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Shades of Sentinel?
National Missile Defense, Then and Now

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American expectations were modest for the June 2000 Clinton-Putin summit regarding efforts to change Russian opposition to a US proposal to amend the Anti-Ballistic Missile (ABM) Treaty to permit deployment of a limited national missile defense (NMD) system. Nevertheless, US officials hoped the Moscow meetings would "lay the groundwork for reaching agreement...to negotiate ABM Treaty changes."[1] Although the United States portrayed its proposal as only a limited system designed to protect against emerging long- range missile threats from "dangerous states of concern, such as North Korea, Iran, Iraq and Libya," the Russian government was not forthcoming.[2] Indeed, President Putin, while acknowledging the possibility of new missile threats, characterized the US proposal as a "cure which is worse than the disease."[3] Perhaps as significant as the divergence of positions on this issue is the similarity between the current US proposal and circumstances surrounding the US decision in 1967 to deploy a limited national missile defense system, subsequently named Sentinel. Equally important, Secretary of Defense Robert S. McNamara in announcing the decision cautioned against two dangers associated with the Sentinel plan that may offer insights for the present NMD debate.

The Decision to Deploy Sentinel

In September 1967, after two decades of ABM development programs, Secretary McNamara announced in a speech that the United States would deploy a system to protect itself against an emerging Chinese missile threat.[4] Although neither McNamara nor President Johnson had confidence in the ability of an ABM system to protect the United States from a full-scale Soviet missile attack, pressure was building from the Congress and the Joint Chiefs of Staff to deploy missile defenses in response to a series of Chinese nuclear tests and the flight of a Chinese ballistic missile.[5] In a speech to the editors of United Press International, Secretary McNamara explained the administration's rationale for a limited missile defense.[6]

> There is evidence that the Chinese are devoting very substantial resources to the development of both nuclear warheads and missile delivery systems.
>
> . . . [I]ndications are they will have . . . an initial inter-continental ballistic missile capability in the early 1970s, and a modest force in the mid-70s.

McNamara added that heretofore the lead-time for the Chinese to deploy a missile threat against the United States allowed for postponement of a decision to field a defensive system, but now it was necessary "to go forward with this Chinese-oriented A.B.M. deployment."[8]

In November, McNamara announced the light ABM system would be called Sentinel, and it became evident bases would be located near American cities to protect them from possible Chinese missile attacks. Growing public opposition to the program led newly-inaugurated President Nixon to suspend deployment until further studies were completed.[9] Nixon decided to field a system named Safeguard, not to shield American citizens but to protect silo-based nuclear retaliatory missiles at two air force bases. Only one ABM site was completed, but it experienced technical deficiencies that led to its deactivation in 1976 after the expenditure of $5 billion and only a few months of operation.[10] In the same year the United States deactivated Safeguard, the Chinese conducted their first ICBM test—well past the date projected by McNamara.[11] Equally significant, they did not deploy a "modest force in the mid-70s" as McNamara prophesied. Indeed, such a capability did not appear until 1993 or 1994, when China deployed about 14 ICBMs and perhaps 12 sea-launched ballistic missiles (SLBMs).[12]

In the years following its accedence to the ABM Treaty, which constrained American and Soviet missile defense activities, the United States continued ABM research and development, but until President Reagan declared his intention in 1983 to make nuclear weapons "impotent and obsolete," the program was limited. Reagan's vision was scaled-back, first by President Bush in 1992 and even further by the Clinton administration in 1993. In both cases the decline and dissolution of the Soviet Union and improved relations with the Russian government undermined the rationale for an NMD of the magnitude proposed by Reagan. By the late 1990s, renewed interest in NMD emerged as concerns were raised about the possibility that so-called "rogue" states could threaten the United States with long-range ballistic missiles armed with weapons of mass destruction—chemical, biological, or nuclear warheads.

The Ballistic Missile Threat to the United States

If, as some believe, the missile threat is sufficient to modify the ABM Treaty to permit deployment of a limited NMD costing perhaps more than $60 billion and possibly disturbing relations with Russia, China, and US allies in Europe, questions arise regarding the sources of this threat, its nature, and whether the threat merits a program as costly and potentially disruptive as the missile defense system proposed by the United States.[13]

According to a recent paper prepared by the National Intelligence Council,

> during the next 15 years the United States most likely will face ICBM threats from Russia, China, and North Korea, probably from Iran, and possibly from Iraq. The Russian threat...will continue to be the most robust

> and lethal, considerably more so than that posed by China, and orders of magnitude more than that potentially posed by other nations. . . .[14]

If one sets aside the Russian ICBM force, which American officials acknowledge the limited NMD could not repel, the most likely potential missile threats to the United States emerge from four sources, with other possible threats remaining strictly hypothetical. Yet, even possible missile threats posed by China, North Korea, Iran, and Iraq may be problematic.[15]

China currently deploys only about 20 ICBMs and 12 JL-1 SLBMs, with a modest range of 2,150 kilometers.[16] A National Intelligence Council paper notes that "Chinese strategic nuclear doctrine calls for a survivable long-range missile force that can hold a significant portion of the US population at risk in a retaliatory strike" and avers that "China will likely have tens of missiles targeted against the United States" by 2015.[17] It is unclear why China would deploy a significantly larger long-range missile force over the next few years. China has never possessed more than a small number of ICBMs, which, as the National Intelligence Council paper points out, constitute a retaliatory force; that is, a response to a nuclear attack against its homeland, not a first-strike capability. A survey of the International Institute for Strategic Studies series *The Military Balance* shows that between 1976 and 1994 China never deployed more than 8 ICBMs, and no SLBMs before 1993 or 1994. Even now the Chinese ICBM force is quite low compared with the United States and Russia. If an NMD system is deployed by the United States, China might see no alternative except increasing both the size and sophistication of its missile force in order to preserve its retaliatory capability—a possibility suggested by China's chief arms negotiator.[18]

Similarly, it is not certain that North Korea, Iran, or Iraq will pose missile threats to American territory that merit deployment of an NMD by 2005, as currently envisioned.[19] Among these countries, only North Korea might pose a near-term threat to the United States, albeit limited and only if it surmounts technical hurdles. If North Korea developed a reliable third-stage for its Taepo Dong-1 space launch vehicle (SLV) and a shroud to protect a warhead through the stress of atmospheric reentry it might be able to deliver a "light payload" to the United States, but analysts believe such a development is "unlikely."[20] In coming years the more likely possibility is that North Korea may test the more capable Taepo Dong-2. However, as a National Intelligence Council paper points out, this action could be "delayed for political reasons."[21]

Intelligence assessments highlight what North Korea *could* do to threaten the United States with long-range missiles, not necessarily what it *will* do. The apparent success of the June 2000 summit between North Korean leader Kim Jong Il and President Kim Dae Jung of South Korea and the on-going dialogue may prefigure the integration North Korea into the global mainstream. Even if the pace is slow and tentative, if incentives are created politically and economically for North Korea to moderate its behavior and to cease development of an ICBM, the outcome could be both less costly and less risky than NMD deployment. The landmark decision by the Clinton administration to ease some sanctions against North Korea should contribute to political normalization.

However, it may be detrimental to this process if inconsistent policies are pursued by the United States, such as asserting a North Korean ICBM threat as part of the rationale for NMD, while simultaneously seeming to support a North-South rapprochement.

In coming years Iran may also pose a long-range missile threat to the United States, although there is no certainty. A National Intelligence Council paper notes that

> Iran *could test* [italics in original] an ICBM that could deliver a several-hundred kilogram payload to many parts of the United States in the last half of the next decade using Russian technology and assistance.[22]

The paper further observes that analysts disagree on the timing of Iran's first test. Some believe the test is "likely before 2010 and very likely before 2015 (although an SLV with ICBM capability probably will be tested in the next few years)."[23] Yet other analysts assess "less than an even chance" for an Iranian ICBM test by 2015.[24]

Several features in this assessment merit scrutiny. First, the variance between analysts' assessments of when Iran might *test* an ICBM is sufficient to question the necessity for a deployed NMD system by 2005. Second, it has been suggested that Iran "is likely to test a space launch vehicle by 2010 that could be converted into an ICBM,"[25] but if it did so this would not establish the need for an NMD system, since an ICBM test does not constitute an operational threat. Finally, it is noteworthy that the potential for an Iranian ICBM capability seems to hinge on access to foreign technology, such as Russian or North Korean.[26] Perhaps, as an alternative to modifying the ABM Treaty or even the threat of a unilateral US withdrawal, Russia could be convinced to halt its assistance to Iran's missile program. For its part, North Korea may be dissuaded by the prospect of political and economic openings with the industrialized countries. Ultimately, the possibility of an Iranian ICBM program is as much a technology diffusion problem as a missile proliferation issue; thus, measures to curtail suppliers could have a greater impact than NMD.

Similarly, some experts believe that if Iraq receives significant foreign help it could develop an ICBM capability between 2005 to 2010, but most analysts contend it is unlikely Iraq could conduct a flight test before 2015.[27] The independent variable in this equation seems to be, much like Iran, the availability of external assistance and technology. For reasons noted above, an effective method to forestall an Iraqi ICBM capability may be to apply political and economic quids pro quo aimed at technology suppliers. Even if Iraqi intransigence prevents enforcement of UN Security Council Resolution 687, which prohibits Iraq from possessing any ballistic missile with a range greater than 150 kilometers, pressure on suppliers of critical technology may be key to prevent development of a long-range missile.

It is also problematic whether North Korea, Iran, or Iraq could equip ICBMs with weapons of mass destruction. Due to a variety of atmospheric and topographical factors, chemical warheads are not suitable to pose a large-scale threat to American cities.[28] Further, ballistic missiles may not be the preferred delivery method for biological

weapons. On long-range ballistic missiles, such as ICBMs, the agent must be well insulated against the heat of atmospheric reentry and effective dispersal is difficult due to high reentry velocities.[29] Finally, North Korean, Iranian, and Iraqi nuclear weapon "designs are likely to be too large and heavy" for missile delivery, coupled with the likelihood they will "have only a few nuclear weapons, at least during the next 15 years."[30]

The purpose of the foregoing discussion has not been to dismiss the concerns of advocates of a limited NMD. Rather, it is intended to illustrate that the ICBM threats ascribed to certain "states of concern" may be so problematic that they do not necessitate deploying an NMD system. The possibility that North Korea, Iran, and Iraq will develop and deploy ICBMs depends on several factors, such as US relations with these countries, which could improve instead of deteriorating; political and economic conditions in those countries, which could shift priorities from confrontation to cooperation with other states; and a host of other variables that cannot be known with a level of certitude to justify the political risk or economic cost associated with a policy shift on NMD deployment. Nearly 33 years ago, the United States made a premature decision to deploy a limited missile defense that proved to be both costly and unnecessary. The lessons of the Sentinel experience could be instructive in the current debate.

Sentinel Redux?

Near the end of his speech announcing the decision to deploy missile defenses, Secretary McNamara outlined two dangers. First, he observed that an ABM system could deter "only a narrow range of threats."[31] Today, and for the foreseeable future, the United States will confront threats to its security unlike the Cold War. A once well-defined threat emanating from an unambiguous source has been replaced by more amorphous threats from neglected or forgotten corners of the world. The deployment of a limited NMD would protect the United States from threats that may never emerge, while consuming political and economic capital that could be expended on other projects and programs of more immediate and diverse concern. Moreover, the deployment of a defensive system against uncertain threats could disrupt US relations with Russia and China at a time when their cooperation is necessary to resolve other issues and problems.

A second danger highlighted by McNamara was the temptation to expand a light ABM defense into a more robust system.[32] McNamara observed that failure to resist this impulse could result in an "arms race [that] would rush hopelessly on to no sensible purpose…."[33] Although the United States has assured Russia and China that the proposed NMD is not designed to defend against their missile forces, the system could be expanded to meet more robust threats. A recent Defense Department publication states that

> . . . initial deployment, Capability 1 (C1) will be limited to 20 missiles. Increasingly capable deployment options after C1 will add further capability to the NMD system.[34]

It is conceivable that the expandability of this limited system is a key factor in Russian and Chinese opposition to the plan, just as the capacity to enlarge Sentinel was the basis for McNamara's concern nearly 33 years ago. Rather than reducing "the strategic value of long range ballistic missiles,"[35] as a Defense Department fact sheet claims, the NMD could set the stage for a defensive-offensive weapons competition. Perhaps, as President Putin suggested, the cure could be worse than the disease.

Conclusion

In the final analysis, the spread of nuclear, chemical, and biological weapons may be the "greatest potential threat to global stability and security" since the darkest days of the Cold War.[36] However, it seems likely these weapons would be delivered using methods other than ICBMs, for reasons identified above. Alternative delivery methods such as aircraft, cruise missiles, ships, trucks, special operations troops, or terrorists would be less expensive than developing and deploying ICBMs and more reliable than long-range missiles. Moreover, non-missile delivery would circumvent the NMD, and some methods of employing weapons of mass destruction could be used covertly, thus minimizing, or entirely obviating, culpability and the threat of retribution. In order to avoid the miscalculations that led to the Sentinel deployment decision, there should be a clearer understanding about the ICBM threat to preclude the dangers suggested by Secretary McNamara.

Notes

1. Ambassador Alexander Vershbow, US Permanent Representative on the North Atlantic Council, "National Missile Defense: Political Implications," address, XVIIth International Workshop on Political-Military Decision-Making, Berlin, Germany, 3 June 2000, n.p.; on-line, Internet, 15 June 2000, available from http://usinfo.state.gov/topical/pol/arms/stories/00060508.htm.
2. Ibid.
3. Elaine Sciolino, "Clinton and Putin Fail to Close Gap on Missile Barrier," *New York Times*, 5 June 2000.
4. Secretary of Defense Robert S. McNamara, "Speech on Anti-China Missile Defense and U.S. Nuclear Strategy," address, editors of United Press International, San Francisco, Ca., 18 September 1967.
5. Donald R. Baucom, *The Origins of SDI, 1944-1983* (Lawrence, Kans.: University Press of Kansas, 1992), 27 and 34.
6. Interestingly, McNamara devoted considerable attention early in the speech to affirm that deterrence of nuclear aggression would continue to rely on strategic offensive forces, not missile defenses. Moreover, he cautioned that a "heavy" ABM system deployed throughout the United States would encourage the Soviets to build more offensive forces to nullify American defenses. Baucom, 39.

7. McNamara.
8. Ibid.
9. Opposition to Sentinel was rooted in several concerns. Some opposed deploying interceptors close to American cities, fearing explosions of the missiles themselves or their nuclear warheads. Others believed that deploying missile defenses near cities could make nuclear attacks against these areas more likely and that such a deployment might appear to be a "thick" system, thus precipitating an arms race with the Soviet Union. Finally, questions were raised about the potential cost of even a light ABM system relative to spending on domestic programs. Baucom, 39.
10. Colonel Stephen P. Moeller, "Vigilant and Invincible," *ADA*, May-June 1995, 40.
11. International Institute for Strategic Studies, *The Military Balance, 1977-1978* (London, Great Britain: International Institute for Strategic Studies, 1977), 52.
12. International Institute for Strategic Studies, *The Military Balance, 1993-1994* (London, Great Britain: International Institute for Strategic Studies, 1993), 152.
13. Regarding the cost estimate, see Charles Babington, "U.S. Set to Share Missile Defense Research," *Washington Post*, 1 June 2000. The Russian position on the US proposal is available in Deputy Secretary of State Strobe Talbott, press briefing, National Hotel, Moscow, Russia, 4 June 2000, n.p.; on-line, Internet, 15 June 2000, available at http://usinfo.state.gov/topical/pol/arms/stories/00060406.htm. The Chinese position is available in "China Warns Against Amending ABM Treaty," *USA Today*, 7 June 2000 and Kevin Platt, "China Threatens to Boost Nukes," *Christian Science Monitor*, 22 June 2000. For European concerns about the US proposal see, for example, National Security Advisor Samuel Berger, press briefing, Crowne Plaza Hotel, Berlin, Germany, 1 June 2000, n.p.; on-line, Internet, 15 June 2000, available at http://usinfo.state.gov/topical/pol/arms/stories/00061206.htm and Secretary of Defense William S. Cohen, news briefing, Sydow at the Haga Palace, Stockholm, Sweden, 12 June 2000, n.p.; on-line, Internet, 15 June 2000, available at http://usinfo.state.gov/topical/pol/arms/stories/00060108.htm
14. National Intelligence Council, "Foreign Missile Developments and the Ballistic Missile Threat to the United States Through 2015," September 1999, n.p.; on-line, Internet, 19 June 2000, available at http://www.cia.gov/cia/publications/nie/nie99msl.html.
15. Libya was identified earlier as a country of concern; however, it is excluded from the discussion because it is unlikely it will present a missile threat to the United States, since "it has made little progress acquiring or developing long-range missiles." See, Office of the Secretary of Defense, *Proliferation: Threat and Response* (Washington, D.C.: Government Printing Office, November 1997), 34.
16. International Institute for Strategic Studies, *The Military Balance, 1999-2000* (London, Great Britain: International Institute for Strategic Studies, 1999), 186 and 310.
17. National Intelligence Council.
18. Comment by Sha Zukang, "China Warns Against Amending ABM Treaty," *USA Today*, 7 June 2000.

19. Department of Defense, fact sheet, n.d., *National Missile Defense Program*, (Washington, D.C.: Ballistic Missile Defense Organization, External Affairs), 1.
20. Robert D. Walpole, "The Ballistic Missile Threat to the United States," statement, Senate Subcommittee on International Security, Proliferation, and Federal Services, Washington, D.C., 9 February 2000, n.p.; on-line, Internet, 19 June 2000, available at http://www.cia.gov/cia/public_affairs/speeches/nio_speech_020900.html.
21. National Intelligence Council.
22. Ibid.
23. Ibid.
24. Ibid.
25. Walpole.
26. National Intelligence Council and Walpole.
27. Walpole.
28. Michael L. Moodie, "The Chemical Weapons Threat," in *The New Terror: Facing the Threat of Biological and Chemical Weapons*, ed. Sidney D. Drell, Abraham D. Sofaer, and George D. Wilson (Stanford, Calif.: Hoover Institution Press, 1999), 15-16.
29. Dean A. Wilkening, "BCW Attack Scenarios," in *The New Terror: Facing the Threat of Biological and Chemical Weapons*, ed. Sidney D. Drell, Abraham D. Sofaer, and George D. Wilson (Stanford, Calif.: Hoover Institution Press, 1999), 88.
30. National Intelligence Council.
31. McNamara.
32. Ibid.
33. Ibid.
34. Department of Defense, 2.
35. Ibid.
36. White House, *A National Security Strategy for a New Century* (Washington, D.C.: Government Printing Office, 1999), 2.

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