (in the 2007 timeframe), it will retain 900 warheads with hard-target kill capability.

Russian ICBMs have declined from 925 missiles armed with 5,575 warheads to 755 missiles with 3,590 warheads, a warhead reduction of 36 percent. After eliminating SS-18 and SS-24 heavy ICBMs (64 percent of the existing force), and retiring all but 170 SS-19s, Russia will have no more than 500–600 missiles, of which more than half will be mobile SS-25s. The number of Russian ICBM hard-targets will decline from 1,400 at the end of the Cold War to about 270.

The Russian SSBN force, never an equal leg of the Soviet triad, is currently estimated at 26 submarines armed with 440 missiles and 2,272 warheads. The number of missiles has been reduced by half, but the number of warheads has decreased only 16 percent. However, Russian submarines are at an all-time low in terms of readiness, spending most of their time in port. Russia will likely maintain 15 modern boats in the coming decade, eventually replacing the last *Delta* IIIs, built in the mid- to late-1970s, with the new *Borey*-class. Even if 10 *Boreys* are produced, the SSBN force will shrink to as few as four to 12 boats.

Nearly half of Russia’s 113 bombers are located in Ukraine. None of the force, wherever located, is believed to be in a state of day-to-day readiness. When not on alert, the Russian bomber and strategic submarine force probably present less than a dozen targets. There is no known modernization program.

The Russian force in its START II day-to-day configuration will likely represent some 300 targets. Even adding supporting command and storage, there will be fewer than 500 targets.

War demonstrated that the best solution was to destroy mobile targets before they had an opportunity to disperse. And it demanded survivable weapons able to be rapidly retargeted as intelligence identified new locations. A lengthened World War III was born.

It was virtually an incantation at this point that no more reductions could be made and still meet the requirements of “the guidance.” Nor did the Clinton administration seem particularly interested in revising U.S. deterrence policy, which demanded a grandiose guaranteed destruction of Russia’s nuclear forces, command and control, industry, and conventional forces. But many, such as General Butler, still thought that the war plan could be made more rational through planning reform.

In November 1992 Butler had directed the formation of an internal STRATCOM Strategic Planning Study Group. Its goal was to reduce the time needed to develop new plans and to make planning “responsive and flexible to meet current and future planning needs.” According to the STRATCOM history, the group would focus on the post-Cold War need “to adapt the war planning process to rapid modifications in guidance.”

Meanwhile, the new administration had begun to echo a perennial Washington complaint—that strategic planners had effectively excluded both civilian and other military policy-makers from the details of nuclear war plans, and that they read into the national guidance whatever they chose, allowing them to retain never-changing first-strike options. A small “Nuclear Planning Working Group” was established in the defense secretary’s office to attempt to reform the process from the outside.

But the problem went well beyond a simple case of insubordination: The choreography of nuclear war-fighting was so complex that few outside STRATCOM’s Omaha headquarters were in a position to challenge its claims about “required” readiness, synergy, or military capacity. And by staying firmly in control of all the analytical tools,

STRATCOM could deflect any of Washington’s proposed changes.

While the defense secretary’s working group studied the war plan, STRATCOM’s group charged ahead with its revision. It mapped and charted and consolidated functions and designed new systems to comprehensively modernize a process that had become inefficient over the years. But its main innovation was the recommendation that a “living SIOP,” a less rigid and more adaptable system, be created.

According to the group’s final declassified report, the new plan “would be maintained on a daily basis in response to changes to targets, forces, and . . . guidance.” Until the need for an entirely new plan was identified, the existing plan would be re-optimized continuously, with no prescribed revision date. If a new national guidance had to be issued, a totally new SIOP could be “rolled forward . . . eliminating the need for and time involved in replanning.”

As General Butler explained in 1993, the basis for the living SIOP was “adaptive planning,” a flexible process that used “generic targets, rather than identifying specific scenarios and specific enemies, and then crafting a variety of response options to address these threats.” To maintain the war-fighting choreography called for under various levels of alert, another innovation—the “stable nucleus”—was introduced. This was defined as “a core set of targets and special attacks that do not change substantially over time, thereby eliminating the need, and the time involved, in making major changes.” The stable nucleus was, of course, the same old “counterforce” targets—Russia’s strategic nuclear forces and leadership. Reductions could now be accommodated as long as the stable nucleus was not threatened.

General Butler approved the living SIOP concept on July 6, 1993. Over the next year, STRATCOM worked to develop the new system, and by December 1994, the process was sufficiently in place to propose an actual model war plan to replace SIOP-95. Who could argue with greater flexibility and adaptability?

Meanwhile the Nuclear Posture Review had foundered. STRATCOM anticipated and headed off any idea of true reductions and thwarted any attempts to eliminate the triad of forces. After the June 1992 Washington Summit Agreement, STRATCOM produced a study of future force postures that analyzed the number and combinations of forces required for START II implementation and beyond. The top-secret “Sun City” study focused on the amount of capability and war-fighting flexibility that would be lost at different levels. It looked at nine different force structure options, six at the START II limit of 3,500 accountable warheads, and three “well below” 3,500 weapons.

The study’s core assumption was that an unchanging counterforce capacity was required. A “penalty for capability lost” was assigned to various lower force structures, and those options were then deemed unacceptable. The force with the highest capability and flexibility became the only choice. It is not surprising that STRATCOM’s “preferred” force structure was eventually recommended by the Nuclear Posture Review.

## Getting even more

But it was not just with regard to force structures that the war planners got their way. STRATCOM also lobbied successfully for programs that would continue to heighten the capability of U.S. nuclear forces. For instance, when funds for the Minuteman III propulsion replacement were cut from the 1994 budget, STRATCOM claimed that the cut would jeopardize “continued Minuteman reliability.” But the issue actually concerned the “age-out” of a small portion of Minuteman IIIs during a six-year period after the year 2003. By accelerating propulsion replacement, the entire missile force, not merely 70–80 percent, could stay on alert.

War planners also maneuvered a \$2.7 billion “Phase 2” guidance improvement effort to increase Minuteman missile flexibility and attain “Peacekeeper accuracy.” Phase 2 antic-



