

The Nautilus Institute Nuclear Strategy Project: The Sun City Study

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After the signing of the START II treaty in January 1993, the Clinton administration's goal of further cutting the military budget and the Bottom-up Review prompted STRATCOM to conduct a study of alternative force structures. The study examined nine different force structures, six of which were at the 3,500 START II accountable limit. Option 1 was the "preferred" force level briefed to the Secretary of Defense in November 1992. The other three options fell "well below" 3,500 weapons.

The main objective was to "capture the effectiveness" of each force structure option in its ability to hold the threat at risk, its planning flexibility, and its affordability. STRATCOM's core concern was to evaluate -- from the warfighter's perspective -- the impact of few, heavily MIRVed platforms (term used loosely to indicate concentration of weapons on a platform) versus many, lighter MIRVed platforms, and the ability to effectively plan the forces. In doing so, STRATCOM relied on the "rules of thumb" developed in the Phoenix Study to calculate the number of weapons required for a given number of installations.

STRATCOM decided to assign a "penalty for capability lost as compared to Option 1," its own preferred START II force structure from November 1992. Changes to the mix of the Triad, for example, were assigned penalties for degraded flexibility and capability compared with Option 1. Not surprisingly, Sun City therefore found that it was undesirable to cut too much and that the preferred force structure was the most capable. The smaller force structure options (and target sets) were analyzed mainly for "parametric purposes," because STRATCOM considered them useful in "realizing the magnitude of the force structure required for smaller target sets" (for example China and rogue states).

The bottom line was that Option 1 remained STRATCOM's preferred warfighting force structure to implement START II because it provides the most capability and flexibility for all criteria examined. Sun City concluded that strategic nuclear forces "led the way during the cold war, brought an end to that confrontation, and continue to lead now." It cautioned against further reductions saying "we've already paid at the bank" in reduced force structure and modernization by a 2-to-1 margin. Overall recommendations for the force structure were:

- Flexibility and capability of the Triad are paramount, especially in light of the thinning target base.
- The size of the force must be sufficiently capable against a range of threats;
- The mixture of bombers, ICBMs, and SSBNs must retain flexibility and capability;
- The force must be affordable.

Sun City not only validated the targeting principles of the 1991 Phoenix Study and became the basis for implementing

START II, it was also the force structure that STRATCOM would subsequently promote during the Nuclear Posture Review conducted from October 1993 through September 1994.

A declassified copy of the Sun City report is available in the right hand bar. Due to its size (60 pages), the document has been split in two PDF-versions.

Summary report

"The Matrix of Deterrence"

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