

The rise of theater ballistic missile capabilities in East Asia—particularly in China and North Korea—has raised fears among the United States, South Korea, Japan, and Taiwan that the post-Cold War era may be one of heightened vulnerability. As Director of the U.S. Department of Defense's Ballistic Missile Defense Organization (BMDO) Lt. Gen. Lester Lyles has testified: "...the threat from foreign theater missiles has grown steadily as sophisticated missile technology becomes available on a wider scale."² North Korea's *Nodong* series has been the most-cited threat, but the spring 1996 Taiwan Straits crisis—where China brazenly tested short-range *Dong Feng* (East Wind)-15 ballistic missiles in the seas around its island neighbor—has also raised the specter of possible Chinese use of offensive missiles.

In response to the perceived vulnerability of both U.S. forces and the territories of U.S. allies and friends in the region, the dominant trend in both Western media analysis and in U.S. policymaking circles has been to view the deployment of theater missile defenses (TMD) as the best available means of combating this regional missile threat. Indeed, a flurry of media reports has spoken of the "immediate need" for the United States to implement missile defenses in the region in order to stave off what one leading publication has called "the Red missile threat."³ While not all analysts have backed this solution, and not all supporters of TMD responses have argued for their deployment without consideration of possible political repercussions, the lack of serious debate in U.S. policymaking circles over options to East Asian TMD deployments suggests a troubling failure to consider alternative approaches. This is of particular concern because the existing policy has at times strained U.S. relations with its allies in East Asia, thereby threatening to create new problems.

Current efforts by TMD supporters (especially in the U.S. Congress and industry) to seek near-term deployment of missile defenses raise two questions that merit further scrutiny: 1) whether existing TMD technologies are likely to work; and 2) whether unilateral TMD de-

ployments by the United States and its allies might call out a regional military response that makes the situation ultimately *worse* for U.S. security interests. Some possible reactions include: Chinese or North Korean deployment of larger numbers of short-range systems; Chinese deployment of multiple reentry vehicles (MRVs) or multiple independently targetable reentry vehicles (MIRVs)⁴;

the strengthening of North Korea's resolve to test and deploy new, longer-range systems; the development of domestic TMD systems; the purchase of off-the-shelf TMD systems from Russia; or the development of counter-measures.

In an effort to prevent these possible eventualities, this essay reconsiders the East Asian missile threat, the effectiveness of existing TMD options, and the regional political setting surrounding the TMD debate (especially among U.S. allies in the region). The view presented here accepts the seriousness of the potential Chinese and North Korean threats, but it argues that the real challenge for East Asian security is not primarily the military question of how to defend against the missiles, but instead the long-term political question of how to craft policies that will make states in the region less likely to *use* them in the first place.

In this light, the essay proposes a series of mutually reinforcing arms control measures aimed at engaging China and North Korea on missile proliferation, which, if successful, would avoid the need for U.S. TMD deployments. Such a strategy would still preserve the option of future TMD deployments, if the negotiations failed, but would offer the significant political benefit of trying a cooperative approach first, thus putting the onus on the proliferators for any subsequent action-reaction spiral. Such a policy is also likely to elicit greater support from U.S. allies in the region, which (as will be discussed be-

**VIEWPOINT:
MISSILE PROLIFERATION IN
EAST ASIA: ARMS CONTROL
VS. TMD RESPONSES**

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low) have had ambivalent reactions to U.S. efforts to convince them to purchase U.S. TMD systems and to sign on to costly, long-term research programs.

SURVEYING THE EAST ASIAN MISSILE THREAT

Although rarely discussed in these terms, two contradictory trends characterize the missile proliferation environment in East Asia today: one largely positive, the other largely negative.⁵ The first is the *decline* of the most serious East Asian missile threat—former Soviet and present-day Russian missiles. The withdrawal and destruction of the 180 Soviet SS-20s in the region (according to the Intermediate Nuclear Forces Treaty), the removal of 257 medium- and short-range Soviet nuclear missiles from Siberia, the Russian Far East, and Mongolia, and the drawing down of Russia's submarine-launched ballistic missiles (SLBMs) have drastically reduced the number of weapons aimed at U.S. forward-deployed forces and at the continental United States.⁶ Moreover, changes in Russian politics suggest that Moscow has no intention of using its current missile forces against the United States.

Nevertheless—in *objective* terms—it is worth noting that the 1,259 Russian nuclear warheads still based in the region (deployed on air-launched cruise missiles, land-based missiles, and SLBMs) dwarf in number and in capability the systems fielded by both China and North Korea combined.⁷ It is interesting that the United States has chosen to deal with this continuing Russian threat through a two-pronged policy of arms control and economic aid, rather than by military means. As part of the U.S. Cooperative Threat Reduction (Nunn-Lugar) program, for instance, the United States recently provided Russia with \$8.4 million in technical assistance to assist the Pacific Fleet's submarine facility at Bol'shoy Kamen' (near Vladivostok) in meeting its START I dismantlement commitments.

By contrast, the United States has taken a quite different approach to a second regional trend: the rising capabilities of China and North Korea. These two states have a much lower objective capability, but a much higher perceived *intention* to use their ballistic missiles. Part of the U.S. concern—and the justification for the military-oriented U.S. response—is that both states have exhibited a clear desire to develop new and longer-range missiles to threaten U.S. friends and allies. Moreover, in

East Asia, the source of the threat is not transfers of technology from outside the region, but instead domestic production lines in both China and North Korea. This means that strategies to combat the threats they pose cannot be aimed simply at developing more effective export controls, but must instead convince these producer states that their own best interests lie in self-restraint—a much more difficult task.

Despite the still-limited nature of these missile programs, recent media reaction to Chinese and North Korean systems has at times bordered on hysteria. One report describes their respective regional missile ranges as “circles of fear.”⁸ To put this in perspective, there are no such articles in the press today discussing “circles of fear” surrounding Russian, British, or French missile forces, despite their far greater destructive capabilities. This highlights the importance of the *political* element in current threat perceptions and the need to consider politically oriented solutions. Yet, while intentions are clearly an important factor in assessing any country's military potential (and arguably the most important), it is also essential to take stock of each state's objective missile capabilities.

In terms of theater-range capabilities, China's arsenal includes the solid-fueled, road-mobile DF-11, -15, and -21 missiles, with top ranges of 185 miles, 375 miles, and 1,125 miles, respectively.⁹ Some 150 tactical nuclear weapons have been deployed on these short-range missiles. Other theater-range systems include the liquid-fueled DF-3A IRBM (with a 1,750-mile range) and the sea-based JL-1 (with a range of just over 1,000 miles). None of these missiles are MIRV-capable, although China is clearly interested in either developing or acquiring this technology, perhaps from Russia or Ukraine. China also possesses a large stable of cruise missiles, but these weapons are not yet believed to be nuclear-capable. Meanwhile, China's relatively modest 300-warhead strategic nuclear arsenal is deployed among its longer-range missiles (DF-3s, DF-4s, DF-5s), its JL-1 SLBMs, and its bomber force. However, only the DF-5s (estimated at seven total warheads) are capable of reaching the continental United States.¹⁰

The threat of Chinese use of its short-range missiles has been raised to date largely in the context of its dispute with Taiwan over sovereignty. Notably, while China did fire four test missiles in the spring 1996 confrontation—in a vain attempt to intimidate Taiwanese voters

on the eve of the presidential elections there—it had planned to fire more than 20. This indicates that international reaction may have had some tempering effect on China's behavior. It is worth noting that China also seems to recognize the significant difference between conducting tests of these systems and actually using fully armed missiles against real targets (such as population centers on the Taiwanese mainland). Given the strong U.S. reaction to the tests, China could not have been left with the signal that it would face any less of a response (and likely a much greater one) in case of an actual attack.

However, there are other possible targets of Chinese missiles: one of the many co-claimants of the Spratly Islands, for example, or Japan, with which China has a dispute over the Senkaku Islands. Ironically, the other state with the most to worry about Chinese theater missiles is Russia, whose sparsely populated Far Eastern territories were taken from China during a period of weakness in the mid-1800s. Yet, despite this situation, there is no discussion in Russia of a "missile threat" emanating from its southern border. Instead, there has been an effort to establish confidence-building measures (CBMs), troop withdrawals, and detargeting arrangements, all of which have defused bilateral tensions considerably.

As far as the North Korean missile threat is concerned, Pyongyang had a very ambitious program in the late 1980s and early 1990s,¹¹ but has maintained a test moratorium on longer-range systems since the signing of the October 1994 Agreed Framework with the United States. Whether this has been due to political changes or simply a lack of funding for such expensive R & D projects is difficult to determine. What is known is that North Korea's current stable of *tested* missiles includes variants of Soviet Frog and Scud missiles with a top range of only just over 300 miles.¹² It is worth noting that circular error probability (CEP) estimates for these systems are nearly one mile, making them virtually useless for precision attacks on power stations or military targets unless tipped with nuclear, biological, or chemical weapons. (In defensive terms, however, it is not clear that existing TMD systems would be effective against non-conventional warheads, even assuming their ability to hit the missiles themselves.)

Development on the feared longer-range systems (*Nodong-1* and *-2* and *Taepo-dong*) seems to have stalled, although unsubstantiated U.S. reports suggests a

possible, untested *Nodong* range of up 600 to 750 miles. It is worth noting that some U.S. TMD supporters make even stronger claims. U.S. Congressman Robert Ehrlich (Republican, Maryland), for example, makes the case that "North Korea's Taepo Dong 2 ballistic missile, now in development, may be capable of reaching U.S. cities by 2000."¹³ Similarly, a recent Heritage Foundation report, calling for near-term deployment of both TMD and national missile defenses (NMD), uses as one justification the point that "the Taepo Dong-2 could have a 6,200-mile range, which would cover half the continental U.S."¹⁴

By contrast, both the U.S. Central Intelligence Agency and a senior government advisory panel have discounted these claims and have argued instead that North Korean missiles will not be able to reach the United States until at least the second decade of the next century.¹⁵ In support of these analyses is the absence of *Nodong* tests since 1994, making it very difficult to validate the more threatening reports or consider these missiles in any sense reliable or accurate.

QUESTIONS OF LIKELY TMD EFFECTIVENESS

Despite the limits of existing Chinese and North Korean capabilities, a serious problem in the existing drive for near-term TMD deployment is that current U.S. technologies can defeat very few of even these missiles with any degree of dependability. The situation is likely to become worse 10 years further down the road when these states will be able to modify their missiles to develop effective countermeasures. Well-known studies of the Patriot during the Gulf War—by MIT's Theodore Postol, the Office of Technology Assessment, a U.S. Congressional committee, and the Israeli military¹⁶—show that it either provided only minimal effectiveness (less than 10 percent) or, according to some accounts, may have caused *more* damage than the Scuds alone, due to falling debris from failed intercepts. Patriot's lack of success in defeating relatively slow and simple Scud missiles not armed with decoys (or undertaking countermeasures), suggests that serious questions must be raised about the likely effectiveness of even Patriot upgrades. The fact that the U.S. military has opted for an alternative missile (ERINT) for its own follow-on system (PAC-3) indicates that certain currently deployed Patriot systems may have been over-sold to U.S. allies in East Asia.

As for the planned Theater High Altitude Area Defense (THAAD), its recent tests have not performed up

to expectations. Indeed, in early March it failed a fourth consecutive test by failing to intercept a test missile launched on the White Sands Missile Range.¹⁷ Given this record and the almost \$2.5 billion spent on the system already, convincing especially the Japanese to sign on for an expensive, long-term commitment to joint development of THAAD with the United States has become a hard sell for the Clinton administration, straining the alliance more than strengthening it. In alliance terms, seeking security through deterrence or through other means (whether diplomatic or retaliatory) can be better than having an ineffective defense (especially one that proves both ineffective *and* costly).

Currently, Japan is considering four TMD options proposed originally by the Pentagon in 1994.¹⁸ These include: 1) use of the two Aegis-equipped destroyers in combination with two AWACs aircraft and 24 ground-based Patriot sites (estimated cost: \$4.4 billion); 2) an enhanced option using six Aegis destroyers, two AWACs aircraft, and 24 Patriot sites (estimated cost: \$15.2 billion); 3) a middle range option consisting of THAAD missile sites, 24 Patriot sites, and AWACS aircraft (estimated cost: \$8.7 billion); and 4) another mixed option relying on two Aegis ship-borne systems, THAAD missiles, and 24 Patriot sites.¹⁹ Recently, the U.S. government decided to sweeten the deal for Japan by granting Tokyo free access to classified U.S. satellite intelligence (early warning data), but it has not yet had any decisive impact (except possibly putting U.S. intelligence at risk).²⁰

In fairness, there are certain short-range missiles that some of these systems might stop effectively, especially a relatively small number of missiles launched in an individual sequence over time. However, barrage attacks or the use of decoys, submunitions, and countermeasures would likely overwhelm even planned TMD technologies.²¹ Moreover, there are no effective anti-cruise missile defenses, meaning that any defensive “shield” built with current technologies will have high levels of permeability.

More serious, of course, is the threat North Korean missiles pose to South Korea or U.S. forces there. Here, the question of proximity creates an inherent vulnerability that no amount of missile defenses is likely to be able to overcome. There are simply too many North Korean missiles that can reach the South in too short a period of

time. The only ultimate solution to this problem, therefore, can only be a political one.

THE REGIONAL POLITICAL CONTEXT REGARDING TMD DEPLOYMENTS

Given the above military and technical context of the East Asian TMD debate, it is important now to turn to the regional political context within which these systems are being considered. Are these systems likely to improve these countries’ sense of security, and strengthen their ties to the United States? Or, alternatively, might they instead cause new tensions in U.S. alliance relations due to their great expense and possible ineffectiveness?

In contrast to the U.S. debate over TMD, which has focused almost exclusively on possible threats, the Japanese debate has focused narrowly on two issues: cost and effectiveness. A reading of the Japanese media reveals that Japanese analysts are only too aware of the limited utility of the Patriot system in the Gulf War. They cite numerous critical reports, including the Postol study. Indeed, a strong trend among Japanese reactions has been to view U.S. intentions as largely self-interested: i.e., getting Japan to pay for a defensive system that the U.S. public has been unwilling to fund

Japanese critics have also looked askance at the record of past U.S. efforts in the area of missile defenses. As one author notes regarding the Strategic Defense Initiative in the 1980s: “It was like throwing...money in a ditch.”²² Notably, this analyst makes the case that the United States’ focus on selling technology to even states of questionable proliferation status (such its sales to Iraq before 1991) helped create the threats it now faces. Rather than use diplomatic measures, he argues, “...the United States does not attempt to prevent the proliferation of missile technology; ...[yet] it continues to pour huge amount[s] of money into the development of anti-missile measures....” He suggests that this is like “lighting a fire and putting it out,” and questions the ultimate point of Japan signing up for these efforts. He concludes: “What is needed is not a ‘firm resolution’ to keep following the United States, but an effort toward comprehensive disarmament and detente in East Asia.”²³

Other Japanese authors note the extremely high expected program costs of TMD development (estimated at up to \$15 billion) relative to Japan’s total defense outlays (\$35 billion per year).²⁴ One analyst quotes a se-

nior Japanese defense official to the effect that the United States is making unrealistic demands: "It is like asking me to let Akebono [a Hawaiian-born sumo wrestler] use the bathtub in my house."

Still other analysts point to the warming of U.S.-North Korean relations and the North Korean economic crisis as steadily reducing the potential missile threat. Indeed, the point is raised that in 10 years, when the planned TMD system is scheduled to become fully effective, North Korea may not even exist.²⁵ Alternatively, some analysts question whether in the current political situation a hasty deployment of provocative missile defenses might damage chances for a peaceful evolution of the North Korean regime, or at least its peaceful demise.

Among supporters of TMD, one finds certain circles associated with Japanese defense industry, especially smaller firms that have fewer civilian products to rely upon.²⁶ They view these technologies as possible money-makers. However, limits in the Japanese constitution on the export of military technologies and in official Japanese policy against the militarization of space may provide top-end boundaries on how far Japanese companies can go in joint development of THAAD or other upper tier systems.²⁷

The result is a Japan that is still divided on the TMD question. Despite U.S. pressure, many officials seem to be looking for a way to say "no." The main reason seems to be budgetary, but there are also concerns over popular reactions to what would be a step towards a more militarized Japan. These difficulties have caused the government's "study period" regarding TMD participation to become prolonged, pushing out a decision on the issue until at least late summer.²⁸

As far as Seoul is concerned, it too has been reluctant to place orders for Patriot-type systems, fearing the result may simply be a North Korean over-reaction and compensatory missile building, thus worsening the overall threat. Nevertheless, in a June 1996 meeting, U.S. Commerce Secretary Mickey Kantor urged Seoul's Minister of Trade and Industry Pak Chae-yun to expand its purchases of Patriot and Patriot follow-on systems from U.S. firms.²⁹ More recently, while again raising concerns about the North Korean threat, U.S. Secretary of Defense William Cohen issued a stern warning to South Korea against purchasing Russia's cheaper S-300V TMD system, causing visible strain in relations between Washington and Seoul.³⁰

Taiwan has been a more fervent supporter of near-term TMD given the immediacy of the threat from China. Notably, it is alone among U.S. friends in the region in deploying its own TMD weapons (the *Tien Kung* series). Its new system (*Tien Kung-3*) is claimed to have the capability to destroy ballistic missiles as well as cruise missiles,³¹ possibly even giving it an advantage over expected THAAD capabilities.³² Indeed, at least one Taiwanese analyst suggests that the *Tien Kung* system (with a range of up to 300 kilometers) may be more effective than current-generation Patriot missiles (which have an effective range of only 160 kilometers).³³ The potential viability of this system gives the United States a useful option for holding off on further TMD sales to Taiwan. Instead, it might provide a pathway for the United States to develop a more productive alternative policy: continuing its naval support role, but lowering its TMD profile and developing instead a more balanced position to enable it to play a possible future role in encouraging negotiations between the two sides.

As important as the reactions of U.S. friends and allies are in shaping the strategic environment regarding U.S. TMD deployments, it is also worth examining the strategic choices facing the possible users of ballistic missiles: China and North Korea. How might their views be tempered by strategic constraints operating on their possible use of offensive missiles against their neighbors?

FACTORS AFFECTING CHINESE AND NORTH KOREAN DECISIONMAKING ON MISSILE USE

As far as China is concerned, there are a number of sound reasons to believe that China would be extremely hesitant to use missiles against U.S. forces or against Japan. Apart from fear of an overwhelming military response by the United States, there are significant non-military factors that would undoubtedly affect any Chinese decision about possible use. Japan is a major source of investment and trade for the Chinese, which their economy can ill-afford to lose. Similarly, the crucial role for Chinese products played by the U.S. market, which would immediately close if an attack against U.S. forces were to take place, cannot be ignored by Beijing. While a trade war would cause minor inconveniences for U.S. consumers, it could cause decades of irreparable damage to the Chinese economy. Moreover, given the ethnic and regional disturbances likely to be caused by a serious economic downturn in China, such

a conflict with the United States could well make China ungovernable. For these reasons, the only plausible missile threat posed by Chinese offensive missiles is that facing Taiwan.

As noted above, however, the United States is playing from its weakest cards when it emphasizes its ability to “defend” Taiwan against a Chinese attack. This is particularly the case if China chooses to use its missiles for a “demonstration” shot at Taiwan, such as firing an armed missile into an uninhabited area on the island.³⁴ A better suit for the United States is that of an honest broker between the two sides, to encourage negotiations on a long-term settlement of their differences (perhaps a Taiwanese decision to accept the place of an independently governed province within China, in return for a pledge from Beijing not to station military forces there).

While China’s aggressive potential should not be discounted, it is worth pointing out that China’s own fears of especially U.S. missiles have caused it to begin its own TMD deployments,³⁵ using recently purchased Russian S-300PMU missiles. Depending on how the United States handles this issue, therefore, Chinese fears could create the roots for a potential TMD arms race that pushes Russia and China into even closer technological cooperation—something clearly not in U.S. interests.

In regards to any possible North Korean military offensive, the dilemma for Pyongyang is that its teetering economy can ill-afford to engage in any prolonged conflict. Indeed, even a test of any new missiles would jeopardize Pyongyang’s access to international food aid, which now supports a considerable portion of the North Korean population. While Pyongyang’s leadership may not have a reputation for altruism, it certainly must be concerned for the governability of its population. In this context, it is not surprising that the suspected *Nodong-1* test in the fall of 1996 was never carried out. Recent high-level defections also suggest that the North Korean regime may now be beginning to worry more about *internal* threats to its continued existence than external ones.

These points do not rule out the possibility of either Chinese or North Korean use of offensive ballistic missiles, but they do suggest the extreme gravity of circumstances which would be necessary to trigger such an attack.

ACHIEVING SECURITY VERSUS ATTEMPTING DEFENSE

The broader question facing the TMD debate in East Asia is what are the ultimate goals of the United States and its allies: to move ahead with unilateral military measures, despite likely political costs; or to pursue a new security framework that seeks to overcome regional threats through cooperation and the building of norms? According to the analysis presented above, to rush ahead with premature TMD technology would create the worst of both worlds. It would accomplish neither effectiveness from a military standpoint nor contribute to regional peace and security. Moreover, it may damage relations with U.S. allies if Washington continues to insist on U.S. technology purchases and commitment to an essentially military response.

Fortunately, the United States has other options. In this light, it is worth considering as an alternative approach a series of linked initiatives aimed at removing the missile threat through arms control. The elements of such a package are outlined below.

Regarding negotiations with China, there are a number of possible initiatives regarding TMD deployments, ranging from outright cooperative bans to establishing “rules of the road.” As noted above, while China has voiced strenuous opposition to U.S. deployments and sales of TMD technology to its allies, Beijing has also begun deployment of Russia’s S-300PMU missiles. This gives the United States some leverage to begin talks on *mutual* TMD limitations. One measure could be a joint agreement to ban TMD systems. Although there seems to be little support for such a measure on either side at present—at least for relatively simple ground-based systems that have a dual anti-aircraft use—a build-down approach or a grandfathering of existing systems (freezing them in place) could be paths for reaching an agreement.

Alternatively, there is considerable room for discussions with the Chinese on establishing numerical limits, range limits, speed limits, and testing restrictions on future TMD systems. The two sides could also agree to rule out space-based systems. While U.S. TMD supporters might argue that the United States should exploit its current technological advantages, the history of the Cold War suggests that such tactics rarely succeeded with the Soviet Union. A future U.S.-Chinese TMD race would be particularly short-sighted for Washing-

ton, due to the fact that China is not bound by the limitations of the Anti-Ballistic Missile (ABM) Treaty. In this context, a better approach would seem to be working to limit TMD deployments, while beginning discussions on simultaneous reductions in the number of offensive missiles deployed.

Even before moving to missile reductions, however, a concept worth examining is a “no-first-use” pledge for short-range missiles (with ranges of perhaps 100 to 350 miles). Although no such doctrine has been attempted elsewhere in the world, the Chinese would be hard-pressed to deny such a proposal out-of-hand, given their widespread promotion to other nuclear powers of their own no-first-use doctrine regarding nuclear weapons. Moreover, if China did reject a no-first-use pledge on short-range missiles, this would indicate to the rest of the region that China may indeed harbor aggressive intentions against them. Chinese rejection would also provide the United States and its allies with a hard-to-deny justification for deploying TMD systems in the region.

Another area where Chinese behavior has clashed with U.S. policies has been in sale of missile technologies, especially to Iran, Pakistan, and other states which Washington regards as having dangerous proliferation intentions. Therefore, another missile initiative worth discussing with China would be new CBMs that would put teeth into Chinese promises regarding the Missile Technology Control Regime (MTCR). To date, U.S. efforts have largely failed in this regard. The problem relates in part to the lack of *positive* incentives offered by the United States to date in areas that China cares about. If Washington agreed to halt arms sales of TMD technologies to Taiwan, however, it is likely that Beijing would begin to treat more seriously U.S. efforts to reach a *quid pro quo* on halting exports of missile technology to countries of U.S. concern.

Other areas worth exploring are possible U.S. TMD limits (or pledges to halt deployments) in return for China’s pledge not to deploy MIRVed missiles. More than even highly effective U.S. TMD deployments, such a pledge would help cap the future threat faced by U.S. forces, as well as by its regional allies and friends. The format for such a pledge might be a side treaty that would bring China into the U.S.-Russian START process, whereby Beijing would agree to match Washington’s and Moscow’s pledges to limit themselves to only single warhead missiles in all future ground-based deployments.

Regarding North Korea, the U.S. approach needs to be somewhat different, as the concerns on the Korean Peninsula involve broader issues related to the armistice and inter-Korean relations. Part of this process could involve moves to revive the cooperative denuclearization agreement of 1992, which—while it has not been implemented—has not yet been repudiated by either side. Among its elements, this agreement calls for the establishment of a joint inspection regime for nuclear facilities to ensure that no weapons-related activity is taking place. Expansion of this agreement to cover missile facilities would be a useful CBM that might mitigate the future need for U.S. TMD deployments in South Korea (or in Japan). A corresponding U.S. pledge not to deploy more advanced TMD systems (as long as Pyongyang maintains its long-range missile test moratorium), would go a long way towards reducing perceived vulnerabilities within the skittish North Korean leadership, while also giving away little in terms of meaningful defensive capabilities.

The ultimate criteria for U.S. TMD deployments in East Asia should be whether they on the whole increase regional security and decrease tension, rather than serve to foment rivalries and make war more likely. TMD deployments in the latter context, even of systems that might be highly effective from a military standpoint, would run counter to U.S. interests and to those of U.S. friends and allies in the region.

CONCLUSION

The analysis presented above makes the case that by moving ahead too rapidly with TMD deployments, the United States risks creating a worse security environment for the very type of arms control and nonproliferation policies it seeks to promote in post-Cold War East Asia. Much like the decision to deploy MIRVs on U.S. missiles in the late 1960s, the United States seems to be applying a technological “fix” that is likely to cause a highly unfavorable reaction. Instead, as the Cold War experience shows, states tend to respond to military deployments that they perceive as threatening not with a cooperative response, but with a military one. Thus, while TMD deployments may provide some near-term benefits for U.S. defense contractors, they are likely to leave U.S. forces and friends in East Asia ultimately more vulnerable—by laying the foundation for a regional missile race, rather than more highly desired missile *reductions*. Moreover, if the TMD systems deployed are ever

used and fail to perform (as they failed in the Gulf War), the United States will have sown the seeds for the weakening of its alliances in East Asia, due to its current policy of promoting purchases of existing U.S. technologies.

Finally, there are also important questions TMD deployments raise in terms of relative costs in an era of tight defense spending. Funding for the Agreed Framework with North Korea is currently under fire in the United States, yet these expenditures aimed at removing Pyongyang's ability to build a bomb (\$4.5 billion for all countries involved) are dwarfed by likely TMD expenditures. Indeed, the current U.S. request for the Agreed Framework is \$25 million, compared to the \$2.58 billion slated for next year's missile defense budget.³⁶ The total U.S. portion of the Agreed Framework's expenses is \$300 million, spread over more than a decade.³⁷ By contrast, the United States expects to spend over \$21 billion on missile defense research and deployments from 1998 to 2003 alone.³⁸ These figures highlight questions worth addressing regarding relative priorities. They also suggest the need to adopt a "Nitze criteria" for TMD. That is, no TMD system should be more expensive to develop and deploy than it would cost possible adversaries to defeat it.

Given these considerations, the question of the broader impact of near-term TMD deployments on regional security should be the overriding criteria for future U.S. policy. Put simply, political means of diffusing current problems in the regional missile environment may be considerably less costly than military means. They may also have the important collateral benefit of making future wars less likely.

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² Testimony by Lt. Gen. Lester L. Lyles before the Subcommittee on National Security of the Committee on Appropriations, U.S. House of Representatives, April 16, 1997.

³ See Wyn Bowen and Stanley Shepard, "Living under the Red missile threat," *Jane's Intelligence Review* (December 1996), pp. 560-564.

⁴ For an informed technical discussion of these issues, see James A. Lamson and Wyn Q. Bowen, "'One arrow, three stars': China's MIRV programme," *Jane's Intelligence Review* (May 1997), pp. 216-218.

⁵ On the tendency of the media to hype the proliferation threat instead of analyzing its actual characteristics, see Harald Müller, "Neither Hype nor Complacency: WMD Proliferation after the Cold War," *The Nonprolif-*

eration Review 4 (Winter 1997), pp. 62-71.

⁶ See James Clay Moltz, "Regional Tensions in the Russo-Chinese Rapprochement," *Asian Survey* 35 (June 1995), p. 515.

⁷ Figure calculated by author by counting Russian missile bases, bomber wings, and ports in the Siberian, Transbaykal, and Far Eastern Military Districts. Sources used: Monterey Institute of International Studies and Carnegie Endowment for International Peace, *Nuclear Successor States of the Soviet Union: Nuclear Weapon and Sensitive Export Status Report* (May 1996), pp. 11-16; Andrew Duncan, "Russian Forces in Decline," *Jane's Intelligence Review* (January 1997), p. 17; and Capt. Richard Sharpe, ed., *Jane's Fighting Ships 1996-1997* (Coulson, England: Jane's Information Group, Ltd., 1996), p. 546.

⁸ See, for example, "Circles of Fear," *The Economist*, January 4, 1997, p. 33.

⁹ Calculated from kilometer equivalents listed in chart in Bowen and Shepard, "Living under the Red missile threat," p. 563.

¹⁰ Shannon Kile and Eric Arnett, "Nuclear arms control," Table 14.5 ("Chinese nuclear forces, January 1996"), *SIPRI Yearbook 1996: Armaments, Disarmament and International Security* (Oxford: Oxford University Press, 1996), p. 319.

¹¹ On these developments, see Greg J. Gerardi and James A. Plotts, "An Annotated Chronology of DPRK Missile Trade and Developments," *The Nonproliferation Review* 2 (Fall 1994).

¹² See Lisbeth Gronlund and David Wright, "Missile Defense: The Sequel," *Technology Review* (May/June 1997), p. 33.

¹³ Rep. Robert Ehrlich, "Missile Vulnerability Grows: U.S. Faces Ballistic Threat as Clinton Dawdles," *Defense News*, January 13-19, 1997, p. 21.

¹⁴ Richard D. Fisher, Jr., "Building a More Secure Asia through Missile Defense," *Asian Studies Center Background No. 138*, Heritage Foundation, October 24, 1995 (<http://www.heritage.org/heritage/library/categories/forpol/asc138.html>).

¹⁵ Barbara Starr, "Taepo Dong Set for Delays," *Jane's Defence Weekly*, December 11, 1996, p. 10. The article cites testimony before the U.S. Senate Intelligence Committee by former CIA Director Robert Gates regarding the panel he chaired that reviewed the CIA's National Intelligence Estimate 95-19. Also see also his panel's published report, "NIE 95-19: Independent Panel Review of 'Emerging Missile Threats to North America during the Next 15 Years'" (OCA 96-1908), U.S. Central Intelligence Agency, December 23, 1996.

¹⁶ See Theodore A. Postol, "Lessons of the Gulf War Experience with Patriot," *International Security* 16 (Winter 1991/92); for a comprehensive review of the other reports, see David L. Chandler, "The Patriot, No Letup in War of Wars, But Outside Studies Back Critics of Missile's Performance," *The Boston Globe*, April 4, 1994, p. 25.

¹⁷ "U.S. missile fails 4th straight test," *United Press International*, March 6, 1997, Washington (on-line).

¹⁸ For a recent discussion of the four options and current Japanese responses, see Steven A. Hildreth and Jason D. Ellis, "Missile Defense Redivivus: Allied Support for Theater Missile Defense," *Orbis* 40 (Winter 1996), pp. 110-111.

¹⁹ Naoaki Usui, "Japan Tackles Antimissile Options," *Defense News*, September 4, 1994, p. 4.

²⁰ On these points, see Gronlund and Wright, "Missile Defense: The Sequel," p. 34; also John Pike, "The Ballistic Missile Defense Debate," *Current History* (April 1997), pp. 157-161.

²¹ Kyodo News Agency, June 10, 1996 (on-line).

²² Shingo Hayashi, "'Chinese Threat' is 'Last Resort' for U.S. Arms Industry," *Sapio*, May 22, 1996, pp. 16-19; in FBIS-TAC-96-007 (22 May 1996)(electronic version).

²³ *Ibid.*

²⁴ "Postponement of TMD Participation," *Mainichi Shimbun* (Tokyo), May 20, 1997 (in Japanese, provided to author by Hirofumi Tosaki and translated by Peter Evans), p. 1; see also Japanese officials cited by Clifford Krauss, "Japan Reportedly Ready to Reject a Role in U.S. Antimissile Plan," February 15-16, 1997, *International Herald Tribune*, pp. 1, 7; finally, see article by Shunji Taoka, *Aera* (Tokyo), July 1, 1996, pp. 62-63; in FBIS-EAS-96-131 (1 July 1996)(electronic version).

²⁵ Japan, for example, is becoming more concerned about dealing with what it considers to be more realistic security threats, such as illegal Chinese immigration. On this issue, see Sheryl WuDunn, "Japan Worries About a Trend: Crime by Chinese," *The New York Times*, March 12, 1997, p. A4.

²⁶ I thank Bates Gill for pointing out this dynamic, which is drawn from his own research on the Japanese defense industry.

²⁷ Gwen Robinson, "Tokyo split on missile defence system," *Financial Times* (London), May 22, 1997, p. 6.

²⁸ See "Government Decides to Postpone Decision on Participation in US-Led TMD Initiative," *Nikkei Shimbun*, June 3, 1997, p. 1, and "U.S. Agrees to Japan's Postponement of Decision on Participation in TMD," *Asahi Shimbun*, June 5, 1997, p. 1; both abstracted in NAPSNet Daily Report, June 6, 1997 (Nautilus Institute, Berkeley, Calif.).

²⁹ Kang Hyo-son and Pak Chong-hun, "Kantor Asks ROK to Purchase Theater Missile Defense System," *Choson Ilbo* (Seoul), July 2, 1996, p. 2; in FBIS-EAS-96-128 (2 July 1996)(electronic version).

³⁰ "USA urges S Korea to buy Patriot over S-300V," *Jane's Defence Weekly*, April 16, 1997, p. 3.

³¹ Bowen and Shepard, "Living under the Red missile threat," p. 56.

³² On this point, see Kao Hsuing-Po, "The PRC Exercises Were Not Aimed at Taiwan," *Chien-Tuan K'e-Chi* (Defense Technology Monthly), April 1996, No. 4, pp. 24-29; in FBIS-CHI-96-124 (1 April 1996)(electronic version).

³³ Benjamin Yeh, Taiwan Central News Agency (electronic version), June 17, 1996; in FBIS-CHI-96-118 (17 June 1996)(electronic version).

³⁴ I thank Monte Bullard for raising this scenario in a discussion of these issues. Dr. Bullard also notes that the United States needs to keep in mind that any TMD system it provides to Taiwan may at some future point fall into Beijing's hands, if the mainland assumes control over the island (whether cooperatively or otherwise).

³⁵ See Masaru Soma, "PRC: Source on Developing Multistage Air Defense System," *Sankei Shimbun* (Tokyo), May 30, 1996, p. 1; in FBIS-CHI-96-107 (30 May 1996)(electronic version).

³⁶ U.S. Department of Defense documents, cited by Bill Gertz, "Pentagon lacks time, money to launch missile defense," *The Washington Times*, May 6, 1997, p. A1.

³⁷ U.S. Department of State sources, cited by Steward Stogel, "N. Korea lags in nuclear cleanup," *The Washington Times*, June 4, 1997, p. 20.

³⁸ Jeff Erlich, "Pentagon Seeks to Boost Missile Defense Fund," *Defense News*, February 17-23, 1997, p. 18.