
Military Implications

U.S. strategy: unprepared for the era of beam weaponry

by Dr. Steven Bardwell

The current debate over the military impact of the Space Shuttle began by assuming that the United States has a strategic military posture. This is untrue. The “doves” contend that the Shuttle is at best a waste of money and, more likely, a dangerous escalation of the arms race; the “hawks” take the position that the Shuttle is a military vehicle usable for countering Soviet military expansion. Both arguments begin from the old—and now outmoded—premise of a balance of intercontinental nuclear artillery constrained by a technological reality of mutually assured destruction (MAD).

Neither that balance of nuclear power nor the constraint of MAD exists any longer. We are entering a new military and strategic calculus, soon to be centered on the ability to destroy an adversary's missiles in the air, and defined by a new set of technological frontiers of which the Space Shuttle is but the harbinger. Unfortunately, the debate that should be developing this new U.S. strategy for the 1980s and 1990s has yet to begin.

The current predicament

The period from 1978 through the early 1980s demarcates a crucial conjuncture in the world military-strategic predicament. During these five years the military balance as measured by old standards is shifting from the United States to the Soviet Union; and, during the same five years, the technologies that defined the old military equation are being outdistanced.

The story of the relative decline of the United States' military power has been told in exhaustive detail.¹ Since it is no longer a point of contention for any participants in the strategic debate, let it be taken for granted. However, the developing technological situation is not so well known.

In the past two years, there has been a fundamental change in the nature of strategic nuclear war. This change involves two components: first, both the Soviet Union and the United States now possess an arsenal of nuclear armed missiles with essentially infinite accuracy. Using satellite guidance systems and sophisticated com-

puters, these missiles can be targeted within a few hundred feet of their objective after traveling thousands of miles. Since there is no known method for defending any target against a direct hit by a large nuclear explosive (past passive systems were designed for protection against the blasts occurring one-half to several miles from the target), this new level of accuracy means that there is no passive defense system capable of protecting missile silos, airfields, industrial concentrations, or other targeted objectives.

Secondly, superseding the MAD doctrine, there now exists on the drawing boards of U.S. laboratories, and in test facilities of the Soviet Union, a design for a directed energy beam weapon capable of destroying strategic nuclear weapons in flight. In the words of a Pentagon official: “[This weapon] has the potential of tipping the battle in favor of the defense for the first time in the history of nuclear warfare.” Edward Teller was recently quoted as saying that the latest step in the development of this weapon was the “most significant breakthrough in military technology since the hydrogen bomb” was invented.²

Both these technological developments, whose implication is a qualitative change in the strategic doctrine that has governed warfare for the last 30 years, depend on the Space Shuttle and its associated technologies. The guidance and control systems for advanced targeting of intercontinental ballistic missiles or cruise missiles use satellite positioning. The Space Shuttle and the beam weapon make this satellite-based surveillance and guidance practical, and relatively cheap. Similarly, the large number of small satellites required to implement a credible beam weapon antimissile system can only be practically launched with the large payload and low cost of a reusable space vehicle like the Space Shuttle. It is not so much that the Space Shuttle is a military machine itself; it is an essential part of a broad front of technological developments in computers, space travel and high-energy physics that are now under development, and whose cumulative impact is to revolutionize

military strategy.

The conjunction of these two processes creates a singular point for strategic policy-making. The United States has two options: we can pretend that the technological equation has not changed and attempt to come to terms with the growing Soviet dominance, or we can embark on the exploration of the new frontiers opened up by the Space Shuttle. The first option is certainly hegemonic in policy-making circles today and, in fact, is the common starting point for both "sides" in the never-ending debate over MAD, nuclear proliferation, arms control, and the rest.

It is essential to understand that both the hawks and doves are in fundamental agreement on the two facts, one irrelevant and the other false. Both concur that the Soviet Union is rapidly overtaking, or has already overtaken, the United States in military power (true but essentially irrelevant) and, that this balance of power must be dealt with on its own terms. Of course the hawks and doves differ about how to redress this balance, and their disagreement, while illuminating, should not obscure the more basic point: both believe that technological innovations are alternately dangerous, unlikely, or too expensive and can be put aside in assessing the military situation:

The dove position holds that total nuclear war is unthinkable, unwinnable, and certainly unpleasant. To quote them:³

Nuclear war, once begun, is likely to create a disaster of such magnitude that it is not meaningful to plan in terms of its actual occurrence. It makes little difference how things will be "after" the attack, as there will be no viable civilization remaining for either us or the Soviet Union. There will be no winners and the living will envy the dead. No *meaningful* civil defense is possible. Nuclear superiority is meaningless and impossible. The notion of "winning" strategic approaches is outmoded, dangerous and irrelevant to nuclear conflict.

This position has become less and less fashionable as its proponents now find themselves on the short side of the nuclear balance. Yet this current of thinking has devised some ingenious arguments—it has now concluded that military weakness may be the source of strategic strength:⁴

Unless either a true first-strike capability or a virtually leakproof defense becomes technically possible, that basic relationship [of mutually assured destruction] is not going to change. Thus, the central reality of MAD is *enforced by technology*. Consider the currently popular scenario of a *limited Soviet counterforce strike* that essentially

destroys the U.S. land-based intercontinental ballistic missile (ICBM) force. Some claim that the United States would be forced to choose between surrender and national suicide, that is, by attacking Soviet cities with our residual forces and expecting a response in kind. Nonsense! If "surrender" means literally that—giving up political control or making any concession fundamental enough to risk continued existence of the United States as a sovereign state—no foreign leader could blithely assume that the United States would simply give up because it had lost part of its strategic force. One perfectly effective political response by the United States to this particular Soviet attack might be to do nothing. The Soviet strategy would have failed. Suppose the idea of the Soviet attack is to extract a lesser concession on some peripheral issue. By simply refusing to make whatever concessions the Soviets demand—concessions that the Soviets could not *force* the United States to accept—the United States wins again. It is therefore the *weaker* side that controls the rules. And it is the weaker side that ultimately decides how the quarrel will be settled. In brief, it is only if the weaker side is willing to concede that the additional weapons of the other are worth something politically that they are. In fact, the only certain way that Soviet strategic power can have political value in these peripheral conflicts is for the United States to concede that it does.

For the doves, arms control then becomes predominantly a means to accomplish the larger end of technology control. Advancing technology, especially at the frontiers of the physics of high-energy densities (space technologies, directed energy beams, and nuclear fusion), by its very nature, destabilizes this military balance, and the development of these technologies is opposed in principle. The focus of SALT III is control of these new technologies much more than it is weapons control. The fear of these new technological developments has become the crux of their perception of the current national situation. A spokesman for the Office of Technology Assessment, a stronghold of the dove tendency, put it succinctly:⁵

Our being behind the Soviets is just proof of the fact that we have a free market economy. That's the price we pay for a free market economy. The Soviets and the Japanese have a planned economy and we don't want that, because it's like Nazi Germany. A planned economy would be worse than being behind the Soviets.

The opposition to the Space Shuttle emanating from this quarter is not unique to the Space Shuttle—they

oppose it because it represents new technology.

Ironically, the nominal opponents of the doves, Secretary of Defense Weinberger, Undersecretary Fred Iklé, and their cothinkers, share the same fundamental anti-technology bias. They too argue as if military strategic questions are addressable in terms of existing technologies. They differ only in that they propose a buildup of these existing weapons to match the Soviets—a classic “in-width” expansion of the U.S. military. The Weinberger budget (analyzed in detail in *EIR* March 24 and March 31) plots a course of triple disaster for the United States:

1) **A game of military catch-up.** Trying to match the Soviets piece-by-piece in armor, aircraft, and manpower is absurd when the technological rules are changing. Of course, such military hardware and manpower should be funded at greater levels than today, but *this is not a military strategy.*

2) **Assured economic destruction.** Careful econometric studies show that a military buildup of this kind would destroy the U.S. economy. The U.S. economy needs innovation, new technologies, and increases in productivity that can only come with an aggressive science research program. The Weinberger/Stockman budget selectively cuts the National Science Foundation, NASA, and advanced energy research because they are long-term investments. The military budget specifically downgrades the role of advanced research and development projects.

3) **A war over resources.** As some of the proponents of this position have recognized, a military buildup “in width” would run almost immediately into the problem of resource availability. New resources are created by new technologies, and conversely, a stagnant technological base forces an economy to rely on existing resources. Oil, for example, remains absolutely critical for an economy that has little or no nuclear investment. The unpleasant irony is that the United States under the hawk proposals would be pushed into fighting a war over resources, a war which we would lose for the same reason that we had to fight in the first place—insufficient technological progress.

The content of the Weinberger/Stockman budget has now been elaborated into a military-strategic doctrine.⁶ This military outlook accepts the reality of MAD:

The officials said the plan sheds the concept that any war with the Soviet Union would probably be of short duration and settled by negotiation or enlarged into a nuclear conflict. Instead, they said, it envisions the possibility of a long conflict with conventional weapons in several parts of the world at the same time.

The new strategy would require investing huge sums of money in weapons and ammunition,

transport, equipment and supplies. It would also require a vast mobilization of support and revitalization of the defense industry, the officials said.

The administration would retain the long-standing reliance on strategic and tactical nuclear weapons as a deterrence, the officials said, but would strive to make the military command and communications apparatus invulnerable to nuclear attack.

To these military thinkers the Space Shuttle, along with fusion and beam weapons, is a tertiary consideration—useful as a cheaper way of launching satellites, perhaps a better platform for anti-submarine detection, or maybe a more secure communication facility, but not essentially different or distinguishable from any other space technology. These same planners have had to be forced to make every technological innovation for the past 20 years—they opposed the development of the ICBM; they opposed the research to perfect the ICBM; they opposed research on advanced penetration guidance at the highest levels of the Air Force for years; they continue to oppose it now; and they would today slow down research on beam weapons and the Space Shuttle.

The significance of the Space Shuttle

The Space Shuttle is our introduction to the technological innovations avoided so assiduously by both the doves and the hawks. Its strategic significance comes from its role as the centerpiece of a program of space exploration, advanced energy development, and technological innovation. In itself, the Shuttle is merely a large, long-range truck, but in the context of an aggressively funded, broad-based program of basic science research, capital investment, and forward-looking military deployments, the Shuttle appears in its true light. A properly conceived national military strategy is, in fact, not essentially military, but rather uses the military requirements of the country to address the problems of energy research, space exploration, industrial investment, and education. Such a program, in the end, creates the conditions of material abundance and progress that go a long way toward preventing war in the first place.

1. John Collins, *U.S.-Soviet Military Balance*, New York: McGraw-Hill, 1980.

2. *Aviation Week and Space Technology*, Feb. 23, 1981, page 23.

3. *The Bulletin of the Atomic Scientists*, April 1981, page 22.

4. Glenn Buchan (Institute for Defense Analysis), “The anti-MAD Mythology,” *The Bulletin of the Atomic Scientists*, April 1981, page 13.

5. Personal communication.

6. Richard Halloran, “U.S. Said to Revise Strategy to Oppose Threat by Soviets,” *New York Times*, April 19, 1981, page 1.