

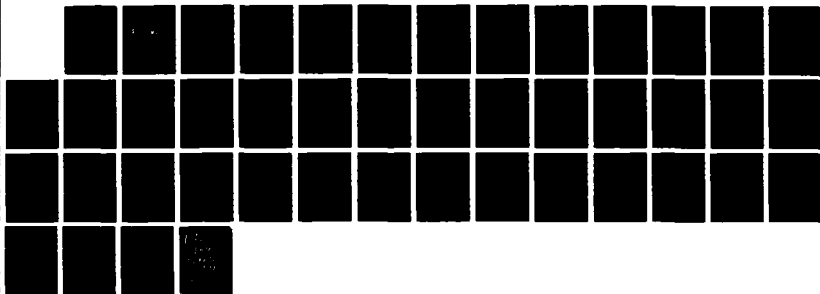
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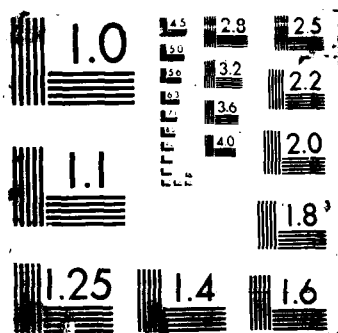
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SCENARIOS OF NUCLEAR ESCALATION
DOMINANCE AND VULNERABILITY

by

JAMES JOHN TRITTEN

JUNE 1988

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Director, Net Assessment
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Washington, DC 20301

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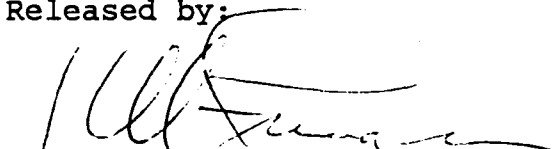
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SCENARIOS OF NUCLEAR ESCALATION DOMINANCE AND VULNERABILITY

James J. Tritten

Scenarios can be used to help analysts and decisionmakers think creatively about issues with which they generally feel comfortable. They can be used to stimulate one to think more creatively about political military affairs and the Pacific region by fleshing out some nuclear escalation dominance and vulnerability scenarios, setting the agenda for subsequent discussions.

Recent examples of regional security tensions found in the literature indicate a clear bias that there is something terribly wrong with American declaratory strategies designed to support deterrence and, should deterrence fail, to form the conceptual basis for actual military operations. Much of this literature specifically questions the wisdom of the Navy's Maritime Strategy and the possibility that the U.S. Navy will attack Soviet ballistic missile submarines during the conventional phase of a future war. Why is attacking ballistic missile submarines cast as an American threat when Soviet spokesman have been making such statements since at least 1962?¹



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Attack against strategic missile-carrying submarines (often termed "strategic antisubmarine warfare") is a most controversial topic for those of us interested in navies, deterrence, war fighting, war termination, and arms control. The concept involves the cutting edge of submarine and antisubmarine warfare technologies and techniques (hence detailed technical information is seldom forthcoming from governments), the potential for uncontrolled or unwanted escalation during the conventional phase of a war, some extremely difficult command and control issues, and a potential new area for arms control between the superpowers.

Attacking strategic missile-carrying nuclear submarines, however, already involves more than just the two superpowers. First, three other nations, one a Pacific power, have such warships: China, France, and the United Kingdom. Second, many nations have existing antisubmarine forces that might be positioned, capable, and potentially involved in military operations against the nations who have submarines carrying strategic ballistic or cruise missiles.

Canada, for example, will apparently join those nations with nuclear-powered submarines that will routinely deploy in the ocean areas where strategic missile-carrying submarines operate--although one should recognize that strategic antisubmarine warfare is conducted with more than nuclear-powered submarines. Navies of Japan, Australia, New Zealand, and France all support antisubmarine warfare forces capable of strategic antisubmarine warfare operations against missile-carrying submarines.

This prospect - of many nations potentially conducting strategic antisubmarine warfare and thus upsetting deterrence - reinforces the Soviet concept of "equal security." The Soviet military claims that in order to have the same level of security as enjoyed by the United States, it must have a defensive capability against all possible enemies.²

An interesting question to ask the Soviet military is if their planning formula for strategic parity includes China, and if so, how? An understanding of equal security is necessary since increased conventional naval force deployments by Australia, Canada and Japan made to reduce the perceived need for American forward deployments of nuclear weapons, might serve to heighten, rather than reduce Soviet anxieties about their nuclear forces at sea.

Many people believe that deterrence prevents war from erupting. Deterrence, however, is only a theory and opinions differ as to what best deters. In general, deterrence is thought credible when one nation is convinced that another nation has both the capability to defend and/or punish in response to an attack and the political will to do so.

There are three major schools of deterrence theory. The first says that you best deter war by maintaining the capability to passively and actively prevent an enemy from achieving his goals and objectives. Soviet ballistic missile, air, and civil defenses located in the Far East Theater of Military Operations are examples of passive measures nations take to prevent damage

to their homeland. Modern Soviet offensive ballistic missiles in Asia that can strike U.S. or allied air, submarine, or missile bases before they can be used are examples of active "defenses" that support this theory of deterrence.

Recent Soviet military statements support the view that the preferred strategy for deterrence is based upon such war-fighting concepts. For example, the current Soviet Minister of Defense recently stated that: "As for strategic nuclear forces, sufficiency today is determined by the ability to prevent a nuclear strike from being launched with impunity against our country in any situation, even the most unfavorable."³

On the other hand, according to a recent article by Soviet academics "...the defensive doctrine and strategy do not envisage...preventing a retaliatory strike by the adversary, or reducing the consequences of this strike to an acceptable level."⁴ Who are the more authoritative in matters of Soviet military doctrine and strategy--academics or the military? Without access to declassified military documents, readily available to the USSR when trying to assess U.S. intentions, the West is forced to rely on expert judgment interpreting such conflicting statements. At a minimum, the West will need to watch the views of Soviet political leaders on these issues to resolve which group, the military or academia, speaks for the Party.

The second major theory is that deterrence is served best by the capability to punish an aggressor if he breaks the peace.

The latter theory is also described as a "minimal" or "assured destruction" theory of deterrence; i.e., one need not field sufficient forces to prevent an aggressor from damaging one's homeland but merely a minimal force that can retaliate with offensive forces - even if forced to absorb a first strike.

If shared by two nations, this second theory of deterrence based upon retaliation is known as "mutual assured destruction" or MAD. The unilateral dismantling by the U.S. of its only ballistic missile defense site at Grand Forks, North Dakota in the 1970s and similar U.S. actions virtually eliminating air and civil defenses are actions compatible with "mutual" assured destruction. Unfortunately Soviet retention and expansion of active and passive defenses, suggests they do not accept the assured vulnerability aspects of the "MAD" theory of deterrence.

When discussing the Soviet theory of deterrence, the former Chief of the Soviet General Staff, Marshal of the Soviet Union Nikolai V. Ogarkov stated that "...Soviet military doctrine says the Armed Forces must be able not only to defend the country against a potential aggressor by countering it with passive means and defensive tactics but also to deliver crushing counter-attacks..."⁵ Such a view is not compatible with MAD theory which assumes that nations will leave themselves essentially defenseless against nuclear strikes.

A third school of deterrence subscribes to the philosophy that one should maintain forces necessary to "prevent" a strike against oneself but that in any case, adequate secure reserves

are needed to ensure retaliation if prevention is not possible. The U.S. terms this "countervailing" strategy.

Whether one chooses prevention, minimal deterrence, MAD, or countervailing strategy as the preferred theory of deterrence, there is general agreement by all nuclear powers that a nation must have a survivable/secure nuclear reserve force capable of striking back, even if subjected to a coordinated, surprise first strike.⁶ This reserve retaliatory force must be perceived by the other nation as having the credible capability of a retaliatory strike, even after worst-case enemy actions.⁷

Traditionally, nations have looked to navies to provide strategic nuclear delivery systems that can survive enemy attacks and threaten nuclear retaliation. Western strategists often argue that it is the knowledge that, despite the relative vulnerability of land-based missiles and the problems in penetration by air-breathing systems, sufficient warheads remain on undetected submarines at sea - a threat so powerful that no nation would risk the first strike.

The Soviet Union fired a ballistic missile from a submarine in 1955, well before Polaris appeared in the U.S.. Early Soviet missiles that required a submarine to surface before firing were replaced by more advanced models that could be launched from under the sea. As sea-based ballistic missile ranges improved, Soviet submarines did not have to close an enemy's shorelines in order to threaten North America. Some Soviet submarines carrying ballistic and cruise missiles have, over the years

however, continued their pattern of patrolling off the shores of the U.S. and Canada.

The U.S. Navy's first maritime nuclear deterrent force was Regulus cruise missiles on submarines and surface ships. As technologies permitted, sea-launched ballistic missiles were developed and married to submarines. The Soviet Union ignored this shift from sea-based cruise missiles to ballistic missiles and continued building its missile submarines capable of launching cruise missiles against either sea or shore targets.

The SS-N-8 Sawfly sea-based ballistic missile, first deployed by the USSR in 1972, gave them the unilateral advantage of deploying some strategic missile submarines close to their own shoreline while threatening targets in North America. The Soviets argued in the first Strategic Arms Limitations Talks (SALT), at the same time as they were first deploying the SS-N-8, that they required compensation in numbers of missile submarines because their shorter missile ranges required them to sail their submarines long distances to forward patrol areas. SALT I gives the Soviet Union a significant advantage in numbers of missile submarines; indeed, the USSR has almost twice as many of these submarines as the rest of the world combined. The advantage in numbers of submarine hulls is realized once one attempts to plan campaigns to attack all of them.

Submarines on patrol near the Soviet Union are deployed in areas termed "bastions" by Western analysts. The term refers to USSR home waters where the Soviet military can bring to bear

favorable geography and forces to protect their missile submarines. There is ample literature, hardware, and exercise evidence to support the contention that this is the preferred method of Soviet deployment for the bulk of its navy.⁸

An interesting asymmetry developed between Western and Soviet navies. The U.S., French, and Royal Navies retained the shorter range Polaris, Poseidon, M-20 and M-4 missiles and relied on stealth to provide security for their ballistic missile submarines on patrol. The Soviet Navy, on the other hand, deployed its newer submarines in bastions, such as the Sea of Okhotsk, with a protective array of air and sea power and favorable geography to ensure that its forces retained their "combat stability" (mission capability). Implicit in the deployment of protecting forces providing combat stability to strategic missile-carrying submarines is the assumption that the Soviets obviously expect them to be attacked during war.

Despite these asymmetries, nuclear-capable nations could feel relatively secure that no matter what happened during the conventional phase of war, or despite the use of some of one's own missiles in initial nuclear strikes, "sufficient" nuclear forces would remain to credibly threaten an enemy with an unacceptable response. No nation would likely be forced into considering its sea-based nuclear force should be used early in a war because they might be lost to conventional combat actions against it.

Many in the West feel that offensive operations should not be taken against Soviet missile submarines during the conventional phase of a war, since it would automatically trigger vertical escalation because the USSR would rather use than lose them. Implicit in that argument is the assumption that Soviet naval submarines with missiles constitute the nuclear reserve of the Soviet military - the force that threatens the West with retribution no matter what happens to the other two legs of the triad.

I doubt that the Soviet military could ever allow one service, especially Navy which is ranked fifth among the Soviet military services, to maintain the only reserve of nuclear forces and, therefore, to be the decisive branch of combat arms in a war. Soviet military strategy is a combined-arms approach to warfare in which all major branches are given a role influencing the "outcome" of the war.

The Soviet Union has more land-based missile and bomber forces than the West feels it needs, even if Soviet analysts assume that the West would strike first. If the West were to strike first, there are simply not enough weapons to disarm the Soviet military. Therefore, some land-based missile and bomber forces must be included in reserve forces as well. There is no evidence in Soviet military literature that either the Navy or sea-based nuclear systems will be the force that directly influences the outcome of a war. It would be decidedly non-Russian to allow the navy to field the only nuclear reserve.

Another problem with viewing Soviet missile-carrying submarines as only a nuclear reserve is that older and shorter-range missiles deployed off the coasts of enemy nations can perform unique damage limitation missions.⁹ For example, Soviet SS-N-6 Serb missiles aboard Yankee submarines can strike U.S. Strategic Air Command bases or vital command, control, and communications facilities much more quickly than can intercontinental missiles launched from the USSR, or from protected bastions. Such missions are consistent with Soviet military strategy and tasks given to the Soviet Navy.

Some of these sea-based systems deployed in theater oceanic areas also allow the Soviets to circumvent the loss of SS-20 Saber missiles, dismantled by the new INF Treaty. Indeed, the recent repositioning of Yankee submarines from the North American coasts to theater waters¹⁰ not only suggests that they served a role not associated with a nuclear reserve but provides more evidence that the Soviet military has not given up its preferred strategies for war fighting thus ensuring that they can dominate the nuclear escalation decision. As the Soviet Navy deploys hard-target capable warheads, it is likely that the number of submarines assigned to first strike missions will increase.

Fortunately, when the Soviet Union deploys its submarines outside protected bastions, it moves them closer to enemy antisubmarine warfare forces. Because then, of military utility and lack of survivability, it is likely that some sea-based systems have a role in a first nuclear strike, rather than only as a part of the strategic nuclear reserve.

If these short-range sea-based systems deployed within striking range of Canada, Japan, China, and Korea were a part of a secure nuclear reserve, the Soviets should have withdrawn them to protected home waters, such as the Sea of Okhotsk, where they could present a subsequent escalatory threat if surge-deployed close to enemy shores. Instead, by siting them in relatively exposed forward areas, we must conclude that they are designed to be used as part of a combined arms attack in the event of war, or that the Soviets have a high regard for their survivability. It could also mean that they serve only a pre-war political role and are either expendable in combat, or would be repositioned.

Another theory suggested is that the USSR intends to hide these units in the territorial - and perhaps internal - waters of other nations.¹¹ Although originally suggested with regard to the Baltic, is this option present in Japanese waters or the Canadian far north? It would certainly present unique challenges. For example, what should be the Canadian response if it again detected a Soviet submarine near its shores--this time a missile-carrying submarine in Arctic territorial waters during a NATO crisis not directly involving Canada? Does the response change if a NATO/Warsaw Pact war is raging in Europe but the submarine is in Canada's Pacific 200-mile fisheries zone?

From 1970 until his replacement in 1985 as Commander-in-Chief of the Soviet Navy, the late Admiral of the Fleet of the Soviet Union Sergei Gorshkov described U.S. aircraft carriers as being a portion of the reserve of strategic nuclear forces. There has never been any consideration in Soviet military

strategy, military art, naval operational art, or naval tactics to withhold attacks against aircraft carriers because they might constitute a portion of our nuclear reserve.

Despite the large portion of Western missile submarines deployed in the deep ocean expanse, and that some or even most of these carry warheads for the Western nuclear reserve force, Soviet military spokesmen have openly stated that the destruction of enemy sea-based nuclear assets is a strategic goal for them and a main mission of the Soviet navy in any future war.¹² Such statements, coupled with aggressive antisubmarine warfare programs and other actions taken to reduce further homeland vulnerability to attack, reinforce the conclusion that the USSR has never accepted the theory of assured vulnerability required by mutual assured destruction. Fortunately for the West, Soviet antisubmarine warfare capabilities have never matched their aspirations.

Essentially, to the Soviet military, it is far better to strike an enemy submarine in the conventional phase of a war, and destroy perhaps hundreds of warheads before they launch, than allow that threat to exist. The destruction of even one Ohio class ballistic missile submarine armed with Trident C-4 missiles might cause the loss of 192 nuclear warheads. This damage limitation mission is totally in conformance with Soviet military strategy for deterrence.

The Soviet theory is that, the capability to alter the correlation of forces by sinking enemy strategic missile-carrying

submarines on the high seas during the conventional phase of a war will both prevent nuclear escalation in the event of war and limit damage to the Soviet homeland if the war turns nuclear. There is no literature demonstrating Soviet fear that nuclear escalation might result from such operations; they apparently do not anticipate that the the U.S. - or any enemy nation - would initiate nuclear war over the loss of strategic missile-carrying submarines during the conventional phase of a war. The single combined armed military strategy includes a role for ground forces to take out NATO land-based nuclear forces and thus prevent escalation.

Consider, for example, the following recent Soviet military statements regarding attacking an enemy's nuclear forces during the conventional phase of a war. Why should we assume that naval operational art is any different?

"The destruction of the nuclear attack weapons and the maximum weakening of the enemy's nuclear might have come to hold the central place in the fight for fire supremacy. It is felt that the enemy nuclear attack weapons must be combated continuously and with all weapons."¹³

"Of enormous significance is the primary hitting of enemy nuclear missile weapons and high precision weapons even before the moving up of the main grouping of one's troops into the jump-off areas for the offensive and for launching counterstrikes."¹⁴

"The following have become the most important of the Army's missions: destroying the enemy's operational-tactical nuclear strike weapons...The first operational echelon in key sectors was also to include tank formations, which were to be used for a quick advance into the enemy's depth of position, for destroying his nuclear strike weapons in coordination with assault forces, etc."¹⁵

NATO and U.S. declaratory maritime strategies have long included the possibility of offensive action against Soviet

strategic missile-carrying submarines during the conventional phase of war.¹⁶ The reasons are essentially those espoused by the Soviets. A strong and additional side benefit to NATO is that if the Soviets are engaged in defending their bastions, only minimal residual forces may be available for open-ocean strikes against vital allied sealines of communication. This relationship, between fighting in bastions and the residual forces left over for defense/attack of open ocean sealines of communication is generally expressed in terms of North Atlantic scenarios; not Pacific.

Whether an enemy submarine carries nuclear or conventional munitions, a prudent assumption military planners should make before a war is that any enemy submarine found off one's shores is a potential threat that must be neutralized in the event of armed conflict with that enemy. Forward-based submarines are prime targets for enemy navies, since they represent not only a first strike nuclear threat but also provide vital attack assessment and other intelligence information--and, because they present a conventional torpedo and missile capability. Additionally, every submarine sunk during the initial stages of a war is one less that can be re-used if reloaded. Most nations have the necessary antisubmarine forces to deal with Soviet intruders close to their shores.

Actually attacking a missile-carrying submarine is a far more difficult task than generally credited by civilian analysts and academics unfamiliar with salt water antisubmarine warfare

operations. One must assume, however, that submarines deployed near an enemy's main antisubmarine forces are more likely to be destroyed than those trying to avoid them.

Attacking enemy missile-carrying submarines in defended bastions, however, is much more difficult and will undoubtedly involve a high cost. Yet if the benefits of such actions are substantial, one must assess the relation of benefits to costs. For example, if France or China took every possible precaution to ensure the survival of their sea-based nuclear forces during the conventional phase of a war, but the Soviets could destroy them anyway, then France or China might not have any nuclear "cards" left to play at war termination--and, therefore, might not participate. Such a major political result might be worth the cost of a few, albeit high cost, Soviet antisubmarine warfare units.

Posing such a strategic antisubmarine warfare capability does not necessarily undermine deterrence but rather parallels it by reinforcing the belief that deterrence is best served by a credible capability to prevent an enemy from achieving his own war aims. The U.S. understands that to deter the Soviets, the West must present a capability that evidence shows that the Soviets respect. A credible capability to limit damage to its homeland by attacking nuclear weapons delivery vehicles during the conventional phase of a war is a principle that the Soviet military has advanced for years and, conforms totally with the Soviet philosophy of deterrence.

In a war, attacking an enemy force before it attacks you is militarily sound.¹⁷ Attacking enemy nuclear-capable forces--especially forward deployed units capable of time-urgent strikes against critical forces--also makes good military sense. The numbers of strategic missile-carrying submarines of all types on forward deployments or in bastions as well as air-breathing and land-based weapons systems, in the Soviet inventory make it unlikely that the West could ever destroy sufficient numbers to deplete the Soviet strategic nuclear reserve.

This view is shared by the authors of two recent Western studies¹⁸ and also apparently by Marshal Ogarkov. Ogarkov has written extensively over the past few years that it is impossible to destroy all of either superpower's means of nuclear attack.¹⁹ Marshal of the Soviet Union S. Akhromeyev, the new Chief of the General Staff, echoed this theme recently in an article.²⁰ If the Soviet military does not view a disarming first strike possible, then they must view their total nuclear reserve as being secure, even under the worst case scenario.

The loss of a submarine at sea is not likely to "require" a nation's political leadership to seek overwhelming retribution through nuclear escalation. Conversely, opportunities to reduce enemy nuclear forces in the event of war should be seized, even if results are likely to be modest and require some extended period of time to achieve. Soviet missile-carrying submarines should not be listed as targets that require authorization to attack, once armed conflict commences. The Soviet military has

stated repeatedly that they will attempt to attack enemy missile submarines during a war; we should attack theirs.

Every submarine destroyed reduces the number of warheads whose use could be threatened by the Soviet Union during the conventional phase, or would be used in nuclear combat operations, or could be threatened/used during the termination phase of the war. Even the threat of such actions will cause the Soviets to consider defending their missile submarines in bastions and is likely to influence the numbers of submarines left over for attacks on the distant sealines of communications.

It is unlikely that any nation will make the political decision to escalate to nuclear warfare for actions taken against its fleet at sea, even if units damaged or sunk are strategic nuclear delivery vehicles. No matter how much we talk before war about avoiding actions that might risk military reaction, in war, political leaders will demand options from their military for actions to create as favorable terms of war termination as can be achieved. Altering the nuclear correlation of forces by attacking an enemy's submarines is the type of step that might lead to war termination before vertical escalation or might not lead to vertical escalation at all.

II

A major issue now being raised is that, with improvements in technology, the Soviets might elect to send the majority of their strategic missile-carrying submarines and additional fleet units into the deep oceans in the event of a crisis, or war, instead of

keeping them in bastions--a Soviet version of the U.S. Maritime Strategy. We can debate Soviet future intentions forever, but a few things should be kept in mind. First, under combined arms warfare, there will never be a Soviet Maritime Strategy--only one combined military strategy with naval operational art and tactical components. Second, the Soviet Navy is not a first rate power projection Navy capable of conducting distant water major fleet operations in high risk environments. The size, however, of the Soviet Pacific Fleet gives all Pacific nations cause for alarm. One hopes that the new "defensive" military doctrine and the standard of "reasonable sufficiency" will cause the USSR to reduce its commitment to military growth in the region.

Another Soviet option is to deploy submarines in restricted waters, so for geographic, military, political, and legal reasons, other nations would find it more difficult to conduct offensive antisubmarine warfare operations. Tom Clancy raised such a possibility in his fictional Red Storm Rising, when Soviet strategic missile submarines deployed in the White Sea, portions of which are acknowledged internal waters of the Soviet Union.

Are there other areas in which nations might want to hide their strategic missile-carrying submarines? An examination of the ocean areas of the Pacific or Arctic might reveal some alternatives to open-ocean or bastion deployment. We should remember that if sea-based nuclear forces primarily constitute a part of national nuclear reserves, there is no requirement that these submarines routinely patrol within missile range of their assigned North American targets. Deploying submarines in

restricted waters close to shore offers the Soviet Union opportunities to hide submarines, atone for deficiencies in submarine and antisubmarine warfare technology, and concurrently keep all Pacific targets covered.

Additional political and legal implications regarding these type deployments would certainly affect both Soviet and Western decision-making. For example, should nations conduct offensive naval operations in or near enemy/other nation's home waters, namely exclusive economic zones, fishery zones, territorial or internal waters, during the initial conventional phase of war? Should operations be conducted in an enemy's home waters, in a different theater of operations during a limited or general war, when actions thus far were confined to another distant theater; Pacific operations when the war is generally limited to the Atlantic or Southwest Asia?

This type of scenario becomes even more interesting if we consider that some of these waters are viewed by the U.S. as subject to high seas rights of navigation yet are now or in the past have been considered in some cases by Soviet writers, and in a few instances officially, as closed seas, historic, regional, or territorial bays or seas, or internal waters. For example, the Sea of Okhotsk has been referred to by Soviet writers, but never officially, as a "closed sea." Similarly, some writers have described the Sea of Japan as a "regional sea" to which access would be unrestricted only in peacetime. Both seas are

acknowledged as areas for Soviet ballistic missile submarine deployments.

Perhaps the most significant official claim is to Peter the Great Bay, off Vladivostok, as historic and thus internal waters, enclosed by a baseline of 106.3 nautical miles! I use the term significant since all nations acknowledge the legal restrictions on sailing in another nation's internal waters during peacetime and no nation accepts such a lengthy baseline. The 106 nautical mile line which the Soviets claim closes off Peter the Great Bay is, at one point, more than twenty miles from any land.

Some Soviet writers have taken the position that the Chukchi Sea, in the Arctic, is a "territorial bay." A similar principle, the "historic bay," is recognized in the West with Canada's Hudson Bay and Strait, and the U.S. Monterey Bay as examples. Whether or not the Sea of Okhotsk is a "closed sea," or the Chukchi Sea is a "territorial bay," or the legal significance of such statements, it is clear that all nations attach more importance to areas of the ocean close to its shores than they do to the high seas.

Japan has stated its intention to conduct maritime operations out to distances of 1000 n.m. from its shores. What is the reaction of the Soviet military to such statements since the expected zone of Soviet sea-denial operations includes most of those same waters? The Sea of Japan and critical straits of egress are obvious areas of military operations for Soviet military and maritime assets during a war. What will the

Japanese response be if one of its merchants or warships is sunk on the high seas in a war? Does the response change if that ship is sunk within this 1000 n.m. zone of interest? Or within Japanese territorial waters.

Might Japanese self-defense measures upset the USSR, such as Japan mining its own territorial waters during a superpower crisis? What would the Soviet reaction be if mines planted in Japan's territorial waters then broke free and damaged a Soviet ship in one of the straits where transit passage is guaranteed? Remember the different reaction of the world's maritime nations to Iranian mines in Persian Gulf international waters as differentiated by mines found in territorial waters.

We know that nations react when other nations sail their warships within "territorial waters," despite the internationally recognized right of innocent passage.²¹ Nations will very likely react to attacks within its internal or territorial waters, closed, historic, regional, or territorial bays or seas in a different manner than to attack forward-deployed units on the high seas. Nations will similarly react differently if other nations remain in these waters for extended periods of time or conduct combat therein during wartime.

These geographic, military, political, and legal ramifications illustrate the ratchet effect possible through horizontal escalation at sea. Unique escalatory steps can be taken at sea to send clear political signals to other nations without resorting to vertical escalation and nuclear war.

Horizontal escalation has a number of maritime "rungs" that must be thoroughly investigated by naval and political leaders and planners, and understood by those who otherwise criticize such plans. It appears that the Chief of the General Staff of the Soviet Armed Forces and the First Deputy Defense Minister agrees with the concept of horizontal escalation: "...despite the claims of Western politicians and strategists, major military clashes today can no longer be confined within a specific geographic area."²²

There are many opportunities to analyze horizontal escalation options in the Pacific region and specific actions that can be taken to make definite political statements by navies. The point is that there are many options besides vertical escalation to nuclear war. The most common issue raised is whether or not navies should engage each other in the Pacific if the war originates in Europe. Is it realistic to expect them to continue normal peacetime behavior--rendering honors when they pass?

III

Additional political and legal aspects of strategic ASW have been raised, with suggestions that arms controls regulate such potential operations. Proposals to restrict deployments of strategic missile-carrying submarines and concomitant limitations on antisubmarine warfare have been around for years, attracting former U.S. President Jimmy Carter. More recently, these ideas have been again raised by Soviet Communist Party General Secretary Mikhail Gorbachev in his October 1987 speech in Murmansk.

Most of these proposals would create "safe" zones for the deployment of strategic missile-carrying submarines. Within them, all antisubmarine warfare operations would be restricted. Other proposals include limits on strategic antisubmarine warfare or its technological development. "Safe" zones would restrict operations by virtually all warships, hydrographic vessels, or naval auxiliaries from vast areas of the high seas since it could be argued that even routine transit would result in the conduct of some phase of antisubmarine warfare (visual search at a minimum) or related antisubmarine warfare research (fathometer soundings at a minimum). Would we then need to restrict fishing vessels and merchant ships since these would also be conducting visual searches and soundings on bottom depth?

Even if one could verify compliance with such measures, the net effect would be more beneficial for the Soviet Union than for the West. In effect, such an arms control regime would require the West to identify the areas of the ocean in which its strategic missile-carrying submarines deploy. The latter would be a major contribution to the solution of the Soviets' antisubmarine warfare search problem and a major threat that would weaken Western deterrence--including the deterrent umbrella extended over non-nuclear allies.

With the U.S. decision to reduce the number of its strategic missile-carrying submarines to significantly fewer numbers than those permitted under SALT I, it should be in all allies' interests to see the Soviet's search problem kept as complicated

as possible--as a hedge against a possible breakthrough in anti-submarine warfare.

A reduction in the number of ballistic missile submarine hulls under a future START agreement has three possible implications that should be kept in mind. First, substantially reducing the number of aim points for strategic antisubmarine efforts is a problem that must be constantly monitored by government intelligence agencies charged with assessing enemy antisubmarine warfare capabilities. Second, if the number of their ballistic missile submarines is reduced, it is likely that the Soviet Navy will have additional surplus general purpose forces that it could send into the expanses of the Pacific Ocean in time of war. Third, any future arms control agreement that involves nuclear weapons should not grant the USSR a unilateral advantage in the number of ballistic missile submarine hulls nor exclude the diesel-electric ballistic missile submarines and intermediate-range naval land-based nuclear cruise missile forces²³ that are now found in the Soviet Pacific Fleet.

Arms control limitations on antisubmarine warfare would significantly reduce current opportunities for gathering intelligence, a part of our national technical means of verification of existing arms control agreements. Analyzing such a possible arms control regime, verification problems abound. For example, if the West wanted to demonstrate that the Soviet Union was not complying with such an antisubmarine warfare agreement, but could do so only by exposing sophisticated technical or intelligence capabilities, then it would be forced

to chose between exposing the non-compliance and the related intelligence source or not publicizing the violation. Similar problems exist when a nation must decide if it will expose violation of territorial seas or other sensitive waters.

Attempting to regulate strategic antisubmarine warfare technology without similar restrictions on operational or tactical antisubmarine warfare technology is obviously neither practical nor in the best interests of NATO nations. If successful NATO defense strategy continues to depend upon the reinforcement/resupply of Europe from North America in the event of conventional war, then the allies will require advanced anti-submarine warfare techniques to get the convoys through. The Warsaw Pact can fight in Europe without relying on vulnerable sealines of communication and might therefore be in a better position to absorb antisubmarine warfare technology restrictions.

The West cannot afford to gamble on surrendering its lead in antisubmarine warfare technology by agreeing to any restrictions in a future arms control regime. For an antisubmarine warfare arms control agreement to be meaningful, it would have to be accompanied by a comprehensive regime regulating virtually all nuclear and non-nuclear forces and activities.

Other naval arms control proposals suggested by the USSR include restricting major maritime exercises in the Pacific to one or two each year. This may be a satisfactory situation for continental powers like the Soviet Union but would clearly be insufficient for seapowers like the United States or Japan.

Soviet proposals for zones of peace or nuclear free zones²⁴ at sea seek to undermine the NATO strategy of flexible response; i.e. the allies currently have options other than conventional defeat or immediate escalation to a major nuclear war. Retaining the full spectrum of war fighting options with its fleets is in the best interests of the NATO alliance.

It is fitting to consider the relationship of the outstanding climate for international relations that exists between the United States and Canada to the type of arms control agreements that exist between our two nations. Did the Rush-Bagot Treaty of 1817 cause or start these good relations? Is the absence of any major arms control agreements between the U.S. and Canada, instead, indicative of the fact that nations need to resolve their substantive economic and political differences instead of using arms control as a surrogate for doing so?

The point of arms control is not simply to sign treaties. The true measures of worthwhile arms control agreements are if they: (1) reduce the likelihood of war, or (2) reduce the consequences of war, or (3) reduce costs. Arms control measures should not be taken in isolation but rather in a integrated fashion with national security policy and in conjunction with allies.

IV

Discussions of scenarios of nuclear escalation dominance and vulnerability should do more than focus on vertical escalation and the U.S. Navy Maritime Strategy. Nations of the Pacific region have a much richer agenda of topics for discussion than

those. We must understand those two topics for certain but there is a much broader range of issues to be considered.

The classic question under consideration is what political-military actions should be taken by Pacific states, or in the Pacific region, during a global war between the superpowers, which originated in Europe. Although that scenario is the least likely to occur, it still forms the basis for discussion and factors into programming and war planning. There are fundamental questions yet to be answered, such as: (1) do Pacific forces belonging to the superpowers or Canada remain in the Pacific or transfer to other theaters of operations in the event of a war originating outside the Pacific; (2) will the superpowers and their allies fight on the strategic offensive or strategic defensive in the Pacific if the war originates in another theater; or, (3) what type actions should be planned for against/in defense of superpower allies? This latter question directly involves actions that might be taken against the Soviet overseas base in Vietnam.²⁵

Additional planning scenarios might include a superpower war with that war originating in the Pacific instead of Europe or Southwest Asia. Is such a war realistic or not?²⁶ Could such a war be successfully fought without allies? To decide on answers to these questions, planners are forced to consider such scenarios and to flesh them out and subject them to simulations, gaming, and hard analysis.

Doing so does not mean that strawman scenarios will result in specific war plans nor such operations at the time of execution. For example, just because the Soviets actually have nuclear weapons in Europe and have an offensive military strategy, it does not follow that they will attack tomorrow with nuclear weapons nor use such weapons during the initial period of an armed conflict.

For years, the West has manipulated the USSR with an implicit threat of conventional attack against its homeland in the event of a war. One can speculate on the effect of a few conventional sea-launched cruise missiles on the populations of Japan, Australia, Canada, or the U.S., even if those weapons were employed only against military targets in coastal regions. Why, however, should we assume that warheads will be nuclear?

Escalation should not be viewed as having only a vertical component leading automatically to global nuclear war. There are significant military actions including those taken by navies, that can escalate warfare by expanding the confrontation to new geographic areas or by extending the conflict over time. Both, construed as actions taken to "prevent" enemy victory, or at least to "punish" aggression, fit well into normal deterrence theory. Retribution for attack need not take the form of nuclear strikes--indeed today Canada has no means of direct nuclear retaliation against the Soviet Union but makes its contribution to allied nuclear efforts via non-nuclear actions and apparently is prepared to contribute to allied efforts to fight in theaters of operations outside of Europe.²⁷

These dimensions of escalation must be considered since the Pacific region weighs heavily in both. For example, the Soviets "swung" Pacific fleet forces to Europe during the Great Patriotic War; will they do so again in a future war? Will either superpower assume the offensive in the Pacific even if the war starts in another theater?²⁸ The West considers its ability to sustain war in Europe or Southwest Asia in terms of resupply of spare parts, etc. that it normally receives from Pacific nations; not just in terms of sending material and oil from North America to the primary theater of land warfare. Similarly, the West considers the sustainability of Soviet European warfighting campaigns in terms of resources to be transferred from its Pacific region to Europe. The role of navies in these types of scenarios should be obvious.

Perhaps the most likely scenarios to be considered should be developed by regional experts: what likely crises could evolve between the superpowers over the next few years? What are the likely roles of major regional actors in such crises? Would any of these crises lead to armed conflict? Will the new international law of the sea regime lead to additional confrontations between Pacific states and is it possible that the superpowers may be involved or drawn into these crises? What is the likelihood of nuclear coercion by any nuclear power in a non-nuclear crisis? Is it possible to take bold conventional actions during a crisis or war without strategic nuclear superiority and the ability to dominate the vertical escalation question? Does extended deterrence really depend upon nuclear balances or more

upon the conventional forces immediately available in a crisis area?²⁹ Does extended deterrence extend to naval forces?

Some very interesting scenarios have already been well discussed in the literature and do not need to be repeated here in detail. There are obvious needs for improved Canadian-U.S. cooperation in the area of intelligence and warning due to improved Soviet ballistic and cruise missile capabilities. Pacific nations at least need to consider their reactions to continued Soviet testing of land-based ballistic missiles and impacting in the vicinity of populated islands. Advanced notification of such missile tests is a needed confidence building measure. Similarly, incursions of Soviet submarines in and around the Straits of Juan de Fuca resulted in a joint U.S.-Canadian agreements for naval cooperation.

Developing or programmed forces also suggest some additional scenarios that have been discussed in the literature. The American strategic defense initiative (SDI) led to a great deal of debate over the role of Canada in such a system. Absent from many of those discussions was the role that navies might play as a part of that initiative--especially in the Pacific. This is a topic for which we especially like to have access to the Soviet internal literature. Since we already know that the Soviet "defensive" military doctrine includes strategic defenses and a defense of the homeland mission for their navy, it would be interesting to see how the Soviets intend to integrate their fleet into more advanced concepts of ballistic missile defense.

Despite the fact that neither SDI, nor its parallel air defense initiative, nor the new fleet of Canadian nuclear-powered submarines are even close to reality, we already have seen numerous articles dealing with expanding U.S.-Canadian military cooperation to other areas. Before we get into the details of expanding cooperation on the NORAD model we should first agree upon concepts of operations. Within the context of these alternative futures then, naval planners should outline the role of the militaries in general--and navies in specific and develop such concepts of operations. Planning should not be done from the bottom up; instead the national leaders involved should first outline some basic political terms of reference and then task their military staffs to flesh out concepts of operations and force requirements in a dynamic iterative process.

Creative scenarios are a good source of heuristic inputs for real and detailed political-military analysis or for games and simulations that are inputs to the planning process. Scenarios have no intrinsic value; their worth is based upon how well they serve to stimulate thought or allow successful completion of a simulation or game and thus improve planning.

At a minimum, the USSR ought to help the West better understand its military doctrine and strategy. If it really is based upon such war-fighting concepts as damage limitation and offensive first strike operations, the proper response is to deal with the Soviets as they see themselves, not in some theoretically "rational" manner that makes good sense to a Western academic. As much as we would like to see military

vulnerability accepted in the USSR so that we could then decide that "MAD" did describe the state of the world, it is up to the Soviets to demonstrate in both deed and word that their past behavior and policies have now changed.

Each superpower needs to recognize that what appears to themselves as a logical deterrent posture can appear to be very threatening to the other side. Existing Soviet land-based hard target kill capable ballistic missiles, an extremely robust defense against air-breathing systems, a commitment to strategic defenses, and an aggressive antisubmarine warfare research and development program coupled with existing Soviet declaratory military strategy look very much like an attempt to capture overall military superiority rather than merely providing a "sufficient" defense.

There are probably some modest arms control measures that can be pursued even now; measures clearly on the margin and not involving central systems. Unilateral actions, not mere words, to reduce excessive Soviet military capability and overseas deployments would be welcomed as significant confidence building measures. An agreement on notification of additional ballistic missile tests has just been signed. The existing bilateral incidents at sea agreement and high level meetings between the military staffs of each superpower appear to be constructive measures to minimize the potential for crises arising out of everyday operations and maximizing communications at a professional level.

I doubt whether it is wise to or if we can even separate out the Pacific as a region nor naval operations as a function that can be regulated by some new arms control measures in the absence of a comprehensive global arms control regime. It is the author's opinions that the current or projected situation in the Pacific region is not so severe that immediate arms control is needed. The two superpowers are adjusting to new technological opportunities and political realities and need time to come to a mutual understanding. The active participation of allied and neighboring nations will always be welcome.

NOTES

1. The 1962 reference is to then-Minister of Defense Marshal of the Soviet Union Rodion Malinovskiy "Standing Guard Over the Peaceful Toil of the Builders of Communism," Pravda, as reported by Moscow Domestic Service in Russian at 0600 GMT February 23, 1962. Since then this theme was regularly re-emphasized in the writings of then-Minister of Defense Marshal of the Soviet Union Andrey Grechko and the late former Commander-in-Chief of the Soviet Navy Admiral of the Fleet of the Soviet Union Sergei Gorshkov. Attacking Western ballistic missile submarines is also described in great detail in Marshal of the Soviet Union V.D. Sokolovskiy's classic Military Strategy, published in Moscow from 1962-1968.

2. A recent article authored by Soviet academics appears to challenge this view. See Vitaly V. Zhurkin, Sergei A. Karaganov, and Andrey V. Kortunov, "Challenges to Security--the Old and the New Ones," Kommunist, No. 1, 1988, p. 46 - "In the past, the levels of military sufficiency for the USSR in the European theater has been determined by the requirement to repulse any aggression, to defeat any possible coalition of hostile states. Today the task is new in principle: to deter, to prevent war itself. This task requires, in its own turn, a rethinking of many traditional postulates of military strategy and operational art..." From the open literature, it appears that there is a debate on-going within the Soviet Union over the level of future military expenditures. Thus far, the Soviet military has not changed its view.

3. General of the Army Dmitriy T. Yazov, "On the Military Balance of Forces and Nuclear Missile Parity," Pravda, 8 February 1988, p. 5 (emphasis added).

4. See A.G. Arbatov, A.A. Vasilyev, and A.A. Kokoshin, "Nuclear Weapons and Strategic Stability," SSHA: Ekonomika, Politika, Ideologiya, No. 9, September 1987, pp. 3-13.

5. Marshal of the Soviet Union Nikolai Ogarkov, article contained in English in the APN Military Bulletin, No. 2, October 1986, pp. 5-6. On the other hand, MAD appears to have been embraced by Genrikh Trofimenko in his The U.S. Military Doctrine, Moscow: Progress Publishers, 1986, p. 111--"...MAD is anything but an ideal situation but currently, in the absence of any other realistic alternative to mutual deterrence on the basis of a contractually formalized Soviet-U.S. parity in strategic armaments, it is the best basis for preserving strategic stability." Again, it appears that there is an on-going debate between the Soviet military and academics. The military, however, retains preeminence in the field of military strategy.

6. The debate over whether or not nuclear war could serve any rational political purpose has been on-going for years. Despite the well-known statements of political leaders from both the U.S. and USSR, it should be recognized that the "Soviet-American

strategic parity...makes direct use of the U.S. strategic nuclear forces against the U.S.S.R. difficult if not impossible (due to inevitable and devastating Soviet retaliation) and regional conflicts at a conventional (or tactical nuclear) level the most likely form in which armed forces can be used," Trofimenko, The U.S. Military Doctrine, p. 171. Such a statement obviously recognizes the political utility of nuclear weapons and threatening nuclear war. See also Colonel-General Makhmut Gareev, Deputy Chief of the Soviet General Staff, M.V. Frunze, Military Theorist, Washington, D.C.: Pergamon-Brassey's, 1988 (original Russian published by Voenizdat in 1985) p. 95, "A nuclear war...will not be any exception and in its essence it also will be a continuation of politics by violent means." Another interesting article is "Imperatives of the Nuclear Age" by Colonel-General Dmitri Volkogonov, Deputy Chief of the Main Political Administration, appearing in Krasnaya Zvezda in Russian on 22 May 1987, pp. 2-3. In this article, Volkogonov reproaches well-known Soviet writer A. Adamovich for questioning the morality of using nuclear weapons and casting doubts in the minds of Soviet servicemen tasked to perhaps fulfill their duty "to the end." Yu. Ya. Kirshin, V.M. Popov, and R.A. Savushkin have written, "A political position of a nation in modern war can change under the influence of nuclear strikes against its administrative and economic targets." See The Political Content of Modern Wars, Moscow: The Institute of Military History of the USSR Ministry of Defense, 1987, p. 265.

7. General of the Army Dmitriy T. Yazov, Minister of Defense, "Warsaw Treaty Military Doctrine - For Defense of Peace and Socialism," International Affairs, No. 10, October 1987, p. 6, "The parity ensures the possibility of taking retaliatory actions in any situation and doing unacceptable damage to the aggressor" (emphasis added).

8. See my Soviet Naval Forces and Nuclear Warfare: Weapons, Employment, and Policy, Boulder, CO. and London, Westview Press, 1986.

9. A.G. Arbatov, A.A. Vasilyev, and A.A. Kokoshin point out the value of submarine-launched ballistic missiles in "pre-emptive strike(s) against the other side's early warning, command, control, and communications systems," op. cit.

10. Statement of Rear Admiral William O. Studeman USN, Director of Naval Intelligence, before the House Armed Services Seapower and Strategic and Critical Materials Sub-committee on 1 March 1988, p. 22.

11. Roger W. Barnett, "Soviet Strategic Reserves and the Soviet Navy," in The Soviet Union: What Lies Ahead, Washington, D.C.: U.S. Government Printing Office, 1985, p. 601.

12. Found extensively in writings and speeches, e.g. Sokolovskiy's, Military Strategy; and reinforced over the years by the late Admiral of the Soviet Union S.G. Gorshkov, e.g.

"Certain Questions Concerning the Development of Naval Art," Morskoy Sbornik, No. 12, 1974, and The Sea Power of the State, 1979.

13. Lieutenant General P.A. Zhilin, Ed., The History of Military Art, Moscow: Voenizdat, Chapter XV, Section 4, 1986."

14. Colonel-General Makhmut Gareev, M.V. Frunze, Military Theorist, p. 221.

15. Lieutenant General M.M. Kir'yan, Ed., Progress in Military Technology and the Armed Forces of the USSR, Moscow: Voenizdat, 1982, pp. 316-317.

16. The North Atlantic Treaty Organization: Facts and Figures, Brussels: NATO Information Service, 1981, p. 14. Admiral James D. Watkins, "The Maritime Strategy," Supplement to the U.S. Naval Institute Proceedings, January 1986. Captain Peter M. Swartz, "The Maritime Strategy Debates: A Guide to the Renaissance of U.S. Naval Strategic Thinking in the 1980s," NPS-56-88-009, Monterey, CA, Naval Postgraduate School, 24 February 1988, 90 pp.

17. Lieutenant General Dmitriy Volkogonov, The Weapon of Truth, Moscow: 1987, p. 132, "we know that in critical movements we must be ready to act extremely decisively and quickly so that history does not leave us time for a failure."

18. Tom Stefanick Strategic Antisubmarine Warfare and Naval Strategy, Lexington, MA and Toronto: Lexington Books, 1987, pp. 118-120; and Donald C. Daniel Anti-submarine Warfare and Superpower Strategic Stability, Urbana and Chicago, IL: University of Illinois Press, 1986, p. 151.

19. Marshal Ogarkov interview in Krasnaya Zvezda on 9 May 1984, pp. 2-3, his article "On the 40th Anniversary of the Great Victory," Kommunist Vooruzhennykh Sil, No. 21, November 1984, pp. 16-26, and his book History Teaches Vigilance, Moscow: Military Publishers, 1985, p. 89.

20. Marshal of the Soviet Union S. Akhromeyev, "Superiority of the Soviet Military Science and Soviet Military Art as one of the Most Important Factors of Victory in the Great Patriotic War," in Kommunist No. 3, February 1985, pp. 49-63.

21. LCDR Ronald D. Neubauer, JAGC, USN, "The Right of Innocent Passage for Warships in the Territorial Sea: A Response to the Soviet Union," Naval War College Review, Vol. XLI, No. 2, Spring 1988, pp. 49-56, raises some interesting points regarding this issue. Despite the position of the Soviet delegation during UNCLOS III, Soviet writers now advocate an innocent passage regime for foreign warships that is contrary to those accepted during the negotiation of the Law of the Sea Treaty. Soviet domestic law and administrative regulations attempt to restrict innocent passage of warships through Soviet territorial waters to some five areas in every ocean and sea rather than throughout the

entire expanse of the territorial sea. This behavior has grave repercussions for all nations with navies but also for anyone who expects the Soviets to actually behave in a manner consistent with positions taken during international negotiations and as prescribed in treaties.

22. Marshal of the Soviet Union S. Akhromeyev "The Great Victory and Its Lessons," Izvestiya, 7 May 1985, p. 2. Genrikh Trofimenko states in The U.S. Military Doctrine, p. 175 that: "As to the various 'bold' strategic proposals put forward in the wake of Weinberger's concept of escalation...like the one on securing secession of Soviet Siberia as 'exploitation of an attack from U.S. territory against the Soviet Far East'--they can only be dismissed as ravings of an irrational mind." Elsewhere in this book, Trofimenko credits Rear Admiral Alfred T. Mahan with being the single outstanding military officer through the end of World War II who was also a political-military strategist. He then favorably describes Mahan's suggested strategy for the containment of Imperial Russia by actions taken on the flanks. See pp. 10 and 35.

23. Mobile SSC-1b Sepal battalions of land-based intermediate-range cruise missiles have been excluded from regulation under the new INF treaty. Although designed for coastal defense, these and other naval sea-based cruise missiles can be used against land targets. See Steven J. Zaloga, "Before INF Treaty is Signed, US Must Consider the Forgotten Missiles," Armed Forces Journal International, Vol. 125, No. 10, May 1988, pp. 36-38.

24. The South Pacific Nuclear Free Zone agreement signed in Rorotonga in 1986 contained an escape clause for the Soviet Union whereby they would not be required to comply in waters of any signatory nation that allowed visits by U.S. warships.

25. Also referred to by the USSR as a technical maintenance, supplies, and recreation facility.

26. Francis Fukuyama, "Asia in Global War," Comparative Strategy, Vol. 6, No. 4, pp. 387-413, concludes that a superpower war originating in the Pacific is extremely unlikely.

27. Challenge and Commitment: A Defense Policy for Canada (White Paper), June 1987, p. 21.

28. The U.S. Department of Defense Publication Soviet Military Power: An Assessment of the Threat--1988 (U.S. Government Printing Office, 1988), p. 123, suggests that neither of the superpowers would be fighting on the strategic offensive in the Pacific. "Indeed ground force operations by the Soviet Union and/or the United States in the region will likely be limited to amphibious operations to secure critical straits or islands guarding Soviet peripheral seas." "U.S. objectives in the event of global war are: to conduct an active forward defense of the United States by defending LOCs in and to the region; to counter attacks in-theater against our allies and other friendly nations;

to support our deployed military forces in the region; and to conduct offensive actions against Soviet forces in order to neutralize Soviet military capability and inhibit Soviet transfer of Far East forces to the European theater."

29. Paul Huth and Bruce Russett, "Deterrence Failure and Crisis Escalation," International Studies Quarterly, Vol. 32, No. 1, March 1988, pp. 29-45, suggests that extended deterrence is more sensitive to immediate and short-term balances of forces than the possession of nuclear weapons.

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