

COUNTERFORCE AND THEATER MISSILE DEFENSE:

**CAN THE ARMY USE AN ASW
APPROACH TO THE SCUD HUNT?**

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March 27, 1995

The author is Associate Professor of National Security Affairs at the Naval Postgraduate School, Monterey, CA. A somewhat different version of this report was originally prepared for the Ballistic Missile Defense Office, Washington, DC. The views expressed in this monograph are the author's and do not necessarily represent those of the Ballistic Missile Defense Office, the Department of the Navy or the U.S. Government. The author would like to thank John Arquilla and George Conner for their comments on earlier drafts of this monograph.

Comments pertaining to this report are invited and should be forwarded to: Director, Strategic Studies Institute, U.S. Army War College, Carlisle Barracks, PA 17013-5050. Comments also may be conveyed to the Director of Research by calling commercial (717) 245-3234 or DSN 242-3234.

FOREWORD

The Gulf War demonstrated that theater missile defense (TMD) will be an important mission for the U.S. Army and its Patriot defense system in the years ahead. The author suggests that Army planners should view TMD not just as a simple tactical problem, but as an exercise that has important political and strategic ramifications that cut to the core of U.S. efforts to create and maintain international coalitions.

A factor that will shape the political and military effectiveness of TMD is the resolution of the strategic problem of integrating counterforce options, active defenses and passive defenses. He argues that instead of developing strategy on an ad hoc basis, the philosophy that influences the U.S. Navy's approach to anti-submarine warfare (ASW) might serve as a guide to counterforce operations against mobile missiles. Counterforce attacks would reduce the tactical problem faced by Patriot crews, improving the overall performance of TMD. He also notes that an ASW approach to counterforce should help the United States achieve its political objectives of alliance formation and deterrence in the face of regional aggression.

The Strategic Studies Institute is pleased to publish this monograph to foster debate on this important subject.

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SUMMARY

To maximize effectiveness, theater missile defense (TMD) should include counterforce options, active defenses and passive defenses. During the Gulf War, however, the integration of these three elements occurred on an ad hoc basis. To increase the political, strategic and tactical effectiveness of existing defensive systems in wartime, Army planners should integrate the three elements of TMD into an overall strategy.

This report describes how the philosophy that influenced anti-submarine warfare (ASW) operations can be used to guide counterforce attacks against mobile missiles, thereby improving theater missile defenses. It explains why an ASW approach to counterforce is superior to just attacking an opponent's missile infrastructure. It also explains why this type of counterforce strategy can be based on preemption not preventive war. The impact of ASW counterforce operations are also evaluated in terms of the stability-instability paradox, crisis stability, alliance relations and deterrence.

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Introduction.

As events during Operation DESERT STORM demonstrated, theater missile defense (TMD) will be increasingly important to the United States in the future. From a strictly operational perspective, U.S. forces stationed overseas would greatly benefit from a capability to defend themselves and their hosts against ballistic missiles, especially if an opponent's delivery systems are armed with weapons of mass destruction (WMD). But, from a political or strategic perspective, TMD could be the *sine qua non* of U.S. intervention in a regional conflict. If American forces lack a credible TMD capability, U.S. allies might come to believe that it is in their interest to reach an accommodation with aggressive regional powers; they could decide to bandwagon instead of balancing in the face of aggression.¹ Indeed, this is the primary concern that motivates U.S. counterproliferation efforts: by obtaining a WMD capability, a state contemplating even conventional aggression could reduce U.S. regional influence.² American policymakers might be willing to take the chance that a carrier battle group on the move cannot be targeted, but regional allies might not be willing to count solely on deterrence to protect stationary countervalue targets (population, resources or industry) from attack.

In a sense, TMD creates a sort of "chicken and egg" problem for strategists. On the one hand, allies are probably necessary for the construction of a credible theater missile defense, especially if their propinquity to the threat increases the usefulness of their territory in the construction of missile defenses. On the other hand, TMD strategies that require allied participation must find a way to secure this cooperation; they

must explain why the allies needed to stage an effective defense will be available at the proper time. TMD plans that simply assume allied cooperation in this most dangerous game are simply "preferred strategy." In this case, architects of U.S. TMD assume that allied powers will join U.S. initiatives despite the best efforts of potential opponents to prevent this cooperation. After all, this was an important lesson of the Gulf War: Saddam Hussein worked to destroy the political glue of the coalition arrayed against him by attempting to draw Israel into the fray.³ Policymakers should not assume that *overwhelming* U.S. military superiority will again rescue the United States from a politically difficult position.⁴ Clearly, there is a political foundation to TMD that must be created prior to the eruption of a regional crisis involving the potential use of theater missiles. To assume otherwise would only complicate a politically and militarily dangerous situation.

Another lesson from the Gulf War is that effective TMD requires both a counterforce capability and a counterforce strategy. Despite the availability of the Patriot missile system, U.S. planners seemed to give little thought to the mobile-missile threat before the Gulf War. This lack of attention could be explained by the fact that the SCUD threat itself does not fit easily into the notion of the ideal strategic air campaign.⁵ Most strategists would probably agree that hunting individual SCUD launch teams in the field is an inefficient use of scarce resources.⁶ Yet, as the war demonstrated, ignoring this problem in peacetime only increases the need for wartime innovation. Although they did not pose a significant military threat, SCUD attacks during the war posed an enormous political problem for the alliance. Despite the protests of planners, SCUD attacks ultimately forced the alliance to alter significantly the air campaign. Indeed, as General Merrill McPeak, Air Force Chief of Staff noted, "what surprised us was we put three times the effort that we thought we would on this job."⁷ Peacetime planners can concentrate on the rational application of air power; but, in wartime, political concerns will work to concentrate every available military asset to stop missile attacks against countervalue targets.

Seen from this perspective, the decision to deploy Patriot missiles represents more than a simple tactical counter to an opponent's theater missile capabilities. TMD deployment creates important political and strategic consequences which should be recognized by Army planners. Politically, the decision to place the Patriots on foreign soil cuts to the core of alliance formation, greatly influencing the likelihood that the United States will be able to create the political foundations for successful coalition warfare. In other words, political calculations, not tactical considerations, are likely to influence the decision to deploy Patriot. Strategically, Patriot will be part of a larger effort against an opponent's military capabilities that probably will include counterforce. Army planners should think about how Patriot will interact with U.S. counterforce options to achieve overall U.S. military objectives. And, from a strictly battlefield perspective, Army officers have an interest in making sure that counterforce options are available to reduce the tactical problems involved in TMD. Patriot will be far more effective if an opponent is incapable of barrage firing missiles. If Patriot is to succeed in battle, plans have to be formulated in advance to reduce the threat it faces to manageable levels. It makes no sense simply to concede opponents the advantage of launching coordinated attacks at times and places of their choosing.

Given the need for the United States to develop an effective TMD strategy to bolster allies in the face of regional aggression and to increase the effectiveness of existing defensive systems, the purpose of this monograph is twofold. First, the analysis will briefly describe an anti-submarine warfare (ASW) approach to the counterforce mission inherent in any realistic effort to defend U.S. allies and U.S. forces stationed overseas from attacks from mobile missiles. This approach offers a new philosophy about how to prosecute counterforce attacks against mobile missiles, a philosophy based upon the Navy's many years of experience hunting submarines operating at sea. Second, this monograph will explain how TMD, especially a defensive strategy that incorporates an ASW-based counterforce capability, can bolster America's political and military position by strengthening regional alliances. In other words, a counterforce strategy that reflects ASW procedures

is both politically and militarily superior to other counterforce strategies because it is based on preemption and not on preventive war or retaliation. An ASW-inspired counterforce strategy would serve to bolster deterrent and denial strategies that require allied participation; but, it probably would not further exacerbate potential regional confrontations that are by definition crisis unstable.

The analysis begins by describing the "ASW approach" to counterforce. It describes the five-step method the Navy devised to conduct undersea warfare and how this approach can be used to guide a counterforce campaign directed against mobile missiles. It then states why counterforce is crucial to any TMD strategy. It describes how counterforce--the need to base TMD on a strategy of preventive war or preemption--can complicate the use of TMD to strengthen regional alliances. The monograph also explains why a counterforce strategy governed by an ASW philosophy can overcome many of the problems inherent in engaging in TMD counterforce attacks. The analysis concludes by discussing how this proposed counterforce strategy can help achieve U.S. political and military objectives.

An ASW Approach to Counterforce.

The effort to target a weapons system that relies on mobility and stealth to avoid destruction is a problem that has long confronted the U.S. Navy. Submarines rely on their ability to move quietly throughout the world's oceans as a defense against attack. At first glance, it would seem far easier to find a needle in a hay stack than to find a submarine in the oceans' vast expanse. But, the U.S. Navy has developed a highly sophisticated ASW capability that literally can detect, track, target and destroy submarines as they operate in the open oceans. In theory, the same ASW philosophy used to organize and prosecute attacks against submarines should prove to be equally effective against mobile missiles that also rely on mobility and stealth for protection.

The U.S. Navy's ASW procedures are often divided into five categories: (1) the continuous collection and analysis of

intelligence on all known platforms; (2) continuous monitoring of all probable launch areas; (3) generation of cueing (warning) when specific platforms move to a launch status; (4) the localization of specific systems; and (5) attack. Organized sequentially, each of these categories represents a stage in the ASW search and attack effort. As one moves from stage one to stage five not only does the area searched become increasingly restricted, but the time available to complete the task at hand becomes increasingly limited. These five stages should be replicated in the effort to destroy mobile missiles; they can form the core elements of an ASW approach to counterforce strikes against theater ballistic missiles.

A great deal of information, critical to the entire counterforce effort, can be gained through sustained collection and analysis of data about all known mobile missiles, the first stage of the ASW process. In tracking submarines, the opponent's entire inventory is followed by hull number; similar efforts would have to be made to track individual missile Transporter-Erector-Launchers (TELs). Missile production, storage and repair centers would have to be continuously monitored to generate this fundamental order-of-battle intelligence. This should yield information about the overall size, day-to-day readiness, and surge (alert-generation) capability of the opponent's systems. Training cycles, exercises, support vehicle activity, base egress and ingress and movement through "choke points" (well-maintained roads, heavy duty bridges, rail heads) would also be continuously monitored. Not only would these efforts yield a useful estimate of the general location of the opponent's mobile missiles, but it would also create a baseline to assess deviation in the opponent's standard operating procedures. In effect, stage one creates an indications and warning baseline, a critical component of the overall military and political success of counterforce TMD strategies.

Surveillance of all probable launch areas, the second step in the ASW process, depends upon intelligence initially gathered about the opponent's overall missile capability: indications of when and where to look for mobile missiles are produced in stage one analyses. In stage two operations,

visual signatures of areas of interest would be compared on a regular basis to look for changes (damage to plants, tire tracks or the presence of the weapons systems themselves). Similarly, acoustic, seismic, radar and communication signatures could be used to develop records that could be compared over time. Of special importance would be "life-support events," the logistical tail that might lead directly to a TEL in the field or evidence of human activity as the TEL crew goes about its daily business. Special attention would be paid to the most likely operating areas and negative search information (indications that terrain features make certain areas unsuitable for SCUD operations) would be used to develop an operating history of the opponent's TELs. Armed with this information, real-time "tracks" of fielded TELs could be monitored as long as possible; thus, a working knowledge of the location of all TELs in or near launch areas could be maintained.

Cueing, the third step in the ASW process, is characterized by intensive efforts to develop a more accurate and detailed track of a specific weapons system. It typically results when a TEL is detected in a launch area or when changes in activities or activity levels indicate that preparations are underway for an actual missile launch. This intelligence could come from a variety of sources. Stage one analyses might yield indications of changes in activity patterns or the general location of a specific system. Stage two surveillance efforts might also detect communication, acoustic or radiation signatures as TELs are made ready to fire. Cueing, however, is best viewed as a transitional step in counterforce efforts against mobile missiles: it is related to a decision by either U.S. authorities or the opponent to begin to move to a war footing. Cueing is intended to establish a detailed track of a potential target, information that would allow for the quick prosecution of an attack.

The decision to engage in the localization (identification of the target's precise location) of cued TELs, the fourth stage of the counterforce operation, will likely be made by the National Command Authority. Although search activities related to cueing might require overflights of an opponent's territory,

localization will require armed aircraft or unmanned airborne vehicles to enter an opponent's airspace, an act of war. Platforms working to localize an opponent's TELs should themselves be armed with defense suppression weapons. Localization begins from a starting point identified by intelligence collected and analyzed from the proceeding three stages of the ASW process; because of the short ranges involved, a wide variety of sensors can then be used to generate timely and detailed tracks of the target. Obviously, coordination of the platforms involved and fusion (receiving, analyzing and displaying) of the data produced by a variety of sensors would facilitate localization.

Over the years, the Navy also has discovered that practice is the critical element in the success of localization efforts. The Navy was fortunate, however, in the sense that the Soviets had for years provided opportunities to localize real targets on the open ocean. In other words, officers and policymakers cannot expect that the skills, experience, hardware and communication architectures (fusion) necessary to localize a target can be improvised at a moment's notice.⁸

The final step in the ASW process is to attack the target. Ideally, the attacking weapons system would have its own localization sensor. The Navy never carried out this final step during the Cold War, but exercises revealed that coordination and practice did increase the likelihood of successful attacks. It would also be important during an attack to verify somehow that the opponent's weapons system had been destroyed: crippled systems could be repaired and fired at a later date. Counterforce places a premium on the availability of small ground units that can be inserted quickly behind enemy lines to guarantee that TELs and missile storage and servicing sites have been destroyed.

In sum, several aspects of an ASW approach to counterforce make it attractive as a framework for the destruction of TELs before missile launch. An ASW approach calls for continuous monitoring of the status and activities of an opponent's military forces. This would not only build order-of-battle and infrastructure intelligence, but it would also provide a basis for indications and warning estimates. An ASW

approach also increases the defensive problem confronted by the opponent. Instead of counting on the ability to "shoot and scoot," opponents would have to base their operations on the assumption that their forces are being continuously hunted. In a situation when every stray electronic, seismic or acoustic emission might be used to attack a TEL, missile crews might become preoccupied with the defensive task of protecting their missiles. It might become impossible for them to fire with the "hunters" on their trail. Moreover, because it does not rely on "flaming datum," an actual missile firing, to locate an opponent's weapon, an ASW inspired strategy probably is the most effective approach to counterforce. It is the only strategy that suggests that it is possible to locate and to destroy missiles after they have moved to the field but before they can be fired.

Still, one facet of the ASW approach makes it especially attractive as an organizing framework for the counterforce mission: an ASW approach to counterforce allows for the possibility of preemption. In other words, the decision to begin the final stages of the counterforce mission--localization and attack--can be made after strategic warning has been received. Because monitoring is continuous, the decision to destroy an opponent's weapons can be based on indications that the opponent is preparing its mobile missile systems for launch. As the following sections explain, this single characteristic of the ASW approach to TMD increases its political attractiveness as the basis of a counterforce strategy. Policymakers can wait very late in the game, in fact, even after the initiation of conventional hostilities, before acting to destroy an opponent's capability to use mobile missiles to launch weapons of mass destruction.

Theater Missile Defense: A Simple Formula.

As one long-time student of strategy was fond of noting, there is no secret to damage limitation. Three capabilities are required. First, a good counterforce capability must be available to destroy weapons on the ground before they can be launched against U.S. allies or U.S. forces stationed overseas. Second, active defenses must be used to engage the forces that survive initial counterforce attacks. Third, passive defenses, programs to reduce the vulnerability of likely

targets to the effects of the opponent's weapons, must be available.⁹ Technological, organizational and strategic shortcomings or even the opponent's own defensive efforts can limit the effectiveness of damage limitation strategies.¹⁰ But, when combined, these three capabilities can create a denial strategy, a plan to prevent the opponent from obtaining his objectives.

Counterforce strategies--efforts to destroy delivery systems, missile transporter-erector-launchers (TELs), storage and maintenance facilities and operating bases--contribute enormously to the overall effectiveness of theater missile defenses. Compared to the active and passive defensive missions embodied in TMD, counterforce strikes are particularly efficient. In other words, counterforce attacks make it possible to destroy groups of weapons and delivery systems with individual weapons; conversely, active defenses generally require the expenditure of several weapons to stop or destroy individual warheads.

Two reasons can be offered for the relative effectiveness of counterforce. First, it is often easier to locate and attack a weapon before it is put into operation or is actually fired; and, as just noted, counterforce is efficient at the margins. Compared to active defense, counterforce strikes pose a relatively modest technological targeting problem. Not only are the targets often stationary, but their whereabouts can usually be determined in advance. In other words, it is easier to target operating and storage facilities than it is to destroy missile warheads traveling toward a target at thousands of miles per hour. Because they are relatively large and may be located prior to hostilities, fixed targets are more easily destroyed than individual weapons on the move. Of course, surprise is probably necessary to gain all of the advantages inherent in counterforce attacks. It is likely that competent opponents faced with a brewing crisis would use dispersal, active defenses or even the shield provided by moving weapons into civilian population centers to protect critical systems from attack.¹¹

Counterforce attacks can be more efficient than active defenses because they hold out the prospect of destroying dozens of delivery systems or warheads with relatively few

weapons: weapons expenditure rates favor counterforce in most circumstances. For instance, it is easier to destroy ten warheads sitting on a missile in its silo than to destroy individually ten warheads as they speed toward their targets. Indeed, as one follows a weapons system's infrastructure from individual warhead to production facilities, counterforce's "efficiency at the margins," becomes readily apparent. As the Air Staff has noted: "[the] earliest response offers greatest leverage at [the] lowest cost."¹² By attacking a TEL and its missile reloads, one could destroy 40 warheads (4 missiles carrying 10 warheads) with as little as one weapon. Similarly, it might be possible to destroy dozens of missiles by attacking assembly-fueling-mating facilities or to destroy hundreds of delivery vehicles by attacking storage facilities. By holding out the prospect of destroying dozens, if not hundreds, of individual weapons simultaneously, counterforce is the most efficient component of a theater missile defense effort.

One factor, however, can limit the overall effectiveness of counterforce strategies. To be successful, counterforce requires a state to take the initiative; generally speaking, the earlier in a conflict the decision is made to exercise the counterforce option the greater its potential impact. Counterforce strategies face diminishing returns as a war progresses. For example, an opponent's forces can be dispersed, making them more difficult to locate and destroy. Weapons can also be placed on alert; given tactical warning, many can be used rather than face destruction on the ground. Of course, some benefits can always be obtained by destroying empty garrisons or a nation's general military and industrial infrastructure, but once an opponent's forces move to a war footing, counterforce strikes will produce diminishing returns. To insure the greatest effectiveness, TMD requires the initiation of counterforce strikes as early as possible in a developing conflict. Clearly, the requirement to initiate counterforce attacks before opponents launch their weapons could undermine both deterrence and crisis stability, but it is possible to mitigate the more provocative elements of TMD.

If policymakers consider realistically the fundamental limitation of counterforce strategies--the need to fire first--they

are really left with two options: a state can initiate hostilities either by launching preventive or preemptive attacks. The decision to launch a preventive war often rests on the calculation that war is inevitable, and that conditions will never be more favorable for the initiation of hostilities. In a sense, leaders who adopt the logic of preventive war accept risk; they are willing to jump through "windows of opportunity."¹³ They tend to believe that since they must fight an opponent sooner or later, they may as well fight now before changes in the military, diplomatic, domestic-political or economic balance decrease the chances for success on the battlefield. Although the eruption of World War I and even Hitler's declaration of war on the United States have been identified as cases of preventive war, the best example of the phenomenon probably is the Japanese decision to attack Pearl Harbor.¹⁴

By contrast, preemption occurs following indications that the opponent is about to attack. A preemptive strategy implies that a state is not willing to allow its opponent to inflict the first blow; upon receipt of strategic warning, the goal is simply to beat the opponent to the punch. Although preemption lacks the onerous political and moral connotations that are inherent in plans for preventive war, it still is a demanding military mission. According to Lawrence Freedman, "the technical requirements [of preemptive war] would be exacting: a reliable intelligence system, to insure adequate warning of attack, and an ability, including a capacity for quick movement, to abort this attack."¹⁵ A preemptive attack would be prompted not by the normal day-to-day operating procedures followed by an opponent, but by clear indications that the opponent's forces are either being placed on generated alert or are actually being readied for firing. Some analysts believe that both Soviet and American officers and policymakers were mesmerized by the effort to avoid falling victim to the other's preemptive nuclear attack, leading both Superpowers to create nuclear employment doctrine and command and control infrastructures that were inherently crisis unstable.¹⁶ But, the best recent example of a preemptive attack was the 1967 Israeli strike against both Egypt and Syria after Israeli military and political leaders became convinced that the Arabs were about to initiate hostilities.¹⁷

In sum, TMD would greatly benefit from the integration of counterforce strikes into an overall strategy to defend against missile attack. To be most effective, however, a state contemplating counterforce attacks must be willing to initiate hostilities. Moral, political and practical considerations, however, argue against the adoption of a preventive war strategy. Put succinctly, as a democracy, the United States cannot adopt a strategy of preventive war, even though the strategy has been considered in times of perceived great peril.¹⁸ Preemption is demanding, but it is the only real form that U.S. counterforce attacks can take. Indeed, those who advocate a preventive war strategy for the United States must first explain why American political leaders will behave differently in the future.

TMD and Regional Alliances.

Given the nature of potential conflicts, one could add a fourth element to a new U.S. TMD strategy: strong alliances, or at least extremely cooperative working relationships with new-found friends. Counterforce strikes would be facilitated by access to bases close to an aggressive state. Similarly, active defenses, especially point defenses, might be impossible to construct without access to territory near or around likely targets. The very existence of alliances themselves also strengthens the credibility of U.S. deterrent threats: alliances provide tangible evidence of a U.S. commitment to defend a state or a region against aggression. But the role played by strong alliances in a successful TMD strategy does not mean that they will exist when the time comes. The cooperation and protection of allies is both a means and an end of U.S. strategy. In other words, allies might be necessary for the construction of TMD, but the availability of an effective TMD might also be a necessary condition for the creation of a strong regional alliance to resist an aggressive state.

Because U.S. TMD strategy is linked to regional alliances, planners must take into account the political and military motivations of potential U.S. allies. For most regional actors, the overriding goal of their foreign and defense policies will be to avoid an opponent's missile attacks. Fundamentally, they

have two options to achieve this objective: (1) they can enter into an alliance (balance) with the United States to prevent the attack either through a denial strategy based on TMD or a deterrence strategy based on retaliation; or (2) they can reach some political accommodation (bandwagon) with the threatening state to avoid attack. The challenge for U.S. planners is to devise a TMD strategy that increases the likelihood that potential allies will balance instead of bandwagon. Without this kind of strategy, the proliferation of WMD could reduce U.S. regional influence: potentially friendly states might become unwilling to support U.S. policies generally or to assist U.S. efforts to stop aggressive states.

A TMD strategy based on the notion of preventive war is unlikely to deter bandwagoning behavior for several reasons. Given the goal of avoiding missile attacks, preventive war could be viewed as a way to bring about undesired conflict. All things being equal, regional actors will probably be willing to desist in the hope that continued diplomatic efforts or unanticipated developments will remove a nascent threat. Almost by definition, the real prospect of preventive war will appear far more harrowing and undesirable than the seemingly remote possibility of missile attacks. A preventive war strategy simply offers to fight more efficiently a war that regional elites wish to avoid in the first place. As a result, it is unlikely to elicit a positive response from friendly regimes.

A strategy of preemption, however, is more likely to serve as a rallying point for regional actors. Democratic allies would be attracted to the prospect of avoiding hostilities until the last possible moment by simply planning on beating the opponent to the punch. In contrast to a preventive war strategy, preemption offers the hope of winning or, at a minimum, greatly reducing the consequences of a war that is already unfolding. A preemptive strategy delays the onset of war until an opponent begins to undertake activities identified as evidence of immediate preparations for an actual attack. Diplomatic initiatives intended to prevent war can thus be allowed to run their course. Obviously, this would help the formation of a coalition of democratic states; the case for engaging in hostilities would develop naturally as diplomatic efforts

repeatedly fail to generate a positive response from the opponent.¹⁹

Most importantly, if a U.S.-led coalition adopted a preemptive TMD strategy, it still might not have to initiate hostilities. The first shot in a war does not necessarily have to be fired by the United States in a TMD counterforce attack. Counterforce strikes against an opponent's missile infrastructure and launch facilities could be withheld until indications were received that the opponent was making actual preparations to fire. Indeed, a finely tuned preemptive strategy would give the United States and its allies an enormous advantage. For example, everything from border skirmishes to large-scale conventional war could take place without placing irresistible pressure on the United States to escalate the conflict vertically by attacking the opponent's missile systems and infrastructure. Even after hostilities had erupted, counterforce attacks could await clear indications that the opponent was preparing missile systems for immediate firing. In effect, if U.S. policymakers believe that the United States and its allies must obtain the political benefits that accrue to clear-cut victims of aggression, then TMD counterforce attacks would have to be based on preemptive strategy that employs ASW techniques.

Similarly, TMD counterforce could also prevent the opponent from benefiting from the stability-instability paradox.²⁰ An opponent might believe that the threat of missile attack, especially if these missiles were armed with weapons of mass destruction, could reduce the U.S. presence in a region or prevent a vigorous U.S. or allied response to hostilities. An opponent could be counting on the stability produced by the possibility of missile attacks to pave the way for conventional aggression (instability). Indeed, this is one way a state contemplating aggression could attempt to take advantage of either the honest efforts of most states to avoid war, or the tendency of small states to bandwagon in the face of particularly dangerous threats. The leadership of an aggressive state would hope that the threat of missile attack would facilitate conquest, not only without interference from extra-regional actors, but maybe without any bloodshed at all.²¹

An ASW-inspired TMD defense, however, could help reduce some of the more dangerous aspects of the stability-instability paradox. Threatened states in a region could take measures to improve their defenses, despite threats of missile attack, because the option of TMD would be available. And since a TMD based on an ASW philosophy does not require a preventive war strategy, regional allies or new-found friends would not have to view a decision to strengthen their defenses as a decision for war. This is the most vicious aspect of the stability-instability paradox: leaders contemplating aggression will hope that their intended victim will come to believe that any sort of decision to resist aggression actually increases the likelihood of bringing about the undesired outcome, war. A counterforce strategy based on ASW techniques, however, separates the decision to create a defense from the decision to engage in war. The notion that the decision to construct a defense is not a prelude to war will increase the likelihood that policymakers will work to deploy theater defenses before a nascent crisis.

Even a preemptive strategy based on an ASW philosophy, however, can never completely eliminate fears of "miscalculated escalation," fears that lie at the heart of the stability-instability paradox. In other words, U.S. and allied policymakers will always fear that actions taken to increase their defensive capabilities might be seen by their opponents as a sign of impending attack, leading the other side to preempt in a crisis that otherwise might be solved peacefully.²² Indeed, the fear of miscalculated escalation is what distinguished risk-averse policymakers, who hope to avoid war, from risk-acceptant leaders, who are willing to generate "a few casualties" to achieve their objectives. Ultimately, the decision to risk war by increasing one's defenses is a political issue that lies beyond the reach of strategy.

Still, one could argue that regardless of what philosophy influences a TMD counterforce architecture, denial strategies are inherently crisis unstable. Opponents will not stand idly by and allow the United States to build an effective TMD that eliminates their capability to launch either conventional or WMD warheads against their opponents. In other words, a

denial strategy creates more than just a "use it or lose it situation" for an opponent; it could also indicate to targeted states that the United States and its allies are contemplating aggression or preventive war. Under these circumstances, TMD counterforce will simply accelerate and intensify the security dilemma (military actions taken for even defensive purposes tend to decrease the security of others), leading to a further deterioration in regional politics or even war.²³ Alternatively, a denial strategy could make it clear to leaders contemplating aggression that the costs of war could not be avoided and that they alone will not dictate the tempo of escalation or the scope of the conflict; these kinds of perceptions tend to strengthen deterrence.²⁴

It is unlikely, however, that an ASW-inspired counterforce strategy will have much impact on crisis stability in the most probable regional contingencies because the nuclear and conventional military balance in these regions is extremely crisis unstable. Although American policymakers do not dwell on the fact, the United States already possesses a splendid nuclear first-strike capability against regional mobile missile threats. It might be apparent to Americans that it is unlikely in the extreme that the United States would initiate nuclear hostilities, but regional opponents must plan to meet U.S. capabilities, not U.S. intentions. Until regional actors obtain a significant secure second-strike WMD capability against the United States, the nuclear and conventional military balance, in a strict "technical" sense, will remain crisis unstable, regardless of the refinements the United States makes to counterforce strategies. And, in the political sense of the term, underlying hostility, alternate views of history, and competing political agendas will only serve to fuel regional competition. Clearly, the states involved believe that war is a real possibility; this perception alone greatly contributes to crisis instability.²⁵

Conclusion: TMD Counterforce and Alliances.

A preemptive counterforce strategy that is influenced by an ASW philosophy offers important advantages over other approaches to the counterforce mission that must be a part of any realistic theater missile defense plan. An ASW approach

to counterforce makes a preemptive strategy possible. A preemptive strategy, in turn, makes it more likely that U.S. efforts to defend against regional missile attacks will generate regional support. Instead of reducing U.S. influence in a region, theater missile defenses based on an ASW philosophy are more likely to be supported by allies. The preemptive strategy outlined in this monograph can increase the probability that the political prerequisites of military success will be in place when the United States confronts aggressive states armed with ballistic missiles. In other words, a counterforce strategy based on ASW principles can increase the probability that regional actors will balance with the United States against aggressive states. An ASW approach to counterforce could strengthen deterrence by helping to create the alliances needed to demonstrate an American commitment to resist aggression.

To guarantee both the political (bolster U.S. regional influence and allies) and military (destroy missiles before they are launched) success of an ASW counterforce strategy, however, three processes have to be set in motion well before the onset of hostilities. First, weapons systems and intelligence collection facilities must be either created or modified to meet the requirements posed by the ASW counterforce mission. Second, discussions must take place with potential allies about the theater missile defenses as soon as possible. Not only would this be taken as a sign of U.S. support, helping to achieve the political goal of boosting U.S. influence in a region threatened by missile attack, but it would also serve as the basis for future military cooperation. Clearly, key issues related to intelligence collaboration, and the sharing of military facilities, would have to be solved before a simmering conflict becomes a crisis. But, most importantly, political and military judgments will have to be made in advance about what constitutes strategic and tactical warning of impending missile attack. Sorting out these issues during a crisis is likely to produce paralysis as allied policymakers and officers come to terms with the demands of a preemptive strategy. During the Cold War, for example, analysts called attention to the political problems the North Atlantic Treaty Organization (NATO) would face in responding to indications of impending attack.²⁶ Analysts noted that fears of miscalculated escalation,

defections from the Alliance, or just political indecision could impede NATO's response to Soviet mobilization. If one considers that NATO's membership had years to contemplate how and when to generate its defenses upon receipt of indications and warning of attack, the severity of the problem facing a nascent alliance that has adopted a preemptive strategy is clear. Extensive consultations about when and how to respond to an opponent's generation of its mobile missiles must take place before the onset of a crisis; consultations represent a necessary condition for the success of any counterforce strategy based on preemption.

Since much of the political benefit of an ASW inspired counterforce strategy is based on its requirement of sustained and intensive political and military interaction with potential allies, the need for these kinds of consultations should be viewed as a positive development. Even though unilateral action might offer a simpler way of dealing with nascent missile threats, a multilateral response, by definition, would probably be more politically productive from the American perspective. And, since a multilateral response is likely to serve as a strong political signal of a coalition's willingness to resist attack, political, military and intelligence consultations on the issue of missile defense might serve to deter states contemplating aggression.

Third, from a strictly practical standpoint ASW counterforce operations cannot be improvised at the last minute. If the Navy's experience is any guide to this type of operation, then the hunt for mobile missiles will succeed only after much practice.²⁷ Indeed, over the years, the Navy discovered that ASW operations required that a community of officers dedicate major portions of their careers to this specialized form of warfare. In a time of shrinking resources, however, the challenge would be to develop an interservice community dedicated to the task of destroying mobile missiles on the ground. Indeed, each of the services has something to contribute to an ASW counterforce effort. Not only would a massive amount of air power be required to complete these attacks successfully, but ground forces could also participate

in reconnaissance missions, especially by guaranteeing that missiles once localized and attacked were actually destroyed.

The U.S. Army already is prepared for two missions in an ASW-inspired TMD architecture: conducting active defenses against incoming weapons and launching ground operations behind enemy lines to insure that sites targeted from the air have been destroyed. But no service has offered to coordinate both the counterforce and active defenses that constitute effective TMD. Army planners, however, are logical candidates to specify the counterforce requirements to insure the effectiveness of Patriot. Reducing the number of incoming warheads to levels below the number of available interceptor missiles or preventing barrage attacks are reasonable requirements set by peacetime planners for counterforce options.

Ultimately, technology might improve the effectiveness of counterforce attacks, but it is impossible to predict when, during a period of decreasing defense budgets, this new technology will become available. Still, an ASW approach to organizing a counterforce attack offers a cheap, and politically and militarily effective way of destroying mobile missiles. The solution to the SCUD problem, a solution likely to meet with the approval of America's allies, is available today. Senior political and military officials simply need to recognize the potential inherent in an ASW approach to counterforce to make this capability a reality for the United States, its allies, and U.S. forces operating overseas.

ENDNOTES

1. In the literature on international relations, balancing refers to the tendency of states to form alliances to defend themselves against aggressive states. Bandwagoning is the tendency to join with aggressive states in an effort to avoid their depredations. For a discussion of these concepts see Stephen M. Walt, *The Origins of Alliances*, Ithaca, NY: Cornell University Press, 1987; and Randall Schweller, "Bandwagoning for Profit: Bringing the Revisionist State Back In," *International Security*, Vol. 19, No. 1, Summer 1994, pp. 72-107.

2. AF/XOXI Briefing Slides, "Countering Weapons of Mass Destruction Proliferation: Developing the Tools," delivered September 15, 1993, USAF Academy, Colorado Springs, CO.

3. On this point see James J. Wirtz, "Miscalculation, Surprise and American Intelligence After the Cold War," *International Journal of Intelligence and Counterintelligence*, Vol. 5, No. 1, Spring 1991, pp. 10-11.

4. Lawrence Freedman and Efraim Karsh note, for instance, that because the United States was at the head of a "disparate coalition" during the Gulf War, it was on the political defensive; only an extraordinarily successful military campaign prevented political weakness from interfering with the liberation of Kuwait. See Lawrence Freedman and Efraim Karsh, "How Kuwait Was Won: Strategy in the Gulf War," *International Security*, Vol. 16, No. 2, Fall 1993, p. 41.

5. For a fine discussion of air doctrine see Michael E. Brown, *Flying Blind: The Politics of the U.S. Strategic Bomber Program*, Ithaca, NY: Cornell University Press, 1992, pp. 29-67.

6. David E. Snodgrass provides a succinct description of how campaign planners misapplied doctrine when confronted with a difficult Scud problem: "US War planners were aware that Scud attacks, particularly on Iranian cities, had a significant impact on the outcome of the Iran-Iraq War. However, General Schwarzkopf viewed the Scud simply as a terror weapon. He did not consider the Scud as militarily effective because it had a small warhead with inaccurate guidance. Before Desert Storm, officers at the Air Staff discussed the mobile missile problem with SAC [Strategic Air Command] and learned of the difficulty in trying to find individual launchers once they deployed to the field. Air Staff officers therefore formulated a general attack plan to disrupt Saddam Hussein's command and control system rather than attack the separate launchers By interrupting Saddam's operational and strategic scheme, US planners hoped to prevent the Iraqis from using their Scuds at all." See David E. Snodgrass, "Attacking the Theater Mobile Ballistic Missile Threat," MA Thesis, Maxwell Air Force Base, AL, June 1993, p. 3.

7. McPeak quoted in Snodgrass, "Attacking the Theater Mobile Ballistic Missile Threat," p. 3.

8. As Stephen Rosen has recently noted, many successful wartime innovations, for instance, carrier aviation and the development of a U.S. Marine Corps amphibious capability, experienced a long peacetime gestation. Paradoxically, effective wartime innovation is facilitated by prior planning. See Stephen Rosen, *Winning the Next War: Innovation and the Modern Military*, Ithaca: Cornell University Press, 1991, pp. 76-85.

9. Warner R. Schilling, "U.S. Strategic Nuclear Concepts in the 1970s: The Search for Sufficiently Equivalent Countervailing Parity," *International Security*, Vol. 6, No. 2, Fall 1981.

10. Robin Ranger, "Theater Missile Defenses: Lessons from British Experiences with Air and Missile Defenses," *Comparative Strategy*, Vol. 12, No. 4, October-December 1993, pp., 399-413.

11. Of course, officers have been known to take the wrong steps when facing a nascent threat. For example, General Short's decision to respond to warnings of potential hostilities with Japan by increasing defenses against sabotage actually increased the effectiveness of Japanese attacks on Oahu's airfields. See Eliot Cohen and John Gooch, *Military Misfortunes: The Anatomy of Failure in War*, New York: The Free Press, 1990, pp. 49-50.

12. "Countering Weapons of Mass Destruction Proliferation: Developing the Tools."

13. On "windows of opportunity," see Richard Ned Lebow, "Windows of Opportunity: Do States Jump Through Them?" *International Security*, Vol. 9, No. 1, Summer 1984, pp. 147-186. For a fine discussion of the concept of preventive war, see Jack Levy, "Declining Power and the Preventive Motivation for War," *World Politics*, Vol. XL, No. 1, October 1987, pp. 82-107.

14. Jack Snyder, for example, describes how European Great Powers and their military establishments on the eve of World War I misperceived a situation of defensive dominance and adopted offensive doctrines which approximated preventive war strategies. See Jack Snyder, *The Ideology of the Offensive: Military Decision Making and the Disaster of 1914*, Ithaca, NY: Cornell University Press, 1984. For a discussion of Hitler's decision for war against the United States, see Randall L. Schweller, "Tripolarity and the Second World War," *International Studies Quarterly*, Vol. 37, No. 1, March 1993, pp. 73-103. On Japan's decision to launch a preventive war against the United States, see Roberta Wohlstetter, *Pearl Harbor: Warning and Decision*, Stanford: Stanford University Press, 1962, pp. 339-357.

15. Lawrence Freedman, *The Evolution of Nuclear Strategy*, New York: St. Martin's, 1983, pp. 126-127.

16. Bruce Blair, *The Logic of Accidental Nuclear War*, Washington, DC: The Brookings Institution, 1993.

17. Michael Howard and Robert Hunter, "The Six Day War," and Michael I. Handel, "The Development of the Israeli Political-Military Doctrine," both contained in Frank Horton, Anthony Rogerson and Edward Warner, eds., *Comparative Defense Policy*, Baltimore: The Johns Hopkins University Press, 1974.

18. As Bernard Brodie wrote in the late 1950s, "Preventative war seems today no longer a live issue, though it was that only a few years ago among a small but important minority of American citizens. The pressure in favor of it diminished as the Soviets developed a nuclear capability, and especially as Americans became acclimated to living with those nuclear bombs that had provoked the idea in the first place." Bernard Brodie, *Strategy in the Missile Age*, Princeton: Princeton University Press, 1959, pp. 227-228. On the issue of preventative war in U.S. strategy, see Marc Trachtenberg, *History and Strategy*, Princeton: Princeton University Press, 1991, pp. 21, 103-107; David Rosenberg, "The Origins of Overkill: Nuclear Weapons and American Strategy, 1945-1960," *International Security*, Vol. 7, No. 4, Spring 1983, p. 33; and, Richard K. Betts, *Nuclear Blackmail and Nuclear Balance*, Washington, DC: The Brookings Institution, 1987, pp. 161-164.

19. Clearly, the scenario described here mirrors the U.S. experience in the Gulf War: the Bush administration engaged in a sustained diplomatic effort to end the Iraqi occupation of Kuwait peacefully. See Freedman and Karsh, "How Kuwait Was Won," pp. 38-39.

20. On the stability-instability paradox, see Glenn Snyder, "The Balance of Power and the Balance of Terror," in Paul Seabury, ed., *The Balance of Power*, San Francisco: Chandler, 1965, pp. 194-201.

21. It would be extraordinarily unwise to dismiss the possibility that a gifted leader could manipulate the threat of force to intimidate small states without provoking great power intervention or even hostilities. After all, Hitler, apparently following this strategy, did well enough until his last bloodless victory, the occupation of the Lithuanian district of Memel on March 23, 1939. See A.J.P. Taylor, *The Origins of the Second World War*, New York: Atheneum, 1984, pp. 131-132; and William L. Shirer, *The Rise and Fall of the Third Reich*, New York: Simon & Schuster, 1960, pp. 461-462.

22. Richard Ned Lebow, "Miscalculation in the South Atlantic: The Origins of the Falklands War," in Robert Jervis, Richard Ned Lebow, and Janice Gross Stein, eds., *Psychology and Deterrence*, Baltimore: Johns Hopkins University Press, 1985, p. 102.

23. On the security dilemma, see John Herz, "Idealist Internationalism and the Security Dilemma," *World Politics*, Vol. 2, No. 2, January 1950, pp. 157-180; and Robert Jervis, "Cooperation Under the Security Dilemma," *World Politics*, Vol. 30, No. 2, January 1978, pp. 186-214.

24. John Mearsheimer, *Conventional Deterrence*, Ithaca, NY: Cornell University Press, 1983; and, James J. Wirtz, "Strategic Conventional Deterrence: Lessons from the Maritime Strategy," *Security Studies*, Vol. 3, No. 1, Autumn 1993, p. 121.

25. Purely "technical" assessments of the military balance or imbalance between states are not sufficient to produce instability in strategic relationships. The United States possess a splendid first-strike capability against most nations, yet people do not lay awake at night worrying, for example, about what this implies about the future of U.S.-Canadian relations. For an elaboration of this logic see Colin Gray, *Weapons Don't Make War*, Lawrence, KS: University of Kansas Press, 1993.

26. Richard Betts, *Surprise Attack: Lessons for Defense Planning*, Washington, DC: The Brookings Institution, 1982.

27. According to Cohen and Gooch, the Navy learned this lesson the hard way during a highly successful U-boat campaign in 1942. See Cohen and Gooch, *Military Misfortunes*, pp. 59-94.

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