

NAVAL ARMS CONTROL

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The paradox of arms control is that, when you really need arms control, you can't have it; and when you can have it, you don't need it. As the cold war and the military competition between the superpowers fade, we should not fail to aggressively pursue arms control. I am probably preaching to the choir on this, but lack of fear and public apprehension should not lull us into missing an extremely important opportunity to construct a lasting security regime that can improve the prospects for peace in the long term, when our relationship with the Soviet Union might not be so cozy--or when some *other* power might prove to be a major concern. My fear is that, after START and CFE are ratified, the desire to push forward with arms control will not be sufficient to overcome the desire of the military services, laboratories, bureaucracies, and contractors to protect their programs, whether ships, bombers, or nuclear testing.

This is my first foray into the area of naval arms control, so I will try to keep my comments brief and qualified. Although there is much to know about navies and naval operations, there is little to know about naval arms control, for so little has been done in the past. Aside from the Washington and London naval conference between the two World Wars, the Incidents at Sea Agreement in 1972, and the restrictions on sea-launched ballistic missiles (SLBMs) imposed by the SALT and START agreements (and, to some degree, the limits on nuclear sea-launched cruise missiles (SLCMs) imposed by START), little has been attempted. The Soviet Union continues to try to interest the United States in naval arms control--and indeed may refuse additional limits on conventional or nuclear forces unless we do show some interest--but the United States has steadfastly claimed that it is not interested in restricting naval forces.

Before I discuss the types of naval arms control that might be in our interest, it is worthwhile to review the central goals of arms control, which have long been:

- 1) to reduce the probability of war;
- 2) to reduce the scope and destructiveness of war if it should occur;
- 3) to reduce the cost of deterring and preparing for war.

Our task should be to devise arms control proposals for navies that satisfy these goals. Since I will concentrate here on reducing the probability and destructiveness of *nuclear* war, I will add a fourth goal: naval arms control

proposals should not unduly constrain nonnuclear naval missions, especially those missions that are not related to the East-West balance, such as the Persian Gulf War.

There is now a consensus that the probability of calculated nuclear war in a bolt-from-the-blue or window-of-vulnerability attack, as well as the threat of such an attack to blackmail the United States, is extremely low. I believe that the primary threat has *always* been inadvertent or uncontrolled escalation during or crisis, coupled with the threat of preemption. Today we may also add the threat of unauthorized use of nuclear weapons, especially if civil war breaks out in the Soviet Union. Reducing the probability of war is therefore not a matter of improving our ability to deter calculated nuclear aggression, but a matter of eliminating preemptive and escalatory pressures during crisis, and of maintaining firm control over the use of nuclear weapons by the highest political authorities. We also would want to eliminate peacetime naval activities that could precipitate a crisis, and activities during a crisis that could precipitate war.

The second goal--limiting the scope and violence of war should it occur--is usually used to advocate policies of damage limitation. The problem is that many damage-limiting capabilities--e.g., preemptive first strikes on nuclear forces or command and control centers--run counter to the primary goal of preventing war, because they increase pressures to preempt. A more effective way to limit damage is to limit the scope of war by maintaining the ability to negotiate a quick end to hostilities. This means maintaining the control of top political authorities on both sides over their entire nuclear arsenals. Attacks on command and control might limit damage if they prevent retaliation entirely, but this is highly unlikely. It makes much more sense to work to limit the ability of each side to threaten command and control centers.

The third goal--saving money--is clearly subordinate to the first two goals. Many claim that arms control often ends up costing more rather than less, but this is rarely the case. In the coming years, it is likely that Congress may view saving money as the *most* important goal, and naval arms control could save tens of billions of dollars by preventing the construction on both sides of capabilities that will result in no net increase in security.

What specific proposals might fulfill these three goals, while not unduly constraining the power-projection capabilities of the United States in other parts of the world?

First, while START limits the number of SLBMs and SLBM warheads, it doesn't limit the counterforce capability of these warheads. The development of accurate SLBMs by the United States and the potential development of depressed-trajectory launches could greatly increase the counterforce capability of SLBMs, thereby decreasing the stability of the nuclear balance in a crisis. Accurate SLBMs could simultaneously threaten both soft area targets and hardened point targets, theoretically eliminating the synergy that currently exists between bombers (and future mobile missiles) and silo-based ICBMs.

[The synergy exists now because only ICBMs can threaten other ICBMs. If enemy ICBMs and SLBMs are launched simultaneously, then bomber bases will be destroyed but ICBMs can be launched in retaliation before enemy ICBMs arrive to destroy them. If ICBMs and SLBMs are launched so that they hit their targets simultaneously, then bombers will have enough time to escape from their bases. Accurate SLBMs remove this synergy by threatening both ICBMs and bombers with quick, preemptive destruction.]

The hard-target-kill genie is already be out of the bottle as the U.S. deploys the Trident II missile, and it may prove impossible to put the genie back in, barring a ban or strict limitation on the flight testing of ballistic missiles.

While a flight test ban would prevent the modernization of our ballistic missile forces, it would prevent the Soviets from developing a similar capability, and it could prove very useful in getting third-world countries to abstain from developing ballistic missiles. A reliable and proven depressed-trajectory capability can be thwarted by preventing depressed-trajectory tests, although a residual capability will remain without testing. Flight-testing restrictions could be an important part of reducing incentives for sea-based preemptive attack.

Ballistic missile submarines stationed close to shore also pose a problem of short-warning-time attacks; coupled with accurate SLBMs, this could lead to very quick attacks on the whole range of U.S. strategic targets. Keep-out zones for ballistic missile submarines might be able to prevent this, but how would one verify that ballistic missile submarines stayed out of the zones? One possibility might be to give each side a certain number of challenges each year to request that a particular submarine surface to demonstrate that it had not been operating in the keep-out zone. But would submarines always get the order to surface? Would surfacing, even if delayed in time somewhat, reveal sensitive information about submarine operations. And even if compliance with keep-out zones could be verified in peacetime, what assurance would one have that such restrictions would be obeyed in time of crisis or war? Violations of keep-out zones during a crisis might even

enhance the probability of escalation. Because of these problems, keep-out zones are not a very promising idea.

Until recently, SLBMs were considered by many to be the most stabilizing weapons on both sides. Since ballistic missile submarines are undetectable, they are immune to preemptive attack and therefore an opponent cannot hope to escape retaliation. And since SLBMs were inaccurate, they could not threaten ICBMs with preemptive destruction. Accurate SLBMs may undermine the second attribute, but the survivability of ballistic missile submarines remains nearly intact. While quiet U.S. ballistic missile submarines patrolling the open oceans are invulnerable, Soviet ballistic missile submarines patrolling in bastions such as the Sea of Okhotsk may not be. Indeed, the U.S. appears to have adopted a strategy whereby U.S. attack submarines would be sent into Soviet bastions early in a war to try to destroy Soviet ballistic missile submarines before a conflict went nuclear. The problem with the strategy is that, to the extent that the Soviet Union believes it might work, it increases Soviet pressures to escalate in other areas, or to start a nuclear war before they lose all their ballistic missile submarines. The Soviets have proposed keep-out zones for attack submarines or antisubmarine-warfare-free zones to limit this threat to their ballistic missile submarines, but these have the problems noted above--even if the U.S. kept out in peacetime, why would we keep out in wartime?

A much better way to limit the threat to Soviet ballistic missile submarines would be to limit the size of U.S. ASW forces--particularly U.S. attack submarines. If the Soviets made comparable reductions in its attack submarine force, the major threat to the U.S. navy and its ability to protect sea lines of communication would be reduced.

The threat posed by Soviet attack submarines is, after all, the main reason that the U.S. adopted the offensive strategy of going after Soviet ballistic missile submarines in the first place--so that Soviet attack submarines would have to retreat to bastions to protect their ballistic missile submarines. The motto on both sides now seems to be "the best defense is a good offense." The United States and the Soviet Union have developed highly offensive naval strategies that are not particularly stable.

Limits on attack submarines would force both navies to assume more defensive and more stabilizing postures. A limit on the number of submarines would be easy to verify, and since submarines take a long time to build, quick breakout is impossible. Since attack submarines have few legitimate roles in power projection, such limitations would not significantly constrain the capability of the U.S. navy to

carry out Persian-Gulf-type activities. But limits on attack submarines would involve much larger reductions for the Soviets than for the United States. I am sure that when the Soviets try to interest us in naval arms control, they are not looking for another way to reduce their forces relative to those of the United States. Aside from reducing the threat to their ballistic missile submarines, they are probably most interested in constraining the threat that U.S. surface fleets pose to the Soviet homeland, and they are probably less interested in constraining U.S. power projection capabilities in general.

In a recent article in *Arms Control Today*, James Lacy suggests that we might be able to trade the elimination of nuclear weapons from both surface fleets for a reduction to equal and lower numbers of attack submarines.

The Soviet Union is justifiably worried about the threat of nuclear attacks on the Soviet homeland from carrier-based aircraft and sea-launched cruise missiles. The U.S. claims that such naval nuclear weapons are tactical, not strategic, but long-range land-attack SLCMs clearly cross the line.

A complete ban on nuclear weapons on surface ships has many advantages. First, long-range land-attack SLCMs may be capable of surprise attack due to the extreme difficulty in detecting small, low-flying aircraft. And even if SLCMs are detected, the existence of both conventional and nuclear versions makes the attack ambiguous--and therefore dangerous. Opponents might hope that attacks with nuclear SLCMs could freeze us until we determine what type of warhead the missile is armed with, or worse, attacks with conventional SLCMs might be misinterpreted as nuclear attacks and trigger a nuclear exchange. Although SLCMs are slow-flyers, an attack on coastal command and control targets from nearby ships or submarines may be fast enough. While a SLCM attack would be extremely risky, they may represent the only plausible hope for a zero-warning-time attack on key command and control centers.

Second, political control is weakest for sea-based nuclear weapons, here and in the Soviet Union. To the best of my knowledge, physical controls such as permissive action links (PALs) do not prevent many of these weapons, such as nuclear ASW bombs and rockets, from being used by a commander to defend his ship. This, combined with the belief that the use of nuclear weapons at sea is not as "serious" as their use on land, may make unintended escalation most likely at sea.

And a shooting war will be much more difficult to terminate if the authority to launch nuclear weapons has spread throughout naval fleets. Although it is probably not an appropriate subject for arms control, PALs should be extended to

all naval nuclear weapons, especially now that the perceived threat of calculated nuclear aggression has subsided.

Third, by eliminating nuclear weapons from surface fleets, the U.S. would simultaneously eliminate an irritant in its relationship with Japan, New Zealand, India, and other countries that object to the presence of nuclear-armed vessels in their ports or coastal waters. And the navy's almost religious belief in the policy of neither confirming or denying the presence of nuclear weapons would become instantly obsolete. The U.S. would then have no reason to oppose the formation of nuclear-free zones, as it has in the past. Moreover, the verification of a nuclear-free surface fleet would be much easier than the verification of bans or limits on only certain types of nuclear weapons.

What types of nuclear weapons would be eliminated, and what are the reasons for having these weapons in the first place? Five types of nuclear weapons have been deployed on surface ships:

- 1) nuclear artillery;
- 2) nuclear air-defense missiles;
- 3) nuclear ASW depth bombs, torpedoes, and missiles;
- 4) nuclear bombs on carrier-based land-attack aircraft; and
- 5) nuclear land-attack SLCMs

Nuclear artillery have been eliminated from the navies of both superpowers, and the U.S. has replaced nuclear surface-to-air missiles with conventionally armed missiles. The U.S. is also rapidly reducing the number and variety of nuclear ASW weapons. Both the SUBROC and ASROC ASW missiles are being retired, and Congress canceled the replacement for the navy's nuclear depth bomb. In the near future, the U.S. surface navy will be left with perhaps 1,000 nuclear bombs on carrier-based aircraft and, according to START, no more than 880 nuclear SLCMs, both intended for land-attack missions. How important is the nuclear land-attack mission? The primary mission for land-attack nuclear naval weapons had been to support the NATO policy of flexible response. But now that the Warsaw Pact has all but dissolved, and with the Soviet Union having agreed to numerical equality in conventional weaponry, it is no longer necessary to threaten the use of nuclear weapons in response to a Soviet invasion. And in the event that the conflict does go nuclear, there appears to be no unique role for naval nuclear bombs or SLCMs.

It has also been suggested that SLCMs add to strategic deterrence because they are invulnerable to preemption when distributed among a large number of platforms. But the United States already has weapons that are invulnerable to preemption: SLBMs. Why do we need yet another set of survivable nuclear weapons at sea, especially when political control over such weapons is problematic? Some have suggested that SLCMs are more stabilizing than ballistic missiles because they are slow flyers and are therefore incapable of a first-strike, but this isn't at all clear if SLCMs are invisible to Soviet radars and are launched from ships or submarines close to coastal targets.

Finally, some naval officers have suggested that nuclear SLCMs are required to deter nuclear attacks by Soviet land-based aircraft on U.S. ships. To my way of thinking, this is exactly what we do not need. To deter attack, retaliation must be credible. For retaliation to be credible, commanders would have to be given the authority to launch nuclear attacks on the Soviet homeland in response to nuclear attacks on U.S. ships, and this carries an unacceptable risk of escalation. The authority and the ability to initiate nuclear attacks should rest exclusively with the president, and it should be just as easy for the president to order ICBM attacks on Backfire bomber bases as it would be to order SLCM attacks.

For these reasons, the existence of nuclear SLCMs are bad for both superpowers. But although the U.S. now enjoys a substantial lead in SLCM technology, there are reasons to believe that the advantage will shift to the Soviet Union if and when they catch up. First, and most importantly, the U.S. has a much larger number of important coastal targets than the Soviet Union--not the least of which is Washington, DC. Second, the United States has the big navy, and tactical naval weapons could serve as the great equalizer in a war at sea. It is hard to see how the possession or use of such weapons by both sides could be to the relative advantage of the United States.

In conclusion, the avenues of naval nuclear arms control that seem most promising are limitations on ballistic missile flight tests to prevent the development of depressed-trajectory SLBMs and to prevent further improvements in SLBM accuracy if possible, limiting the U.S. and the USSR to equal and much lower numbers of nuclear-powered attack submarines, and banning nuclear weapons from surface fleets. Such measures would reduce incentives for preemptive attack, increase political control over nuclear weapons, thereby reducing the probability of accidental or inadvertent escalation as well as increasing the probability that a nuclear war could be terminated, and save billions of dollars per year in operations and new weaponry, without significantly affecting the ability of the United States to use naval forces in situations such as Persian Gulf War.