

Due to the fact that the
commander of the ship
is not a member of the
commander's staff

NWC
ESSAY
90-71
Archival

NAVAL ARMS CONTROL:
THE SEA LAUNCHED CRUISE MISSILE DEBATE

CDR C.J. Dale
February 1990

Report Documentation Page				Form Approved OMB No. 0704-0188	
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE FEB 1990		2. REPORT TYPE		3. DATES COVERED -	
4. TITLE AND SUBTITLE Naval Arms Control: The Sea Launched Cruise Missile Debate				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) National War College, 300 5th Avenue, Fort Lesley J McNair, Washington, DC, 20319-6000				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT see report					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES 12	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			

**NAVAL ARMS CONTROL:
THE SEA-LAUNCHED CRUISE MISSILE DEBATE**

ISSUE DEFINITION

Naval arms control has been a contentious issue between the U.S. and the Soviet Union since the current round of arms control negotiations began in 1982. Every Soviet attempt to capture naval forces in an agreement has elicited a firm U.S. response - "Nyet". In the ongoing Strategic Arms Reduction Talks (START), the issue is once again on center stage. U.S.-Soviet disagreement over how to address long range, nuclear, sea-launched cruise missiles (SLCM's) threatens to delay or derail a START agreement. The Soviets want to negotiate limits to both nuclear and conventional SLCM's with ranges in excess of 600 kilometers; the U.S. wants to move all SLCM issues outside the START negotiations, will only agree to non-binding declaratory policies on nuclear SLCM inventories, and will not discuss limiting conventional missiles.

The SLCM controversy in START has fueled an extensive national security policy debate. The broad question - Is it in the U.S. national security interest to engage in naval arms control negotiations? The specific question and the subject of this paper - Is it in the U.S. national security interest to ban or limit nuclear SLCM's?

BACKGROUND AND ANALYSIS

U.S. and Soviet SLCM Programs

Cruise missiles are small, subsonic, air-breathing missiles which can be armed with either conventional or nuclear warheads. The sea-launched version is designed to be

deployed on surface ships or submarines. Cruise missiles have been in the U.S. and Soviet fleets since the 1950's but today's state-of-the-art weapons are recent introductions. The U.S. deployed Tomahawk beginning in 1984, and the Soviets responded with the SS-N-21 in 1986.

The U.S. Navy has deployed three Tomahawk variants: nuclear land attack, conventional land attack, and conventional anti-ship. The land attack missiles have a range of 2500 kilometers and an accuracy (circular error of probability) of 250 feet. The Navy has plans to deploy 4000 Tomahawks - 758 will be nuclear armed. The Tomahawk land attack missile is the specific target of Soviet naval arms control policy.

The Soviet Navy's SS-N-21 has a greater range, 3000 kms, than Tomahawk, but it is estimated to be far less accurate. For this reason the Soviets have developed only a nuclear version. Intelligence estimates indicate that the Soviets will deploy approximately 1500 nuclear SLCM's.

Both navies have active development programs for follow-on systems. The next generation SLCM's are likely to employ "stealth" technology; to carry higher yield warheads; to be more accurate. They will almost certainly be supersonic. In cruise missile technology, the arms race is just beginning.

Naval Arms Control: The Soviet View

Arms control is a fundamental pillar of perestroika. Coupled with the policy of reasonable sufficiency, it forms the strategy by which Mikhail Gorbachev plans to transfer resources from the military to the civil sector without undermining the Soviet Union's national security. Since 1985, Gorbachev has championed a broad arms control policy which has

included extensive proposals to limit and control naval forces and their operations. Why the Soviet interest in naval arms control? First, the Soviets have concluded they face an unfavorable balance of forces at sea. Second, they recognize that they can not compete in an intensive technological naval arms race. And third, the Soviets recognize that the demands of perestroika will force significantly smaller defense budgets.

Soviet Naval Arms Control Objectives

Soviet naval arms control policy is framed to achieve four broad objectives:

- o Counter the U.S. Navy's forward deployed strategy by extending the Soviet Union's maritime frontiers and increasing the stand-off distances for naval forces.
- o Denuclearize war at sea to reduce the nuclear threat to the Soviet homeland.
- o Reduce or eliminate naval capabilities in which the West has a technological advantage.
- o Force the U.S. to take asymmetric naval force cuts as a quid pro quo for Soviet asymmetric land force cuts in Europe.

Soviet Naval Arms Control Proposals

Since sacking Fleet Admiral Gorshkov, who had commanded the Soviet navy for 30 years, Gorbachev has sparked a public debate on naval arms control. He has offered, in numerous forums, a smorgasbord of initiatives, including:

- o Demilitarizing the Baltic, the Mediterranean, and the Indian Ocean.
- o Creating nuclear weapons free zones off the coasts of the U.S. and Soviet Union.
- o Banning naval activity in shipping lanes and maritime choke points.
- o Retiring Soviet submarines in exchange for U.S. aircraft carriers.

- o Creating safe bastions, free of antisubmarine forces, for ballistic missile submarines.
- o Limiting the size and duration of naval exercises.

Gorbachev's naval arms control initiatives fall into three functional categories: (1) limits on force structure and force capabilities; (2) constraints on operations and operational flexibility; and (3) proposals to make naval operations more transparent - confidence building measures.

START: The Soviet SLCM Position

Soviet assessment of the U.S. Navy's power projection capabilities identifies the Tomahawk nuclear cruise missile as a major strategic threat. The Soviets believe Tomahawk could be used to decapitate Soviet leadership and military C3I structures in a preemptive strike. And they are concerned that nuclear SLCM's destabilize escalation control in crises by allowing a limited nuclear strike option which is independent of central strategic nuclear systems. Accordingly, a central focus of Soviet arms control policy has been the control of nuclear SLCM's.

START has provided the Soviets the forum to pursue their SLCM objectives. Their negotiating position has been consistent since 1987:

- o the SLCM issue must be included in the Start agenda or, if removed, in separate naval arms control negotiations.
 - o SLCM inventories will not count against the 6,000 warhead START limits.
 - o SLCM limits must be established by binding agreement.
- The Soviets argue that, left uncontrolled, SLCM's will undermine any START agreement and that a cruise missile arms race will develop. For all missiles having a range in excess of 600 kilometers, they propose force level limitations of 400 nuclear armed and 600 conventional.

The Soviet's position on SLCM's in START is consistent with their naval arms control objectives. The proposed limitations on inventories and the independent, but related, initiative to create nuclear free zones would effectively eliminate the SLCM nuclear threat against Soviet targets. And it would force the U.S. to take asymmetrical cuts in a naval warfare area in which it enjoys a significant technological advantage.

Naval Arms Control: The U.S. View

The U.S. position on naval arms control is driven by a single fundamental principle - the U.S. is a maritime power and, therefore, requires a strong, unbridled Navy to protect its national interests. Soviet proposals to restrict naval force capability and to constrain operational flexability are viewed as asymmetrically disadvantageous to the U.S. and its alliances, which, as maritime coalitions, are dependent on superiority at sea for their collective security.

SLCM's and U.S. National Security

The current U.S. policy on SLCM's has been carried over, basically unchanged, from the Reagan administration. The policy argues that nuclear SLCM's make a unique and positive contribution to the national security. SLCM's, the policy contends:

- o are ideal deterrent weapons which provide the U.S. another retaliatory capability without posing a significant counterforce threat for the Soviets.
- o strengthen NATO's strategy of extended deterrence by replacing the Pershing II and ground-launched cruise missiles banned by the Intermediate Nuclear Forces treaty.
- o are required by the U.S. Navy in the execution of the maritime strategy.

START: The U.S. SLCM Position

The U.S. position on SLCM's in START is laced with arms control double-talk and appears to be craftily constructed to block negotiations. In principle, the U.S. agrees to seek mutually acceptable solutions to limiting SLCM's, but clearly states that it opposes capturing conventional missiles or discussing, in any form, naval arms limitations. In the U.S. view the critical node in SLCM arms control logic is the verification regime. Without effective verification procedures, which the U.S. argues do not exist, binding SLCM limits can not be negotiated. The U.S. proposes instead to negotiate agreements on non-binding declaratory policies to exchange data on SLCM inventories and procurement rates.

The Sea-Launched Cruise Missile Debate

The Argument in Favor of SLCM Arms Control

Three independent but related arguments have been made in support of SLCM arms control.

I. SLCM technology is not frozen - the introduction of more capable second generation weapons will undermine U.S. national security. Most strategic analysts agree that today's SLCM's have only a marginal impact on the stability of the nuclear balance between the U.S. and the Soviet Union. Their inventories are small relative to the number of strategic warheads, and their capabilities preclude their use as first-strike, counterforce weapons. But future supersonic, stealth SLCM's will have first-strike counterforce capability, and will have greater leverage on the nuclear balance as START limits drawdown central strategic weapons. The deployment of more capable SLCM's is strategically disadvantageous to the

U.S. because of the greater vulnerability of the U.S. mainland to attack from the sea vis- a-vis the relative security of the land-locked Soviet Union.

II. The Soviet Navy derives more tactical advantage from SLCM's than does the U.S. Navy. The Soviets have depended on short-range, nuclear, anti-ship cruise missiles since the 1950's to counter U.S. conventional naval superiority, specifically, the power projection capabilities of the aircraft carrier. Nuclear war-at-sea favors the Soviet Navy. Tactical nuclear SLCM's counterbalance and threaten U.S. conventional superiority.

III. On balance, nuclear SLCM's have a negative impact on the U.S. Navy's ability to successfully execute its maritime strategy. SLCM's provide only a marginal contribution to the Navy's role in nuclear deterrence and have a negative impact in the Navy's crisis response and warfighting missions. Critics argue:

- o deploying nuclear SLCM's on dual-purpose ships compromises their deterrent effect. Strategic deterrence requires dedicated mission platforms, ballistic submarines, for example. Priority conventional missions for SLCM ships and submarines conflict with this requirement.

- o SLCM's are escalatory. If conflict breaks-out, it is in the U.S. interest to keep the fighting conventional. SLCM's are dangerously ambiguous. Are they strategic or tactical weapons? Is the inbound SLCM nuclear or conventional?

The Argument Against SLCM Arms Control

Proponents of continued SLCM development and deployment obviously accept the premise that cruise missiles make a positive contribution to U.S. national security. That they refute the arguments of the opposing view just discussed is also a given. Their counter argument against SLCM controls,

however, goes much further. It has two additional themes: (1) Soviet proposals are asymmetrical disadvantageous to the U.S.; and (2) a SLCM agreement is intrinsically unverifiable.

First, the asymmetries. The Soviet proposal is carefully constructed to maximize the impact on U.S. Navy capabilities while preserving their own. For example, only cruise missiles with ranges in excess of 600 km are included in the Soviet proposal. As a result over 2700 short-range nuclear anti-ship missiles in the Soviet inventory are excluded. The U.S. has no comparable capability. The range restriction also has strategic consequences. It effectively places the majority of the Soviet Union out of reach of short range systems and, therefore, removes cruise missile systems from the strategic nuclear equation. The Soviets also propose to limit SLCM deployments to specific ship classes in consonance with the long-standing Soviet philosophy to design single-mission ships but in direct conflict with the U.S. plans to deploy SLCM's on multi-purpose vessels.

Second, the verification problems. Cruise missiles are small, difficult to detect, easy to produce, store, and hide. They can be launched from a variety of platforms - surface vessels, submarines and aircraft. The nuclear version is externally indistinguishable from the conventional version. The warheads can be removed and replaced relatively easily - nuclear and conventional weapons are, therefore, convertible. These characteristics of cruise missile systems complicate all verification regimes. The extreme view is that acceptable assurance levels of compliance to any treaty limitations is impossible to achieve. The more accurate view is that acceptable verification procedures can be negotiated but they will be extremely intrusive by traditional standards.

The Navy opposes intrusive inspections because they undermine its long-standing policy to neither confirm nor deny

the presence of nuclear weapons aboard its ships. Without this policy, the Navy argues, naval nuclear deployments become too transparent. Operational security is jeopardized - Soviet order-of-battle planning and targeting is simplified. The Navy becomes more susceptible to constraints imposed by the anti-nuclear movement. Overseas base rights and port calls may become more restrictive. In short, the Navy views intrusive inspections as a challenge to the basic strengths of naval power - operational flexibility, mobility, and freedom of action at sea.

CONCLUSION

Reduced threat, whether real or perceived, peace dividend expectations, domestic political and fiscal pressures, unprecedented agreements in conventional ground force reductions, and strategic nuclear agreements will eventually force naval issues to the arms control table. U.S. national security policy makers will not be able to sustain their current "just say no" policy on naval arms control. Nor should they try. To answer my lead questions - it is in the U.S. national security interest to engage in naval arms control, specifically, to limit or ban naval tactical nuclear weapons including nuclear SLCM's.

It is my view that critics of the current policy have a persuasive and sound argument:

- o the U.S. is strategically more vulnerable to attack from nuclear SLCM's than is the Soviet Union.
- o nuclear war-at-sea favors the Soviet Union by counterbalancing U.S. conventional naval superiority.
- o SLCM's have a negative impact on the Navy's ability to execute its maritime strategy.

Eliminating nuclear weapons at sea on balance strengthens the U.S. Navy vis-a-vis the Soviet threat and it improves the Navy's ability to defend U.S. interests abroad.

This is not to suggest that the broad sweeping initiatives proposed by Gorbachev are equally acceptable. It is certainly not in the U.S. interest to establish submarine bastions or to remove all naval forces from the Mediterranean. Nor is it acceptable to allow conventional cruise missiles to be captured in a nuclear SLCM agreement. The U.S. Navy needs conventional cruise missiles in its power projection mission.

The challenge remains - How do you verify a SLCM treaty? It is certainly a tough technical problem that must be solved. But tough problems shouldn't block good policy.

BIBLIOGRAPHY

John Erickson, "Arms Control in Europe," Current History Vol. 88, No. 541, Nov. 1989.

David S. Yost, "Controlling SLCM's: The Most Difficult Question," Proceedings, Sept. 1989.

James A. Winnefield, "Avoiding the Conventional Arms Control Bottle," Proceedings, April 1989.

Ivo H. Daadler and Tim Zimmerman, "Naval Nuclear Weapons: A Strategy at Sea," Arms Control Today, Nov. 1988.

C.A.H. Trost, "The Soviet Arms Control Offensive," Vital Speeches, May 1, 1988.

William Manthorpe, "Why is Gorbachev Pushing Naval Arms Control?" Proceedings, January 1989.

"Slickums," SCIENTIFIC American, June 1988.

Kosta Tsipis, "Cruise Missiles Should Not Stop START," Bulletin of the Atomic Scientists, Nov. 1988.

James P. Rubin, "Limiting SLCM's - A Better Way to START," Arms Control Today, April 1989.