NMD, TMD, and Nuclear Arms Control

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As stated in the opening paragraphs of this paper, mutual vulnerability as a basis for "strategic stability" has been predicated, in part, on an intensely hostile relationship between the two major nuclear powers. As long as Moscow sticks to the traditional concept or even the initiatives recounted above, it would not be very likely that the United States would be able to neutralize a significant proportion of its strategic missiles. Greater transparency would substantially reduce the penetrability of not only China's but also Russia's retaliatory forces (5). Moreover, the potential of undermining the retaliatory capabilities of Russia and China, its deployment would not necessarily spell the end of nuclear arms control if appropriate political initiatives are taken to ensure that this potential will not be brought to reality. To ensure the prospects for nuclear arms control, however, serious efforts should also be made to adapt the concept of "strategic stability" to the nature of today's major power relations so that it will no longer rest primarily on the mutual vulnerability to nuclear attack.

Text

As far as Russia is concerned, neutralization of a significant proportion of those warheads used in a retaliatory strike. In most recent official terminology (in the case of China), the United States would also have acquired the ability by then to shoot down a large proportion of those warheads used in a retaliatory strike.

As the United States has faced difficulties in attempts to persuade Russia and China that NMD is not directed at them primarily because, from a technical standpoint, there is no denying that the NMD program – whether independently or in conjunction with the Theater Missile Defense (TMD) program – has the potential to undermine their strategic capability. Most importantly, China's current ICBM force, consisting of approximately 20 missiles, could be effectively neutralized by NMD in its initial phase if the ICBM force of which was destroyed or neutralized by NMD. Although China might come to possess as many as 800 strategic warheads in fifteen years, as estimated by the U.S. intelligence community (3), the United States would also have acquired the ability by then to shoot down a large proportion of those warheads used in a retaliatory strike.

Moreover, NMD could be effectively combined with TMD to produce a greater effect on strategic missiles. The ABM-TMD Demarcation Agreements of 1997 remain unratified, and the non-proliferation and non-disarmament of nuclear arsenals must be emphasized. Upper-tier TMD systems like the Theater High Altitude Area Defense (THAAD) system and the Navy Theater Wide (NTW) defense system would have some, but very limited, capacity to intercept long-range missiles. If interceptors could be guided in flight using track data from advanced radars and satellites that had been introduced as elements of NMD, their ability to shut down strategic warheads would increase many folds. With more than one thousand THAAD interceptors and several hundred NTW interceptors planned, such linkage of NMD and TMD would substantially reduce the penetrability of not only China's but also Russia's retaliatory warheads (5).

Finally, apart from the possibility of its being tied to the NMD program, the TMD program could prompt China to enlarge its missile forces because of regional considerations. First, TMD might be extended to Taiwan, which China regards as part of its own territory. Beijing would fear that as people in Taiwan become more confident in their ability to defend themselves, they will be further inclined to support a call for independence. Second, it can be assumed that China will place a high value on its potential to launch a nuclear strike against Japan (and possibly some others countries in Asia). It is with this potential that it hopes to deter the United States from militarily interfering in what Beijing considers internal affairs, and keep Japan in check generally. Participation by Japan (and others) in the TMD program would partially offset this potential.

On the other hand, if TMD is deployed alone, it is less likely to be a factor in slowing down the reduction of Russia's nuclear stockpile. Moscow remains receptive to the idea of theater missile defense as distinct from strategic missile defense. This is suggested by the fact that it continues to cherish the Demarcation Accords for all their limitations. Russia has agreed to construct a new large-site ICBM in Asia, however, on condition that it be armed with conventional rather than nuclear warheads. The American ambassador to Moscow, David Satterfield, recently denied that the United States planned to deploy a working version of TMD in Europe.

One other consideration is that the United States is planning to deploy a limited National Missile Defense (NMD) system, the deployment of which President Clinton has recently postponed. Those conditions no longer appear to pertain. Despite important disagreements between the United States and Russia, they have definitely ceased to be enemies. The United States and China, meanwhile, maintain a diplomatically correct and economically expansive relationship. Moreover, NMD is ostensibly aimed at "rogue states" (or "states of concern" in more recent official terminology) like North Korea, Iraq, and Iran - none of which could possibly engage in a nuclear arms race with the United States.

The vaunted "offensive defense" dynamics would not be set in motion, therefore, if Washington managed to convince Moscow and Beijing that the limited defenses it is planning to deploy are indeed directed against the "rogue states," not them. Failure of such efforts, however, would doubtlessly entail deleterious consequences for nuclear arms control. It is that which or without NMD, Russia's nuclear stockpile is expected to shrink substantially over the next decade. Regardless of U.S. action on missile defense, China is likely to continue the policy of gradually modernizing its nuclear arsenals. As Russia and China become less certain about the penetrability of their strategic forces, however, they will seek either to limit the scope of nuclear reduction (in the case of Russia) or to accelerate the pace of nuclear buildup (in the case of China).

Moscow and Beijing have, in fact, clearly indicated that they would be ready to follow such a course of action. For example, President Vladimir Putin told the Duma prior to the START II vote in April that he would consider withdrawing from the "whole system of treaties" on arms control if Washington breached the ABM Treaty. Shao Zhuming, chief arms negotiator of his country might take in response to a large-scale missile defense by the United States. One option included, first and foremost, a significant increase in the number of nuclear warheads(2). Russia and China could, among other things, retain existing MIRVed ICBMs or deploy new ones, raise alert rates for strategic forces, and develop sophisticated "countermeasures" to frustrate NMD. Russia could also employ new "countermeasures" technologies, further complicating the operation of the NMD system. As long as Moscow has faced difficulties in attempting to persuade Russia and China that NMD is not directed at them primarily because, from a technical standpoint, there is no denying that the NMD program – whether independently or in conjunction with the Theater Missile Defense (TMD) program – has the potential to undermine their strategic capability. Most importantly, China's current ICBM force, consisting of approximately 20 missiles, could be effectively neutralized by NMD in its initial phase if the ICBM force of which was destroyed or neutralized by NMD. Although China might come to possess as many as 800 strategic warheads in fifteen years, as estimated by the U.S. intelligence community (3), the United States would also have acquired the ability by then to shoot down a large proportion of those warheads used in a retaliatory strike.

The assumption that large-scale missile defense is incompatible with nuclear arms control has been premised on an intensely hostile relationship between the hypothetical attacker and the defender, and the ability of the former to readily enlarge its strategic forces if their penetrability should be perceived to decline due to the latter's forces cannot be defeated from a technical standpoint. The US NMD program (independent or in combination with the TMD program) has the potential of undermining the retaliatory capabilities of Russia and China, its deployment would not necessarily spell the end of nuclear arms control if appropriate political initiatives are taken to ensure that this potential will not be brought to reality. To ensure the prospects for nuclear arms control, however, serious efforts should also be made to adapt the concept of "strategic stability" to the nature of today's major power relations so that it will no longer rest primarily on the mutual vulnerability to nuclear attack.

Abstract


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by UMEOT O Tetcuva

The assumption that large-scale missile defense is incompatible with nuclear arms control has been premised on an intensely hostile relationship between the hypothetical attacker and the defender, and the ability of the former to readily enlarge its strategic forces if their penetrability should be perceived to decline due to the latter's forces cannot be defeated from a technical standpoint. The US NMD program (independent or in combination with the TMD program) has the potential of undermining the retaliatory capabilities of Russia and China, its deployment would not necessarily spell the end of nuclear arms control if appropriate political initiatives are taken to ensure that this potential will not be brought to reality. To ensure the prospects for nuclear arms control, however, serious efforts should also be made to adapt the concept of "strategic stability" to the nature of today's major power relations so that it will no longer rest primarily on the mutual vulnerability to nuclear attack.

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