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The Past as Prologue, or: Back to the Future

Until the development of nuclear fission, no weapon of war had generated more public controversy than the submarine. Calls for its abolition and/or treaty restrictions on submarine operations and construction have been the staple of the 20th century disarmament movement. If this movement can be thought of as a coherent historical trend with its origin in The Hague Conferences of 1898 and 1907, its development has been a contemporary parallel to that of the submarine: from intellectual curiosity to a routine, powerful and exploitable political force. The passion for disarmament that followed the First World War was fanned by popular outrage at unrestricted submarine warfare. Yet, it was this very same war that first demonstrated that the submarine had indeed become a practical weapon with considerable effect on the outcome of hostilities.

With an irony worthy of classical Greek tragedy, control of the submarine—the focus of major disarmament proposals—remained unobtainable throughout the interwar period. The weapon most contemporary with the disarmament movement, and optimized for operations least in accord with the current laws of war, resisted effective control. Unlike poisonous gas, which also was used in peripheral conflicts during the interwar period, the submarine remained a weapon of choice for the next major war.

Based on historical precedents concerning both war and international disarmament, the submarine will undoubtedly be a weapon of choice for future wars. With the advent of nuclear propulsion, the strategic and tactical

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effectiveness of the submarine has increased multifold. With the exception of the SALT I accord, which affected only submarines capable of launching nuclear-armed ballistic missiles, submarine operations in war and peace remain relatively unconstrained by international treaty. Antisubmarine warfare operations, long viewed as the natural balance to unrestricted submarine warfare, also have remained unrestrained. However, fueled by the recent debate on the Maritime Strategy, proposals concerning treaty restrictions on submarine operations have reemerged in literature on defense policy. The current focus is on the role of the submarine in antisubmarine warfare.

The Arms Control Setting

Despite the impending congressional debate on the current INF Treaty and continuing questions concerning Soviet compliance with existing treaties, the United States will face mounting pressure to continue to pursue formal arms control agreements with the Soviet Union. Such pressure is generated within Congress and the general public by individuals who view such agreements as necessary harbingers of peaceful relations between the superpowers. The most vocal advocates often appear to support almost any agreement that—despite overall strategic consequences—might be construed as arms control.

One of the factors driving this pressure is the perceived need for a continuing string of apparent arms control "successes" in order to demonstrate the cumulative utility of formal arms control. Many of the more influential supporters of formal arms control are still convinced that the logic of incremental arms control agreements, developed in the academic conferences of the sixties and early seventies, remains basically sound.[1] The guiding premise of the incremental approach is that both strategic stability and a gradual reduction in nuclear arsenals are achievable through a series of small steps: sequential agreements that sum to an overall enhancement in mutual security.

Unfortunately, from a strategic balance viewpoint, the series of actual steps that culminated in the unratified SALT II agreement appear to have brought about the opposite—a relative reduction in strategic stability and American security. Quite frankly, the Soviets have been unwilling to conform to a logic of arms control that requires them to stop or curb ongoing strategic programs in those areas where they possess a relative advantage over the United States.[2] In light of this, advocates of formal arms control are faced with two choices: to repudiate a considerable portion of their previously espoused logic or to find areas where a symbolic agreement,

demonstrating the relevance of arms control beyond NATO's central front, could be rapidly forged by accommodating Presidential administrations.

One of the areas of probable interest to those arms control advocates seeking an "easy," yet presumably beneficial agreement with Moscow, is antisubmarine warfare (ASW). Calls for restrictions on ASW were prominent in the pro-arms control literature of the early seventies. More importantly, they have been renewed during the public debate over the Maritime Strategy. While it is unlikely that the United States would have any desire to negotiate restrictions affecting American ASW capabilities, it is likely that particular arms control advocates—embarking on their second choice of action—will continue to pronounce on their desire for ASW restrictions. Such pronouncements, if unchallenged by sound analysis, may lead to unwarranted public enthusiasm.[3]

Anticipating renewed proposals for agreements restricting ASW, the objective of this article is three-fold. First, it will briefly trace the history of proposed curbs on submarine and antisubmarine warfare, with emphasis on proposals made after the signing of SALT I (1972). Secondly, it will identify the particular assumptions of the arms control "logic" that steer these proposals. Third, and simply as a guide to those who would view ASW as fertile ground for agreement, it will attempt to describe the minimum requirements that a practical, equitable and verifiable ASW treaty would have to entail in order to enhance strategic stability and serve American interests. The objective is not to advocate an "arms control regime" for ASW (the history of arms control has yet to demonstrate the effectiveness of any such regime), but to identify the primary strategic implications that ASW arms control would have—implications that are inherently disadvantageous to American forces and decidedly unfavorable towards American security.[4] Any attempt to develop a meaningful arms control agreement would have to overcome these disadvantages, making such an agreement—in light of a Soviet negotiating strategy that seeks to develop and retain strategic superiority—virtually impossible.[5]

Why ASW As an Area for Arms Control?

Why should ASW, a defense capability which proved instrumental in achieving Allied victory in two World Wars, which constitutes defense-oriented force employment (as opposed to exclusively offensive capabilities), and which does not involve the use of strategic nuclear weapons, suddenly become the focus of proposals for disarmament-like measures? The prime focus of the original theory of arms control was to eliminate the possibility of surprise attack using offensive nuclear forces.[6] Certainly there are other military capabilities—"heavy" intercontinental ballistic missiles (ICBMs),

for example—which would seem to be the more appropriate targets of proposals for elimination or reduction by arms control advocates. In contrast, the ASW objectives of protecting American naval and maritime vessels, ensuring our sea-link with the European members of NATO and Pacific allies, and defeating enemy offensive forces in the event of an actual war would appear to conform to the arms control objective of preventing a surprise nuclear attack.

However, in the continuing political debate on arms control—a debate that frequently links almost all defense programs to the specter of nuclear holocaust—advanced ASW capabilities have been cited frequently as an area in which arms control could "stabilize" superpower rivalry and prevent escalation to nuclear war. Two factors influence this view.

First, but less frequently admitted, is the historical tendency of American disarmament movements (intellectual predecessors to the more recent view of arms control as a step towards disarmament) to treat all naval capabilities with suspicion. In the tradition of the isolationists and anti-navalists of the early 20th century, navies are sometimes viewed as forces that contribute to imperial ambitions.[7] From this perspective, an ability to protect naval forces is not seen as defensive, but rather as a continuation of an American facility for meddling with unnecessary overseas commitments. While many contemporary arms control advocates might deny a sympathetic ear to overt calls for a reduction in American commitments to Allied defense (particularly commitments for defense by means of conventional force), there are subtle echoes of the earlier suspicion in their depiction of overall American defense capabilities in terms of "overkill," "spiraling arms race" and "missile envy." Historically, naval forces have been the target of disarmament negotiations such as the Washington Naval Conference of 1922, which many pro-arms control scholars consider to be a successful precedent and example for the SALT accords.[8] A shift in the attention of arms control advocates from strategic nuclear forces to naval forces is almost a return to tradition.

A second, more important factor is that a number of arms control advocates—clinging to the theory of "mutual assured destruction" (MAD) deterrence—have come to view ASW as the naval equivalent of antiballistic missile (ABM) defense.[9] In the MAD logic of "offense is good, defense is bad," any American ASW capability that could possibly be construed as effective in defense against Soviet nuclear-powered ballistic missile submarines (SSBNs) is considered destabilizing to the overall strategic nuclear balance. The fact that current ASW capabilities are important for any conventional defense and may only incidentally affect the strategic nuclear posture is subsumed, on the one hand, by the concern for a MAD-defined sense of nuclear stability, and disparaged, on the other, by the

suspicion that latent naval imperialism causes wars. At its core, the MAD doctrine (which, in fact, has never represented the actual American policy for nuclear weapons employment) deprecates the need for an extensive conventional component as part of the American deterrent. Since the sole concern is for nuclear weapons, American ASW capabilities are viewed as systems primarily targeted against Soviet SSBNs regardless of the fact that they are designed primarily to counter the Soviet nuclear-powered attack submarine (SSN) threat to Western sea control and are essential for the latter task.

Proposals for ASW Arms Control

The interplay of the above two factors helps to explain why proposals for ASW restrictions have remained popular topics in the literature on arms control. However, the historical precedents for these proposals are disconcerting. Since the primary platform for modern ASW is the nuclear-powered attack submarine (SSN), any restriction on antisubmarine warfare constitutes an inherent restriction on submarine warfare. In this sense, proposals for such restrictions are merely a continuation of various historical attempts to ban, limit or restrict attack submarines. The sad fact is that the numerous past attempts all ended in failure. The legacy is of broken, unratified and unenforceable treaties of which three primary examples are:

- The German decision for unrestricted submarine warfare in 1917 (which violated the maritime warfare provisions of The Hague Conventions of 1907).
- The French refusal to ratify the Washington Treaty of 1922 on Use of Submarines and Gases in Wartime (which ensured that the treaty was never placed "in force").
- The Anglo-French attempt to enforce the 1937 International Agreement for Collective Measures against Piratical Attacks in the Mediterranean by Submarines (the Nyon Agreement), which had a tenure of four months.[10]

History is not favorable towards treaties affecting submarines.

Nevertheless, proposals for ASW arms control became the discussion of academic conferences and publications following the signing of the SALT I accords. Four prominent sources for such proposals were: the "Future of the Sea-Based Deterrent" symposium held in Racine, Wisconsin, in November 1972 (organized by the Carnegie Endowment and the American Academy of Arts and Sciences); the Stockholm International Peace Research Institute (SIPRI); publications of The Brookings Institution; and the Aspen Institute for Humanistic Studies. Ironically, the fundamental conclusion of all four of these studies is that ASW arms control is *not* essential for strategic stability.

The Racine Conference (1972). The Racine symposium set a trend for future conferences: it did not allow its specific conclusions concerning the actual threat posed by ASW capabilities (particularly American capabilities) towards strategic nuclear deterrence to interfere with continued advocacy of arms control measures. The individual studies presented at the conference were unanimous in the finding that there was "*no* currently foreseeable threat to the submarine-based deterrent," that "SSBNs could survive without arms control measures," and that "attempts to negotiate arms control measures for limiting ASW . . . would be counterproductive."[11] Nonetheless, the conference report concludes with a call for the "gradual phasing out of both attack submarines and ASW capabilities."[12] Measures advocated in order to ensure the prevention of any "erosion of confidence" concerning the survivability of the American and Soviet SSBN forces include:

- Unilateral restraint by the United States in procuring improved naval forces.
- Restrictions on active trailing of opposing submarines.
- The establishment of wide open-ocean sanctuaries for SSBNs (in which ASW would be barred).
- An agreement for the safe passage of SSBNs during conventional war, with individual SSBNs continually announcing their presence via electronic signals and towed surface buoys.[13]

Although the proposals are specific, the desire to advocate possible arms control measures was not matched by a detailed analysis of their potential military consequences, probable difficulties in the enforcement of compliance, or the concurrent hazards that such measures might have toward conventional deterrence. For example, in assessing the requirement for electronic signals and surface buoys, the published papers fail to provide a systematic explanation as to why SSBNs should deliberately forsake the relative physical security of underwater patrol (towards which the conference found *no* significant threat) for an absolute dependence on the "good-will" of a wartime enemy. Resupply of NATO forces from across the Atlantic during a conventional war—which would be dependent on Allied ASW capabilities—was briefly discussed but not seriously addressed. One participant observed that NATO-Europe is "relatively much more dependent on sea-borne commerce than the U.S."—a curious way to describe the conventional aspect of Western strategy. However, despite the advocacy of controls, it was generally admitted that some of the proposals might have "asymmetrical effects" on U.S. and Soviet forces and that "decoupling of tactical operations from counter-SSBN operations is probably not practical, albeit desirable and technically feasible."[15]

SIPRI Proposals (1973). Despite this pessimistic conclusion, one of the participants in the Racine Conference was commissioned the following year by the Stockholm International Peace Research Institute (SIPRI) to prepare a monograph on ASW. After considerable research, the author reported for a second time that "a first strike against SSBNs is impossible with the currently deployed ASW systems." Yet again, more specific steps were advocated in order to "reduce the danger," including:

- restricting power levels for ocean surveillance systems;
- prohibiting surveillance arrays from mid-ocean areas;
- "prohibiting the development of surface ships or aircraft capable of tracking submarines uninterrupted for long periods of time";
- a treaty setting an upper limit on the ration of SSNs to SSBNs.[16]

Admitting that these measures would significantly affect the U.S. Navy but have little effect on the Soviets (and thus would constitute a form of unilateral disarmament rather than mutual arms control) because "only the U.S. has area-defense ASW," the author insisted that such measures were nevertheless justified since "any circumstance or action that could potentially threaten the integrity of the submarine-launched ballistic missile (SLBM) forces of the United States and the Soviet Union would be contrary to the national policies of these countries *vis-à-vis* their strategic postures towards each, since it would threaten the strategic stability they have so laboriously established, and could lead to the reactivation of the arms race, this time under water."[17]

The above assertion was backed by an effort to create a distinction between ASW and what the author referred to as "Anti-Strategic Submarine Warfare" (ASSW). However, he was unable to make a firm distinction as to which antisubmarine tactics and weapons platforms were solely ASSW and which were intended to function as conventional ASW. Assessing the potential that area-defense ASW (use of underwater sound arrays in conjunction with patrolling SSNs) might have for ASSW, the author concluded that this potential was primarily a by-product of the conventional ASW effort. In the event of a war, Soviet SSBNs, particularly those seeking to patrol south of the Norwegian North Cape, "must expect attrition . . . both as a result of incidental encounters and as a byproduct of the concept of extended deterrence."[18]

This conclusion—the lack of practical distinction—supported the author's initial observation that there was no deliberate "first strike threat" to SSBN survivability. For the United States, which had deployed "area-defense ASW" capability in selected ocean zones, the inability to utilize its ASW advantages for a disarming strike was reinforced by U.S. agreement to the Anti-Ballistic Missile (ABM) Treaty in 1972 and dismantlement of its sole permitted ABM site. Given this situation, logic would suggest that there was no overriding strategic imperative for ASW arms control. However,

in a sequence of convoluted prose, the study suggests that area-defense ASW should be banned or limited because such ASW tactics might "support a damage-limiting counter SLBM strike" on Soviet submarines after the Soviets had initiated a strategic strike on the United States.[19] In other words, the author sought an American renunciation of an ability to retaliate after a Soviet nuclear first strike by any means other than destroying Soviet cities. While this may generally conform to the "assured-destruction" policy sought by Defense Secretary Robert S. McNamara in the mid-sixties, even he did not openly suggest that American military forces should idly permit the Soviets to engage in a protracted or sequential first-strike attack on the United States utilizing their SSBN force as a reloadable strategic reserve. To students of recent American strategic history, it is surprising that the author's logic did not permanently discredit suggestions for ASW arms control.

More surprising, the study's final section—devoted to assessing future developments—drew conclusions that appear to be in complete opposition to the author's repeated concerns that an underwater arms race would cause strategic instability. In fact, it was suggested that new weapons might *enhance* stability. The author found that the impending development (an arms race, if you will) of longer range SLBMs (range in excess of 8,000 kilometers) would make the need for the above arms control measures moot since "it would be quite possible for U.S. and Soviet SSBNs to be deployed very near or actually in their respective coastal zones and therefore be protected both from attrition or damage-limitation losses."[20] While not reflective of American naval doctrine, the logic behind this argument is in general conformance with the pre-MAD views of strategic stability as expressed in the original writings on arms control theory. In addition, most authorities maintain that this has become an accurate statement of the current Soviet policy for deployment of their longer range SLBMs.[21]

The Control of Naval Armaments (1975). Academic interest in naval arms control was continued by a Brookings Institution study published in 1975. While the Brookings study deliberately avoided direct review of the proposals for ASW arms control and focused solely on potential agreements concerning "general purpose navies," it did suggest that ASW restrictions or denuclearization agreements might be potentially useful in reducing "the risk of war due to accidents or overly aggressive local commanders" or superpower "miscalculation."[22] The study also echoed previous recommendations concerning limits on nuclear power attack submarines, proposing specific limits—perhaps in the spirit of the unbalanced SALT I ratios—of 80 nuclear attack submarines for the United States and 120 nuclear

attack submarines for the Soviet Union (a ratio of 3 to 2 in favor of the Soviets).[23]

Aspen Institute Conference (1978). In August 1978, a conference on "Navies and Arms Control" was held at the Aspen Institute in Colorado. Once again proposals were made for across-the-board naval arms control, including ASW restrictions, even as, again, there was agreement that a first strike on SSBNs was technically impossible.

Although repetitive of previous proposals, the published papers of the Aspen Conference are of considerable interest since they explicitly identify several of the assumptions from which ideas for ASW arms control are derived.[24] The first, as stated (but never conclusively demonstrated) by previous proposals, is that a clear distinction between tactical and strategic ASW can be made.

Second, and particularly revealing, is the assumption that the West has little to fear from Soviet SSBNs since they are exclusively a retaliatory force without actual first-strike or extended war-fighting capability. This assumption is based on mirror-imaging (attributing one's own motives to an opponent) and an *admittedly* casual dismissal of the authoritative Soviet writings concerning SSBN employment. As expressed by the conference organizer: "Happily enough, there is much reason to discount the Soviet naval prose about the need to strike first, just as there was reason to discount similar arguments about air warfare as advanced in the 1950s and 1960s. Soviet military writings are intended to persuade the rest of the Soviet system that extra expenditures on weapons are needed. To stress the danger of surprise attack or the need for continual vigilance is simply to bolster one's case. What purports to be strategy is thus, in significant part, domestic propaganda. U.S. military writers are not above using the same techniques, although the openness of the U.S. literature produces greater sophistication and differentiation. This is not to deny that there are preemptive aspects to the situation at sea; it merely contends that Soviet writers have an incentive to exaggerate them and to overstate their own fears of such preemption."[25]

A third revealing assumption concerned the factors of verification and compliance. Dismissing the possibility of deception for strategic advantage, the published conference papers are introduced with the presumption that the Soviet Union would be content to remain at an overall level of naval (and nuclear) power at parity with or slightly inferior to that of the United States. Agreement could easily be enforced once "both the Soviet Navy and the U.S. Navy have settled into a ratio of naval force strengths that leave them mutually content with the status quo (rather than simply content with ratios of future years to which they are looking forward to [*sic*])."[26] The possibility that the Soviets—or any potential adversary—might be tempted

to cheat in order to achieve a strategic advantage in the event a war actually occurs does not appear to be a consideration.

Current Concerns

Suggestions for ASW arms control soon took a backseat to the SALT II ratification debate. In fact, the proposals could be considered to be one of the casualties of that debate since a general public and congressional consensus developed concerning the necessity to avoid inequitable, unenforceable or largely symbolic arms control agreements.

However, the question of ASW restrictions has been resurrected during the public debate of the Maritime Strategy. A number of critics have charged that penetration of Soviet "home waters" by American SSNs would be a *de facto* escalation of any conventional East-West conflict into a nuclear one since the attack submarines would inevitably present a threat to the Soviet SSBN force. In this view, even if the United States attempted to avoid attacking Soviet SSBNs (and most critics seem to assume that SSBNs are the unspoken, but primary targets), the destruction of Soviet SSNs in northern waters would constitute escalation since they would be initially assigned to protecting the SSBNs in their bastions.[27] The underlying premise is that after initial attrition of Soviet SSNs (let alone SSBNs) occurs, the Soviets would panic and assume that their strategic reserve was no longer secure. In their impression of an impending "use or lose" scenario, the Soviets would react by launching a nuclear strike, particularly if a few of their SSBNs were inadvertently or deliberately sunk.

More recently, certain critics have expanded their arguments to the position that *any* "ASW strategy creates a risk of Soviet-American confrontation, misinterpretation and escalation in peacetime, in crisis situations, and at various levels of actual conflict."[28] Even without sailing into the Barents Sea, modern American SSNs and other ASW platforms are portrayed as constituting elements "increasing the premium of preemption" and "erasing constraints on nuclear use."[29] In essence, this is a restatement of the ASW restriction arguments of the seventies and reveals a logic that advocates the creation of an artificial strategic environment which will facilitate arms control without regard for the consequences for practical naval strategy or conventional deterrence.

The "Logic" of ASW Arms Control

Determining the logic behind the various proposals for ASW arms control is not easy since many such proposals are not as directly concerned, as they may initially appear to be, with the imperatives of security.[30] Attention must

be paid to their presumptions as well as to their provisions because much of their logic is constructed on assumptions that are—to say the very least—highly contentious. That many of the proposals treat these assumptions as proven facts, not identifying them as primarily theoretical constructs, aggravates the problem.

Interest in applying arms control measures to protect the ballistic missile submarine force is not, in itself, illogical, given optimistic assumptions concerning the overall effectiveness of arms control. Described solely in terms of forces appropriate for an all-out strategic nuclear conflict, the nuclear ballistic missile submarine (SSBN) can be considered the "capital ship" of the Navy. Through the growth of Soviet intercontinental ballistic missile (ICBM) hard-target kill capabilities (neutralizing the survivability of U.S. land-based ICBMs) and layered air defense network (severely limiting strategic bomber penetration), the SSBN has taken on even greater importance than it held in the sixties and early seventies—it has become the sole survivable leg of the strategic Triad (as the Triad is currently configured).[31] With the protection afforded by its medium, the SSBN is the one strategic weapon capable of fulfilling the requirements of absorbing a Soviet first strike and retaliating—destroying either Soviet forces (the pure counterforce doctrine), Soviet cities and civilian industries (the assured destruction/countervalue doctrine), or a combination of military forces, war-related industries and political leadership (countervailing strategy). Concern for the continued credibility of the American deterrent would itself dictate considerable concern for the future survivability of the SSBN force on which it has become dependent. Assuming that arms control measures could be enforceable and effective, advanced ASW capabilities that might threaten SSBN survival would theoretically be candidates for arms control.

However, the use of arms control agreements to ensure SSBN survivability relies on particular assumptions concerning the nature of effective deterrence, the nature of Soviet naval strategy, the probability of nuclear (as opposed to conventional) war, and the survivability of arms control agreements during conflict, among other elements. Some of these assumptions have already been identified, but also it is important to note the manner in which they are linked in order to support the advocation of paper controls. The main assumptions are:

- Only nuclear force deters and/or only a nuclear deterrent is required.
- The Soviet SSN force is primarily designated for defense of Soviet SSBNs.
- The Soviet SSBN force can only be used as a secure second-strike reserve.
- Arms control agreements would be honored in wartime.
- Arms control means disarmament.

Assumption One: Only Nuclear Force Deters. The prime assumption is that the only concern of deterrence is the survivability of strategic nuclear forces. In order to accept the logic of ASW arms control, one first has to accept the idea that the American SSBN force is a considerably greater deterrent to a central war in Europe than the American ability to resupply NATO forces from across the Atlantic. While this might be an orthodox view, the logic favoring ASW arms control restrictions requires it to be carried to an extreme: the conventional mobility/resupply capability is portrayed as inconsequential in relation to the capability to launch an all-out "spasm" nuclear strike. The assumption is necessary in order to create the intellectual argument that American ASW capabilities could be traded for marginal gains in treaty-mandated SSBN survivability without severe consequences to the overall posture of NATO deterrence. This view, an underlying premise of the MAD school, has been continuously challenged by defense analysts favoring the maintenance of appropriate capabilities for deterrence at levels below all-out nuclear war. The need for conventional deterrent forces has been highlighted by the great increase—some would call it superiority—in Soviet strategic forces, a threat that diminishes the deterrent effect of the American strategic arsenal. Recently, even traditional proponents of MAD have come to the conclusion that conventional capabilities are as important to NATO deterrence as strategic nuclear forces.[32] However, the ASW arms control proposals previously examined require the deliberate sacrifice of systems designed to provide an essential requirement for a conventional deterrent: sea control of the Atlantic.

Assumption Two: The Soviet SSN Force Is Defensive. One must also assume that the large Soviet SSN fleet is intended almost exclusively for the protection of their SSBN force as a secure reserve. This assumption is essential for discounting the strategic importance of the considerable Soviet antishipping capability. Obviously this is "best-case" thinking in regard to the naval balance. While a number of authorities have argued that SSBN-protection is a primary mission for Soviet SSNs, even they cannot deny that the Soviets have developed considerable SSN capability against NATO shipping and the Allied naval forces assigned to SLOC protection. The long-range ASW techniques that could be conceived as threatening to a poorly employed Soviet SSBN force—and thus the target of treaty limitations—are the same capabilities that are essential to preventing an inundation of the Atlantic by Soviet SSNs and a conventional defeat of NATO.

Assumption Three: Soviet SSBNs Are a Secure Reserve. In order to support the second assumption, one must agree that the Soviets do indeed view their SSBN force as a secure reserve employable only in the event of American

use of nuclear weapons. Such a view, corresponding to that expressed at the Aspen Conference, requires the dismissal of considerable Soviet discussion of the struggle for the first salvo and employment of SLBMs against naval targets.[33] Soviet discussion of their own doctrine is replaced by a mirror-image of American doctrine. American ASW capability used against Soviet SSBNs and SSNs is viewed as destabilizing because it is assumed that the Soviets would only employ SLBMs in the retaliatory (American) mode.

Assumption Four: Arms Control Survives War. One would have to accept as fact the idea that enemies would conform to peacetime arms control agreements during actual combat instead of striving to achieve advantages which might ensure victory. This assumption is repudiated by the myriad of peacetime treaties broken during war. What is frequently cited as a (sole) supporting case for this premise—German non-use of poisonous gas in World War II—has never been thoroughly investigated for its validity as an act of "mutual arms control." Similarly, problems with peacetime compliance would also have to be rationalized as "not being strategically significant."

Assumption Five: Arms Control Means Disarmament. In addition to the above explicit assumptions, there is another latent interest/presumption that propels many of the ASW arms control proposals—and it is one that transcends the concern for a credible deterrent. The problem of strategic deterrent credibility could be solved relatively quickly through unilateral measures. Specific concerns for future SSBN survival could be reduced if the survivability of the other two legs of the Triad were to be increased in the near-term. A revival of the Triad as a survivable deterrent *in toto* would lessen the requirement to enhance SSBN survivability at a cost to conventional capabilities. Such is the intent of the B-1 bomber and Midgetman missile programs. However, a distorted version of the logic of arms control holds that arms control is a failure if any new strategic systems are built (whether or not they ensure strategic stability).[34] Thus, the call for ASW restrictions to preserve SSBN retaliatory capabilities has become, for some proponents, a rejection of the necessity for a balanced deterrent and a rationale for corresponding reductions in the American defense budget.

Disadvantages of ASW Arms Control

But what if any of the assumptions are incorrect? What if the Soviets, with a quantity of strategic weaponry that surpasses the West, no longer view the American nuclear umbrella as a deterrent to war in Europe? What if significant numbers of Soviet SSNs were to be operated south of the Norwegian Sea—which they are clearly capable of doing—as interdiction

forces? What if some of those SLBMs were targeted at American naval forces and not at cities? What if the Soviet Union, as the historical record indicates, decided not to honor agreements—particularly when the requirements for victory run contrary to their observance? In other words, what would be the likely result if ASW restrictions, such as those proposed at the Racine Conference, were enacted under conditions other than the proponents' assumptions? The simple answer is: strategic instability that could precipitate a politico-military catastrophe and probable military defeat for the West.

A prudent examination of the above assumptions identifies an inherent paradox: ensuring the survival of SSBN forces through the medium of arms control would make the overall American deterrent—both conventional and strategic—less credible. If a single assumption is incorrect, the logic unravels to reveal a process that could make war more likely and ensure an American defeat.

First, the unilateral restrictions on American mid-ocean ASW capabilities practically guarantees an Atlantic sanctuary to Soviet SSNs south of the Norwegian Sea. If the threat of fighting a strategic nuclear war to defend Europe is no longer as strong a deterrent as it was in the era of American strategic superiority, the question still remains, "what deters?" In a situation characterized by nuclear stalemate, the answer must lie in the reliability of NATO's conventional capability. A renunciation of advanced ASW capabilities would undermine the American "guarantee" to Western Europe's conventional defense: the ability to resupply NATO with forces from across the Atlantic.

Second, the large Soviet SSN fleet that presumably guards the Soviet SSBN forces in Russian "home waters" represents more than a defensive force—it is an offensive force. It represents a fleet in being that can challenge Western control in the most vulnerable area for a conventional defense: the ability to resupply. Renouncing "advanced" ASW capabilities and confining our tactics to the era of the convoy and depth charge allows the Soviet SSNs the first shot in any Atlantic battle. Western defense is credible only if they miss. It is also important to recognize that the Soviet SSBN and SSN fleets are larger than those of the United States. This would be of considerable advantage for offensive actions.

Third, the unchallenged ability of the Soviets to utilize their SSBN force as a strategic reserve is only "stabilizing" if the Soviets indeed intend to use them in that fashion. Recent investigation and internal Soviet naval doctrine tend to suggest that they view SSBNs as a valid war-fighting arm to be targeted at American naval forces. If this is indeed the case, it is only appropriate that American forces take measures to ensure that the Soviets cannot do this effectively. This means the United States must retain the

capability to inflict losses on the Soviet SSBN fleet if such becomes necessary in a wartime situation.

Fourth, tying the credibility of deterrence to a treaty guarantee makes sense only if the result of a possible treaty breach is less damaging than having no treaty at all. A treaty restriction—such as limits to ASW capability—may appear to stabilize a peacetime situation, but might prove radically destabilizing if war were to occur. In this setting, the existence of such a treaty might practically ensure its breach by the party gaining a wartime advantage. The possibility of strategic advantage creates a paradox: activities limited by treaty would become of greater consequence and therefore more tempting than they would be if the treaty restrictions did not exist.

Fifth, cutting the defense budget was never a priority with the original theorists of arms control. To use arms control for such a purpose invalidates the central tenents and ensures that the prime objective, strategic stability, is weakened.

The disadvantages to the American strategic position are exacerbated by four physical and political factors: the inability to verify ASW restrictions, a limitation that is intrinsic to the ocean environment; the geographic asymmetries between the location and physical characteristics of the United States and the Soviet Union; the asymmetries in doctrines concerning the employment and purposes of the submarine forces of the two nations; and the closed nature of Soviet society, which permits no exchange of accurate information concerning the characteristics of its military and naval programs. In addition, the question of appropriate responses to suspected treaty violations is one that must be discussed prior to any serious consideration of any ASW ban.

Minimum Requirements for Stability

A meaningful ASW arms control treaty would, at minimum, have to somehow overcome these asymmetrical and restrictive factors. As a first step, this would require reliable access to information on Soviet hardware and doctrine in order to ensure verification without the possibility of deception. Despite the widespread assumption that verification by national technical means (primarily, reconnaissance satellites) is effective, there is considerable evidence that the Soviets have been successful in deceiving American verification systems, particularly as concerns their SSBN program. For example, it has been reported that the Soviets used at least six decoy submarines to provide for the higher number of modern SSBNs allowed them under the SALT I accords.[35]

The remote basing of Soviet naval facilities, strict control over the most basic information on force composition, and the closed nature of Soviet

society denies all means of confirming information gathered by national technical means (NTM). In comparison, information on U.S. SSBN and ASW forces is readily available from congressional testimony, is debated in the press, and can be observed from waterfront property in San Diego or New London by the general public. These asymmetries could be eliminated only by effective on-site inspection of Soviet naval units and facilities. Effective verification by other than NTM should be the first priority in drafting any ASW restrictions.

In addition, the purpose of any ASW treaty should be to ensure dynamic strategic stability, both nuclear and conventional, rather than provide blanket restrictions that may provide strategic advantages in conditions other than spasm nuclear war. At minimum, the following features should be included:

- Equal numbers of SSBNs and SSNs for both sides.
- Reduction of the asymmetry in numbers and throw-weight of land-based ICBMs and IRBMs (intermediate-range ballistic missiles) that threaten overall Triad survivability.
- Ban an inspection to prevent the mounting of "plunging warheads" on land-based ICBMs (warheads designed to attack submerged submarines).

Equal Numbers. The larger number of SSBNs permitted the Soviets allows them to contemplate using part of their SSBN force for war-fighting and still be assured that a strategic reserve is maintained. This alone provides considerable rationale for retaining "area-defense ASW." Any treaty that attempts to restrict ASW from threatening SSBNs and stabilize mutual deterrence must first deal with the problem created by an unequal number of SSBNs. Under the terms of SALT I, the Soviets are permitted a 3 to 2 advantage in modern "boomers." The first order of business for any stabilizing treaty must be the elimination of this advantage.

A Soviet advantage in SSNs is even more alarming. An arms control agreement that codifies an unequal number of SSNs, such as that proposed in the Brookings study, compounds any conceivable survivability problem. In addition, a treaty that restricts ASW but does not reduce the threat to sea control decreases the effectiveness of future NATO reliance on conventional weapons. If Soviet SSBNs are provided treaty sanctuary, on what mission is their SSN force—whose presumed current mission is SSBN defense—going to concentrate? If the Soviets were to be permitted by international law to have more SSNs, sanctuary for (more) SSBNs, and a guarantee of limits to American ASW capabilities, where will we (not) find much of their SSN fleet? The answers are: interdiction, and between the United States and our allies. Not mentioned is the probability that these SSNs will be carrying land-attack cruise missiles.

Reduction of the Threat to Land-Based Triad Components. The survivability of the American SSBN force as a second-strike retaliatory force is directly related to the survivability of the entire strategic Triad. The whole point in developing the Triad was to prevent sole reliance on one method of nuclear deterrence. With more than one survivable mode of retaliation, a technological breakthrough in offensive measures against any one mode would not completely undermine deterrence.

Enhancing the survivability of our ICBM and bomber force would eliminate the possibility that a threat to the survivability of SSBNs could completely undermine America's deterrent posture. A treaty that restricts ASW but does not enhance the survivability of the other legs of the Triad undermines strategic stability and increases the incentive for a Soviet first strike. As a prerequisite, any ASW arms control treaty must be preceded by a reduction in the numbers and throw-weight of Soviet ICBMs to levels comparable to those of the United States. This would necessitate the elimination of the Soviet "heavy missiles" (such as the SS-9s, SS-18s and SS-19s), which constitute the prime threat to the American land-based deterrent and have no American counterpart. The massive Soviet air defense/ABM system likewise has no American counterpart and severely reduces the possibility that a second-strike retaliation can be carried out by American bombers.

Elimination of Possible ICBM Threats to SSBNs and Other Naval Units. The Soviet advantage in ICBM numbers and throw-weight permits the ability to target strategic nuclear forces against SSBNs and other naval forces. We have no exact knowledge of whether they have developed suitable "plunging" warheads for this mission. However, the ratio of Soviet warheads to American targets suggests that a substantial portion of their strategic forces could be targeted for war-fighting at sea without a reduction in their overall capability for strategic nuclear conflict. If ASW restrictions were to go into effect while the Soviet Union retained this advantage, the potential threat to American SSBNs would *not* be reduced. A breakthrough in ASW systems not covered by the treaty could be immediately exploited by the Soviets via their surplus of strategic weapons systems. Likewise, if the Soviet SSBNs are allocated for attacks on American naval units (as Soviet doctrine indicates) rather than as a second-strike force, ASW restrictions would merely enhance the possibility of conventional war. ASW arms control must be preceded by a reduction of the Soviets' surplus strategic capability and elimination of the possibility that these systems can be converted to anti-SSBN missions. This would require on-site inspections to ensure Soviet ICBMs were not being converted to plunging warheads.

Since none of the above minimum requirements would preserve a Soviet advantage over the United States in either force composition or knowledge

of the opponent's capabilities, it seems evident that the Soviets would resist such measures.[36] However, these minimum requirements are so important, both individually and collectively, that ASW arms control negotiations should never be permitted to proceed without their initial adoption. They are neither bargaining chips nor trade-offs, but enhancements to mutual strategic stability. This being the case, the probability of achieving a practical, equitable, and verifiable ASW agreement is so remote as to warrant the most pessimistic of conclusions.

In terms of logic and probable effects, it is time to put the idea of arms control limits to ASW on the shelf for at least the rest of the decade. It is not that proposals for such controls are not well-meaning; it is that, given the deterrence requirements for NATO, the composition of Soviet SSBN and SSN forces, and our (restricted) glimpses into Soviet naval doctrine, arms control agreements limiting ASW would be inherently disadvantageous to Western security. In addition, as recent scholarly research has concluded, there is no indication that the various ASW arms control proposals are needed to enhance SSBN survivability.[37] Likewise, there is little evidence they would substantively enhance overall strategic stability since they are likely to hinder a credible conventional defense. An agreement concerning limits on ASW would be mere window dressing to superpower relations, while carrying enough side-effects to promote greater instability in the future. Public discussion that holds out the possibility that such agreement would promote strategic stability simply builds a dangerous illusion.

Notes

1. For example, see Joseph S. Nye, "Farewell to Arms Control?" *Foreign Affairs*, Fall 1986, pp. 7-9. This view is routinely expressed in such journals as *Arms Control Today and Bulletin of the Atomic Scientists*.

2. The most concise account of this Soviet attitude towards arms control is by Igor S. Glagolev (a former Chief of the Disarmament Section of the Institute of World Economy and International Relations, Academy of Sciences of the U.S.S.R.), "The Soviet Decision-Making Process in Arms Control Negotiations," *Orbis*, Winter 1978, pp. 767-776. See also: Richard Perle, "Echoes of the 1930s," *Strategic Review*, Winter 1979, pp. 11-15; Richard F. Staar, ed., *Arms Control: Myth Versus Reality* (Stanford, Calif.: Hoover Institution Press, 1984), pp. 11-14, 34-35; William R. Harris, "Arms Control Treaties: How Do They Restrain Soviet Strategic Defense Programs?" *Orbis*, Winter 1986, pp. 701-708.

3. Eugene V. Rostow, "Why the Soviets Want an Arms Control Agreement, and Why They Want It Now," *Commentary*, February 1987, pp. 20-21.

4. Edward N. Luttwak, "Why Arms Control Has Failed," *Commentary*, January 1978, pp. 23-28.

5. William R. Van Cleave, "The Chimera of Equitable Arms Control," *Global Affairs*, Winter 1986, pp. 17-26.

6. Thomas C. Schelling and Morton Halperin, *Strategy and Arms Control* (New York: Twentieth Century Fund, 1961), pp. 10-24; Donald G. Brennan, ed., *Arms Control, Disarmament, and National Security* (New York: George Braziller, 1961), pp. 19-42; Hedley Bull, *The Control of the Arms Race* (New York: Praeger, 1961), pp. 158-174; Arthur T. Hadley, *The Nation's Safety and Arms Control* (New York: Viking, 1961), pp. 5-6, 106-127.

7. Walter E. Pitman, "Echoes of the Future," U.S. Naval Institute *Proceedings*, supplement, March 1985, pp. 33-37.

8. Hedley Bull, "Strategic Arms Limitation: The Precedent of the Washington and London Naval Treaties," in Morton Kaplan, ed., *SALT: Problems and Prospects* (Morristown, N.J.: General Learning Press, 1973), pp. 26-52; Coit D. Blacker and Gloria Duffy, eds., *International Arms Control: Issues and Agreements* (Stanford, Calif.: Stanford Univ. Press, 1984), pp. 89-93; Lieutenant Paul G. Johnson, USNR, "Arms Control: Upping the Ante," U.S. Naval Institute *Proceedings*, August 1983, pp. 28-34.

9. Kosta Tsipis et al., eds., *The Future of the Sea-Based Deterrent* (Cambridge, Mass.: The MIT Press, 1973), pp. 124-126.

10. Arms control advocates have the persistent habit of citing historical references that appear to favor the possibility of effective arms control and ignoring demonstrations of ineffectiveness. The Nyon Agreement of 1937 is a typical example of largely ignored history. Its sole citation in a policy-oriented study of arms control consists of a dismissive paragraph and footnote appearing in Barry Blechman's *The Control of Naval Armaments: Prospects and Possibilities* (Washington, D.C.: Brookings Institution, 1975), p. 34. The cursory nature of his examination is evident in the author's misidentification of the treaty conference as occurring in Nyon, France, when in fact Nyon is located in Switzerland. However, some of the optimism generated at the time of the agreement—very similar to the enthusiasm of current arms control advocates for modern agreements—can be found in Arnold J. Toynbee, *Survey of International Affairs: 1937* (Oxford: Oxford Univ. Press, 1938), pp. 322-323, 339-352.

11. Tsipis et al., eds., pp. xi, ix, xii, 150.

12. *Ibid.*, pp. 85, 165.

13. *Ibid.*, pp. 114-119, 161-166.

14. *Ibid.*, p. 84.

15. *Ibid.*, p. xi.

16. Kosta Tsipis, *Tactical and Strategic Antisubmarine Warfare: A SIPRI Monograph* (Cambridge, Mass.: The MIT Press, 1974), p. 47.

17. *Ibid.*, p. 43.

18. *Ibid.*, p. 45.

19. *Ibid.*, pp. 41-42, 45-47.

20. *Ibid.*, p. 47.

21. Bryan Ranft and Geoffrey Till, *The Sea in Soviet Strategy* (Annapolis, Md.: Naval Institute Press, 1983), pp. 172-173; David B. Rivkin, "No Bastions for the Bear," U.S. Naval Institute *Proceedings*, April 1984, pp. 37-43; James J. Tritten, *The Strategic Employment of the Soviet Navy in a Nuclear War* (Ph.D. dissertation, Univ. of Southern California, December 1984), pp. 218-219.

22. Blechman, pp. 6-8, 27.

23. Factoring in the SALT I limits on modern SSBNs (44 for the United States and 62 for the Soviets), this proposal would allow a ratio of less than 1.5 American SSNs per Soviet SSBN, but a ratio of almost 3 Soviet SSNs per American SSBN. If SSNs did indeed constitute a destabilizing threat to the opposing SSBN forces, such ratios would enhance, not stem, the strategic imbalance.

24. George H. Quester, ed., *Navies and Arms Control* (New York: Praeger, 1980), esp. pp. 8-11, 38-41.

25. *Ibid.*, p. 9.

26. *Ibid.*, p. 41.

27. Barry R. Posen, "Inadvertant Nuclear War?: Escalation and NATO's Northern Flank," *International Security*, Fall 1982, pp. 28-54.

28. Bruce G. Blair, "Arms Control Implications of Anti-Submarine Warfare (ASW) Programs," in U.S. House of Representatives, *Evaluation of Fiscal Year 1979 Arms Control Impact Statements* (Washington: U.S. Govt. Print. Off., 1978), p. 116. Quoted in Desmond Ball, "Nuclear War At Sea," *International Security*, Winter 1985-86, p. 16.

29. Ball, p. 17.

30. Many of the proposals reflect greater interest in controlling the arms race or reducing the defense budget than ensuring the ability of the United States to achieve its national security objectives. Rarely, however, do these sources explicitly identify the trade-offs necessitated by these priorities. Instead, national security objectives that conflict with these priorities are portrayed as unnecessary.

31. Scowcroft Commission, *Report of the President's Commission on Strategic Forces* (April 1983), p. 20; Committee on the Present Danger, "Can America Catch Up?: The U.S.-Soviet Military Balance," 30 November 1984, pp. 14-21.

32. McGeorge Bundy et al., "Nuclear Weapons and the Atlantic Alliance," *Foreign Affairs*, Summer 1982, pp. 759-760.

33. Charles C. Petersen, *Soviet Tactics For Warfare at Sea*, Center For Naval Analyses Professional Paper 367/November 1982, pp. 19-25; Raymond A. Robinson, "Incoming Ballistic Missiles at Sea," U.S. Naval Institute *Proceedings*, June 1987, pp. 67-68.

34. For example, statements of Hans Bethe and Jeremy Stone in U.S. Senate, Committee on Foreign Relations, 97 Cong., 2nd sess., *Nuclear Arms Reduction Proposals* (Washington: U.S. Govt. Print. Off., 1982), pp. 332-333, 339-340. See also: Randell Forsberg, "A Bilateral Nuclear Weapons Freeze," *Scientific American*, November 1982, pp. 52-61.

35. Leon Sloss, "The Impact of Deception on U.S. Nuclear Strategy," in Brian Dailey and Patrick Parker, eds., *Soviet Strategic Deception* (Lexington, Mass.: Lexington Books, 1987), p. 442.

36. Glagolev, pp. 772-776.

37. The most recent study is Donald C. Daniel, *Anti-Submarine Warfare and Superpower Strategic Stability* (Urbana: Univ. of Illinois Press, 1986). See pp. 201-213.

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Men seem to need to put themselves at hazard now and then. In peacetime the means to do so must be sought, and not all of them are socially acceptable. My generation had a suitable occasion thrust upon it.

Gordon W. Stead. *A Leaf upon the Sea: A Small Ship in the Mediterranean, 1941-1943*. Vancouver: Univ. of British Columbia Press, 1988. p. 177.