RECONSIDERING NORTH KOREA'S STRATEGY

Despite nearly a decade of objectively worsening internal and external dynamics, North Korea continues to defy conventional wisdom. Under conditions that in most countries would precipitate major political upheaval, Kim Jong Il remains firmly in power. Nearly five years after the death of Kim Il Sung, eight years of consecutive economic contraction, famine, and progressively diluted alliances, structural integrity continues to be maintained. Contesting Kim's supreme reign and dominance of the North Korean polity is virtually unthinkable. From the outside looking in, and almost incredibly, North Korea seems to thrive on a spectrum of self-engineered crises. North Korea has demonstrated its ability to withstand severe pressures. And against nearly all odds, it has survived.

This basic supposition, i.e., that the Democratic People’s Republic of Korea (DPRK) continues to attach paramount importance to survival and has so far succeeded, is a necessary but insufficient condition in understanding North Korea’s strategic calculus. Why? Because equating North Korea’s fundamental national security strategy with regime or state survival hinders an objective reading of Pyongyang’s strategic objectives at three different, but interrelated, levels.
First, akin to explanations for the Soviet Union’s external behavior during the Cold War, such a view attaches undue importance to North Korea’s enduring siege mentality. Inherently offensive and highly destabilizing developments such as North Korea’s weapons of mass destruction (WMD) and robust ballistic missile programs should be understood in the context of North Korea’s profound sense of insecurity. In addition, while one cannot totally discount the military utility of Pyongyang’s WMD arsenal, actual employment of these systems is a dubious proposition. The principal reason behind North Korea’s WMD program, including its array of ballistic missiles, should be seen essentially as bargaining chips. Therefore, with the correct mix of incentives—diplomatic recognition by the United States and Japan, direct and institutionalized communication channels with Washington, concerted economic assistance, and even declaratory guarantees of survival—North Korea will be ultimately dissuaded from pursuing its WMD program.

Second, despite North Korea’s selective probes and challenges against South Korea, the United States, and even Japan, these are tactical and essentially defensive in nature. Even if North Korea wanted to, it doesn’t have the overall capability to inflict irreparable damage on the South. More significantly, the ROK-U.S. Combined Forces Command (CFC) has the ability to deter and defend a wide array of North Korean actions. The absence of sophisticated national technical means (NTM) and limited intelligence support from China and Russia compels the North to undertake a range of probes against the South and even Japan. In essence, while North Korea’s provocations should be carefully watched, they do not portend any fundamental shift in North Korea’s strategy vis-à-vis the South.¹

¹On June 22, 1998, a North Korean mini-submarine was accidentally caught in a fishing net in South Korean waters. The ROK Navy towed the submarine and when it opened the hatch, four crew members and five agents’ bodies were discovered. South Korea’s President stated that despite this incident, the government’s “Sunshine Policy” would remain unchanged. The Ministry of National Defense downplayed the affair as a “routine” North Korean mission and one unidentified senior official noted that the North was likely to continue to undertake similar probes since “human intelligence is the only way they’ve got to spy on us.” Shim Jae Hoon, “Kim the Cool,” Far Eastern Economic Review, July 9, 1998, p. 16. Barely 20 days after this incident, a midget submarine was detected and subsequently sunk by the ROK Navy on July 12. While the government responded more quickly to the second incursion, then Senior Secretary for Foreign and National Security Affairs, Lim Dong Won, said that Seoul would continue to be “flexible” in its dealings with the North. In neither case did South
Third, although the possibility of a North Korean collapse cannot be discounted, such a development is undesirable. Under the rubric of South Korea’s comprehensive engagement or “Sunshine Policy” toward the North, Seoul does not seek unification by absorption. That said, South Korea should place primary emphasis on buying time—for North Korea to undertake partial economic reforms, to persuade the North of the virtues of active engagement, and to formulate a more viable exit strategy. But the strategy of buying time suffers from a key conceptual weakness since it essentially fails to address what endstate lies at the end of buying time. In other words, if a reformed and strengthened North Korea emerges over time, what incentive does it have to accommodate ties with the South and the United States, in addition to giving up its WMD ambitions? As the Washington Post wrote in August 1998, “the danger was that the North Koreans were buying time themselves, taking advantage of U.S. generosity while pursuing their nuclear ambitions. . . . If North Korea is taking the ransom (fuel and food) and going ahead with its weapons program, then it becomes clear that North Korea is stringing America along and not the reverse.2 Or as the “Armitage Report” noted in March: The notion that buying time works in our [U.S. and South Korea] favor is increasingly dubious. (Emphasis added.) A growing body of evidence suggests that it is North Korea that is buying time to consolidate the regime, continue its nuclear weapons program, and build and sell two new generations of missiles, while disregarding the well-being of its 22 million people.3

**SOUTH KOREA’S PEACE OFFENSIVE AND THE SUNSHINE POLICY**

Supporters of the Sunshine Policy insist that the ROK is not giving up any of its traditional national security and defense assets in order to pursue comprehensive engagement with the North. Since the alternative to comprehensive engagement is a hardline policy,

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proponents insist that such options are always available if engagement fails. In other words, if the North ultimately rejects South Korea’s overtures and refuses to accept a comprehensive package of incentives jointly from the ROK and the United States, then South Korea as well as the United States (and even Japan) can and should apply alternative strategies and policies. Proponents also insist that comprehensive engagement is the only strategy that is acceptable to South Korea’s allies, friends, and neighbors. Specifically, assuming that the ROK pursues a hardline policy toward the North, such a policy will not be politically sustainable either in Washington or Tokyo over the long haul. In addition, there is very little chance that such a policy would be supported by China and Russia.

Finally, if North Korea is not going to respond positively to the Sunshine Policy there is little reason to believe that Pyongyang will change its overall policy toward South Korea or the United States once Seoul and Washington adopt hardline alternatives. As South Korean Foreign Minister Hong Soon-young recently wrote in *Foreign Affairs*, “South Korea aims to achieve peace and reunification methodically and gradually instead. This will take time—perhaps a long time—but it will be worth the wait. And it is the only viable course to pursue.”⁴ As a result, even if short-term dividends may be limited with no dramatic shifts in North Korean policy (such as a South-North summit meeting and significant progress based on the landmark 1991 South-North Basic Agreement), Sunshine Policy advocates argue that the pressure or onus is on the North. Specifically, they insist that North Korea’s overall bargaining power, political credibility, economic capability, and even military strength is considerably limited compared to South Korea’s. Despite North Korea’s show of strength through the August 1998 Taepo Dong I missile test, provocations against the South (and even Japan), and highly unrealistic demands such as $3 billion over a three-year period to freeze its ballistic missile program, supporters of the Sunshine Policy argue that these demands illustrate North Korea’s relative *weakness* rather than strength. In June 1998 prior to his state visit to Washington, President Kim stated in an interview with *The New York Times* that “As we stick to this tolerance on our part, with such a flexible

approach, then perhaps not in the near term but in the long run we’ll be able to see changes in North Korea’s attitude.”

In essence, the genesis of South Korea’s “win-win strategy” can be summarized as follows: While the ROK continues to confront a range of potential military threats from the North, these can be readily managed through existing ROK-US deterrence and defense assets. More important, since the primary objective is to deter war—virtually at all costs—the United States and the ROK have no other viable alternative.

THE LIMITATIONS OF ENGAGEMENT

Notwithstanding the positive attributes of comprehensive engagement, the Sunshine Policy has come under criticism on a number of fronts. First and foremost, detractors of the policy have argued that, while a strategy of engagement vis-à-vis the North could conceptually produce positive change, one has to assess both the validity of the core assumptions behind the Sunshine Policy and the domestic political environment in which the policy is being pursued. Those who have advocated alternative strategies and policies toward the North base their argument on the following points.

First, based on North Korea’s past record including its reactions to the Kim Dae Jung government over the last 16 months, there is very little evidence that suggests a significant thawing of North Korea’s position on core national security issues. If North Korea really wanted to engage with the South, Pyongyang should not have launched the Taepo Dong I missile in August last year; nor should it have sent mini-submarines and spy ships into South Korean and Japanese waters. Despite North Korea’s severe economic hardships, the fact remains that the DPRK continues to invest some 22 percent of its GNP on defense. Moreover, it is naïve to believe that the North


6The most recent incident occurred on June 9 when five KPA Navy patrol boats crossed into South Korean waters in the Yellow Sea. Although warning shots were not fired by ROK Navy patrol vessels, one patrol craft collided slightly with a North Korean ship.
will ultimately give up its ballistic missile program in addition to its WMD arsenals since they have only limited military value.

Second, the core weakness or shortcoming of the Sunshine Policy is that it provides no endstate other than coexistence with the North. Moreover, since the policy has ruled out the possibility of a North Korean collapse by stating categorically that the South does not seek unification by absorption, it is unrealistic and places too much of an emphasis on normative ideals.

Third, what are the benchmarks of success other than maintenance of the status quo? While supporters insist that it is too early to judge the success or failure of the Sunshine Policy, detractors point out that the policy fails to take into serious consideration alternatives that have to be pursued if it fails.

The pros and cons surrounding the efficacy of the Sunshine Policy or lack thereof are unlikely to be resolved anytime in the near future. The Kim Dae Jung government has placed significant political capital on the success of comprehensive engagement. On the diplomatic front, Seoul has emphasized trilateral policy coordination between the ROK, the United States, and Japan as the linchpin of the Sunshine Policy. While it may be too early to state whether the policy will ultimately work or will need to be substantially if not fundamentally revamped, the fact remains that at least for the time being, the Kim Dae Jung government is unlikely to significantly alter the basic premise of the Sunshine Policy.

One final point should be made in the context of the on-going debate over South Korea’s “peace offensive” to the North, namely, North Korea’s response. North Korea’s official pronouncements have been uniformly negative since Pyongyang has maintained that the Sunshine Policy seeks ultimately to destabilize the North in a revamped absorption policy. Just a few days after the North agreed to hold the second round of vice-ministers’ talks in Beijing in more than a year, for example, the official party newspaper, *Nodong Shinmun*, reported that:

> The leading forces of unification in South Korea are not even Communists but it is ludicrous for the “People’s Government” in the South to think that it can embrace North Korea when it can’t even embrace the core forces of unification within the South. . . .
The South Korean authorities should change themselves before they attempt to change others. The United States and Japan are not infinite providers of security. They must awaken from the delusions of U.S.–Japan leadership. Only death awaits those who attempt to struggle with fellow Koreans through the reliance on foreign powers under the banner of international cooperation.  

THE STRATEGIC FOUNDATIONS OF NORTH KOREA’S BALLISTIC MISSILE PROGRAM

If one chooses to perceive developments in North Korea through the Sunshine Policy prism, it stands to reason that one of the most tangible security threats in the post-Cold War era—North Korea’s protracted WMD ambitions—should not necessarily warrant critical concern. Proponents of the Sunshine Policy have argued, none more forcefully than President Kim, that patience will result in tangible results. The problem is not with engagement per se, but its underlying assumptions as noted above. Supporters of the Sunshine Policy argue that North Korea’s primary motivation for developing a range of ballistic missiles such as the No Dong I/II and the longer-range Taepo Dong I are threefold: (1) to offset North Korea’s own vulnerabilities in the face of robust ROK-U.S. deterrence and defense assets; (2) to earn much-needed foreign currency through missile exports; and (3) as a bargaining chip to secure political, security, and economic incentives from South Korea and the United States.

Nevertheless, the supposition that North Korea’s WMD program is driven not by offensive inclinations but primarily by defensive im-

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7 “Namjoson eui Poyong Jeongchek eul Haebu Handa” [Dissecting South Korea’s Embracement Policy], Nodong Shinmun, June 4, 1999, as reported in North Korea Today, June 5, 1999, pp. 2 and 5. The term “People’s Government” or “Government of the People” was coined by the Kim Dae Jung government to differentiate it from previous administrations, i.e., that it is the most democratic and the most populist government to gain power in South Korea. For its part, the Kim Young Sam government referred to itself as the “Civilian Government” or as the first nonmilitary government since 1961.

8 The Sunshine Policy was first enunciated after President Kim Dae Jung’s inauguration in February 1998. The policy contains three key guidelines: (1) to maintain a robust defense posture in response to possible North Korean provocations; (2) to discount the option of unification through absorption; and (3) to de-link economic cooperation and exchange from political conditions.
pulses misses several important points. To begin with, North Korea’s WMD activities and programs *predate* its accelerated economic downturn since the early 1990s and rising concerns surrounding regime survival. In other words, North Korea began work on its WMD program prior to the late 1980s in order to offset what it perceived as growing disparity with the South. Thus, while WMD capabilities gained increasing value as a survival mechanism going into the 1990s, North Korea always placed a very high value on the strategic utility of WMD. Historically, the U.S. air campaign against the North during the Korean War convinced Kim Il Sung of the necessity of developing comprehensive strategic capabilities, including ballistic missiles and WMD weapons, although North Korea’s nuclear weapons program probably did not begin in earnest until the latter part of the 1960s. That said, by the early 1960s, North Korea began to revamp its military strategy through the enunciation of the so-called “Four Great Military Lines” doctrine, including: (1) arming of the entire people; (2) fortification of the entire country; (3) the creation of cadres throughout the People’s Armed Forces; and (4) modernization of weapons systems.\(^9\)

Throughout the 1960s, Kim Il Sung tried to emulate North Vietnam’s politico-military strategy toward South Vietnam by stressing destabilizing operations against the South and to exploit fully the opportunities tendered by potential U.S. force reductions in the South. Nonetheless, inciting an indigenous “people’s revolution” in the South ultimately failed, and despite the withdrawal of the U.S. 7th Infantry Division from the ROK in 1971, the United States continued to retain its security commitment to the South. As the South Korean economy began to take off in the early 1970s, and particularly

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after Jimmy Carter decided in July 1979 to mothball his earlier pledge to incrementally withdraw U.S. ground troops, North Korea reviewed its overall strategic posture.10

With modernization of the ROK armed forces in the 1970s and 1980s through the Yulgok Program, North Korea’s strategic calculus changed. By the mid-1980s, coincident with worsening economic conditions, South Korea’s growing economic strength, robust ROK-U.S. relations, and sustained ROK force modernizations, North Korea began to accelerate work on its ballistic missile development and WMD programs. From the standpoint of grand strategy, Pyongyang’s capability to unify the peninsula by force became increasingly untenable as a viable military option. As one report recently noted, “the combination of South Korean strength and U.S. support means that Pyongyang cannot reunify the peninsula on its own terms militarily.”11 Nonetheless, this was the primary motivation for developing WMD capabilities, since it would provide the DPRK with both a significant force multiplier and new strategic buffer zone (in the sense of constraining ROK and U.S. deterrence and defense dynamics). Therefore, notwithstanding the utility of WMD arsenals as a key survival mechanism, North Korea’s WMD program was begun well before regime survival became a critical issue.

Some defense analysts have argued that while North Korea’s ballistic missile and WMD capabilities should not be ignored, neither should South Korea overestimate their intrinsic military repercussions. For instance, after the successful launching of the medium-range missile on August 31, 1998, some analysts argued that the primary objective of North Korea’s missile launch was to celebrate Kim Jong Il’s rise as Chairman of the National Defense Committee and that, at any rate, the range of the missile indicated that Japan, rather than South

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Emerging Threats, Force Structures, and the Role of Air Power in Korea, was the principal target. Such views, however, are simply wrong.

Although it remains uncertain whether North Korea will actually employ its WMD arsenal in warfare, the fact that South Korea has to take into serious consideration the WMD factor in current and future defense planning scenarios already provides the North with a strategic edge beyond its general purpose forces. Moreover, North Korea’s WMD capabilities, in particular its ballistic missiles, could severely constrain U.S. reinforcement efforts. If North Korea threatens to target U.S. bases in Japan or air fields and harbors in Japan, it could retard or impede personnel and material reinforcements into South Korea. Additionally, if North Korea launches a ballistic missile attack on South Korean air fields and harbors, it could seriously impede Flexible Deterrence Options (FDO) operations by the United States. The argument has been made that even if the North uses ballistic missiles, the accuracy or circular error probable (CEP) of the No Dong I (about 1 km) is such that it would not be able to undertake surgical air strike missions.\textsuperscript{12}

But this point is moot. Even if a limited number of SCUD-C or No Dong I missiles are launched on Seoul and other key cities and industrial cites, there would be immediate psychological consequences in the South. Moreover, a concerted ballistic missile attack against Seoul will have tremendous repercussions, regardless of the accuracy of the missiles. Finally, any use of WMD by the North will place immediate pressure on the Korean and American National Command Authorities (NCA) to respond in-kind with the very real likelihood of escalation, including the potential release of nuclear

\textsuperscript{12}For example, Shunji Taoka has argued that a “very poor” CEP of the SCUD missiles, combined with their limited payload means that “the tactical value of SCUDS [are] even lower than jet trainers.” He also argues that based on the Iraqi launch of SCUDs during the Gulf War and resultant public reactions in Tel Aviv and Riyadh, a North Korean SCUD attack on Seoul would not result in widespread panic. Shunji Taoka, “Air Forces of the Two Koreas: A Comparative Analysis,” paper presented in the “First International Conference on Air Power in 21st Century Korea,” coorganized by the Center for International Studies, Yonsei University, the Institute of East and West Studies, Yonsei University, and the Pacific Century Institute, May 22–23, 1998, pp. 86-90.
Coping with the North Korean Missile Threat

While a more detailed overview of North Korea’s ballistic missile program and its cumulative impact on Northeast Asia and South Korea is provided below, North Korea’s emphasis on WMD capabilities also coincides with changing military dynamics in the region. For North Korea, reliance on the former Soviet Union and China for advanced military technologies and weapons systems was a double-edged sword. While Pyongyang had no choice but to rely on military support from its two major patrons, Kim Il Sung always believed that comprehensive self-reliance, or Juche, should also be applied to the military sector. Although North Korea is believed to have acquired the services of a number of Russian technicians following the dissolution of the Soviet Union, by and large self-reliance has been a driving factor behind North Korea’s military modernization strategy. Lessons from the Gulf War reinforced this emphasis. As Desert Storm aptly demonstrated, modern warfare can no longer be conducted primarily on the basis of conventional forces. But in order for the North to reap the benefits of RMA technologies, it would have no choice but to divert critical resources to RMA R&D. However, North Korea doesn’t have the technological nor financial capabilities to develop core RMA systems and has therefore opted for the next best alternative: acquiring weapons of mass destruction and associated delivery systems.

Thus, North Korea’s ballistic missile program and its WMD ambitions have always been based on multiple motivations. Using WMD to boost regime survival is an important facet of North Korea’s overall WMD program but it is only one of several factors. Indeed, one could argue that if North Korea’s primary motivation for pursuing an aggressive WMD program lies in enhancing regime survival and strengthening its diplomatic bargaining position, a far better way would be to enact much needed economic reforms. To

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13There is no consensus on the current and projected state of North Korea’s potential nuclear weapons program. The 1994 nuclear accord was put in place to “freeze” North Korea’s nuclear program although of late, new concerns have surfaced such as the discovery of new underground facilities that could be used for nuclear weapons development. For the purposes of this paper, the basic assumption is that while North Korea is not a nuclear weapon state, it has the capability to develop a small number (3–4) of nuclear warheads.
the contrary, even in the midst of pronounced economic downturn, “Pyongyang continues to invest scarce resources in developing and maintaining its military forces, including its chemical and biological warfare and missile programs.” In sum, North Korea’s WMD and ballistic missile arsenal should be seen in the context of a comprehensive strategy that compresses political, military, and diplomatic objectives. To argue otherwise runs counter to decades of North Korean actions and fundamental strategic weltanschaung.

ENHANCING AIR CAPABILITIES IN THE REGIONAL CONTEXT

Although it is difficult to project the types of forces that will emerge in East Asia over the next two to three decades, a number of regional countries are likely to emphasize varying levels of strategic air power technologies including RMA-driven weapons systems. Among the nonnuclear states in the region, Japan has the most advanced defense R&D infrastructure, followed by South Korea, Taiwan, and selected ASEAN countries. In the short to medium term, or until the disappearance of the North Korean threat, however, the ROK and the regional powers will continue to pay close attention to North Korea’s overall WMD capabilities. The primary reason why North Korea’s WMD and ballistic missile program warrant continuing high-level attention is not only because it could seriously disrupt stability on the peninsula, particularly if North Korea implodes or collapses, but because it has opened a new Pandora’s box in coping with military threats from the North.

For the ROK, its principal security concerns in the post-unification era are likely to focus on the long-term force modernization postures of China’s PLA, especially its air force and navy, a resurgence of Russian forces (particularly naval) in the Far East, Japan’s potential acquisition of more advanced weapons systems, and the level of U.S. strategic engagement in the region. Other factors will also be taken

15 Compared to its Cold War standing, the Russian armed forces have atrophied significantly across the board and it will take a significant amount of time before Russia’s general purpose forces are able to regain their pre-collapse capabilities. Nonetheless,
into consideration, such as the need for information-dominant systems to meet multiple information warfare challenges and enhanced strategic and tactical intelligence platforms. Over the long run, air and naval force projection capabilities, battlespace denial capabilities (such as submarines), and advanced strategic conventional technologies are likely to emerge as key sources of concern, since all of the major regional players have, or will acquire, the ability to acquire and deploy more advanced force projection capabilities.

Clearly, if any of the currently nonnuclear states of East Asia embark on a nuclear or a major ballistic missile program, such a development will have significant repercussions. North Korea already can be considered to be a “virtual nuclear weapon state,” although it is difficult to verify whether North Korea has succeeded in developing a small number of nuclear warheads. If Pyongyang continues to emphasize WMD capabilities as a key element of its military strategy regardless of international pressure, South Korea and Japan could begin to seriously consider their own WMD program including delivery vehicles. To date, and into the foreseeable future, however, it is highly unlikely that either Japan or South Korea would begin a concerted WMD program, particularly since these two states form core security alliances with the United States. But any widespread proliferation of WMD technologies in the region with advanced delivery systems would, at a minimum, have the following repercussions: (1) it would encumber, if not significantly constrain, U.S. power projection operations including rapid reinforcements in an acute crisis; (2) it would result in increased vulnerability among states that do not have the ability to field such systems; (3) it would weaken U.S. conventional deterrence and defense capabilities and increase the cost of mounting conventional operations against states possessing WMD capabilities; and (4) it would result in increased pressure toward even greater horizontal WMD proliferation.16

Russia still retains its status as the second most powerful nuclear state with significantly advanced military R&D capabilities. Although it will take tremendous financial commitments coupled with overall political and economic stability, Russia’s force projection capabilities cannot be ignored.

To the extent that an increasing number of East Asian forces are likely to introduce various elements of RMA technologies and systems, the fundamental “strategic space” in which these forces will operate over the next two to three decades cannot but also change. North Korea’s robust ballistic missile program—including the deployment of the 500-km range SCUD-C, the ongoing deployment of the 1,000-km-plus range No Dong I missile, and the successful launching of what is believed to be the 1,500-km range Taepo Dong I missile—attests to North Korea’s short- and medium-range ballistic missile capability. North Korea also deploys 20 SA-5 SAMs that can reach nearly one-half of South Korea’s air space, not to mention the 50–70-km range Frog-5/7 SSMs and an array of heavy artillery deployed across the DMZ.

Beyond the threat posed by North Korea’s WMD arsenal, a larger strategic change lies over the horizon. Throughout much of the Cold War, no East Asian country, other than China after it became a nuclear power, had the capability to inflict significant military damage on another state based on significant air power, naval platforms or ballistic missiles. Even in the case of China, while nuclear weapons provided it with a “great power” status, its nuclear capability was far behind that of the United States and the Soviet Union. It did not have ICBM capabilities during the Cold War, although it currently has 17 ICBMs (7 DF-5 and 10 DF-4). While the current air power inventory of the Northeast Asian militaries varies quite significantly from country-to-country, combat aircraft, helicopters, SAMs, and ballistic and cruise missiles have already emerged as important regional airpower modernization components. Except for China and North Korea, the overall missile inventory in Northeast Asia (particularly as it applies to Japan, South Korea, and Taiwan) doesn’t pose a critical or an acute threat. For instance, Mongolia has only a limited SAM arsenal (SA-7). In the case of South Korea, it currently has ASMs, AAMs, and SAMs but no SSMs, while Japan has some 70 Type-88 coastal SSMs, 120 Patriot SAMs, and ASMs and AAMs.

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18 For a more detailed review of Northeast Asia’s missile capabilities, refer to The Military Balance, 1997–1998 (London: International Institute for Strategic Studies, 1997). Since the North Korean nuclear weapons program surfaced as a major issue in the early 1990s, significant literature has appeared on the state of North Korea’s nu-
Clearly, C4I integrity, target acquisition and surveillance systems, flight time of pilots, the robustness of air defense assets, and information-dominance as well as many other factors have to be taken into consideration in assessing air power capabilities. In the case of North Korea and China, modernization of their fixed-wing aircraft faces major budgetary and technological constraints. Additionally, the average annual flight time for North Korean pilots is estimated to be some 30 hours, compared to nearly 200 hours for the ROKAF (or near the NATO level) and between 170 and 200 hours for the JASDF. While North Korean pilots are believed to receive extensive simulation training, the fact that its pilots fly less than four hours per month means that its overall air combat capabilities have diminished significantly over the last decade. In addition, Primary Authorized Aircraft (PAA) data or similar figures for Northeast Asia’s air forces suggest that the Chinese and North Korean air forces confront more serious upgrade, modernization, and maintenance challenges than the more advanced air forces such as the ROKAF, the JASDF, and most certainly, the USAF.19

Nonetheless, although there are disparities in the respective air power capabilities of the key regional actors, they all are likely to continue to modernize their air forces, including selective power projection systems. In the long run, the rationale for maintaining a large ground force by most of the East Asian powers is likely to decrease. To be sure, the Korean peninsula remains an exception, given the positioning of the forces along or near the DMZ and the operational requirements stemming from attrition warfare. So long as a credible threat remains, the ROK is not going to restructure its forces with a greater emphasis on air and naval assets. But in the post-unification era, defense planning has to take into consideration clear and other WMD programs. See Leonard S. Spector and Mark G. McDonough, Tracking Nuclear Proliferation (Washington, D.C.: Carnegie Endowment for International Peace, 1995), pp. 103–107 and Robert D. Blackwill and Albert Carnesale, eds., New Nuclear Nations: Consequences for U.S. Policy (New York: Council on Foreign Relations, 1993), pp. 26–28.

19As an example, the PAA counts reflect what the USAF’s inventory can actually utilize in terms of operational force structure. To field a USAF wing of 72 PAA for 25 years actually requires a total inventory of about 130 aircraft since at any one time, some airframes are in maintenance, some are being used for testing and training, and two dozen are needed for attrition replacement. Christopher J. Bowie, et al., Trends in the Global Balance of Airpower (Santa Monica, CA: Project Air Force, RAND, 1995), p. 8.
a range of new operational requirements including reduced ground forces.

Similarly, in the short term, China is highly unlikely to downgrade the operational value of its ground forces given its ongoing conflict with Taiwan. Indeed, one of the key areas that the PLA is seeking to increase is its amphibious forces. While the “strategic alliance” announced by President Jiang Zemin and President Boris Yeltsin in 1997 was a significant improvement in Sino-Russian relations, not to mention substantial progress in overcoming border disputes, China will continue to perceive a need to maintain robust ground forces—not only with respect to the Sino-Russian border but to the more than ten borders it shares with various neighboring states.

Nevertheless, China too is not going to ignore air power modernization. While the PLA Air Force (PLAAF) has a huge inventory of some 4,000 aircraft, it is perhaps the least modernized service, especially compared with its neighboring countries. For example, the 3,000 J-6s (the Chinese version of the Soviet MiG-19s) that are the backbone of the PLAAF are based on 1950s and 1960s technologies.\footnote{Kim Tae-Ho, “New Trends of Air Force Build-up in East Asia: Comparison of China, Japan, and Taiwan,” paper presented in the “First International Conference on Air Power in 21st Century Korea,” coorganized by the Center for International Studies, Yonsei University, the Institute of East and West Studies, Yonsei University, and the Pacific Century Institute, May 22–23, 1998, pp. 17–18.} Given the current Chinese strategic emphasis on “limited local wars,” rapid mobility and firepower for border contingencies are likely to be stressed by the PLAAF. The key problem, however, is that while the PLA recognizes the need to upgrade its power projection capabilities, particularly naval, air, and ballistic missile capabilities, there is a significant gap between its current aircraft inventory and future doctrinal and operational requirements. For this reason, air force modernization has received a high priority in China’s foreign weapons and technology acquisitions, especially those from Russia but also from Israel and other sources.\footnote{Ibid., pp. 18–19.} The perceived need for more advanced air power projection capabilities stems largely from intra-regional features, such as the declining likelihood of large-scale ground wars (with the notable exception on the Korean peninsula) and the corresponding
shift towards overcoming gaps imposed by geography.\textsuperscript{22} Although these two factors can be construed as necessary conditions for acquiring more advanced power projection capabilities, they are not, strictly speaking, sufficient conditions.

**NORTH KOREA'S BALLISTIC MISSILES: STRATEGIES AND IMPLICATIONS**

For nearly three decades, North Korea has emphasized the development and sale of ballistic missiles and in that period, North Korea has managed to successfully develop, test and partially deploy medium- and long-range missiles.\textsuperscript{23} North Korea’s missile program began when it became involved in a Chinese program to develop the Dongfeng 61, a 600-km range ballistic missile in the mid-1970s.\textsuperscript{24} This program was ultimately aborted, but the North Koreans continued to actively pursue SCUD B technology to create a basis for their own in-house ballistic missile program. In 1981 North Korea received a small number of SCUD Bs from Egypt and in the ensuing three years it strived to reverse engineer the system; in 1984 it first flight tested the SCUD Mod A (a copy of the SCUD B).\textsuperscript{25}

As the August 1998 Taepo Dong I test launch illustrated, North Korea has attained significant know-how. “That launch demonstrated some important aspects of ICBM development, most notably multiple-stage separation. While the [U.S.] intelligence community expected a TD-1 launch for some time, \textit{it did not anticipate} that the missile would have a third stage or that it would be used to attempt to place a satellite in orbit.” (Emphasis added.)\textsuperscript{26} To be sure, the North still faces problems with the third stage, so it will take time before it is able to develop ICBM capability (in ranges in excess of 5,500 km); but the test amply showed North Korea’s inherent long-range ballistic missile capability.

\textsuperscript{22}Tellis, Op. Cit., p. 61.
\textsuperscript{23}\textit{Proliferation: Threat and Response}, p. 8.
\textsuperscript{25}Ibid.
The fact that North Korea has been working on long-range missiles is not a recent or surprising development. According to testimony given by two former North Korean officials, “if war breaks out on the Korean peninsula, the North’s main target will be U.S. forces based in the South and in Japan” and Kim Il Sung ordered a crash missile program as early as 1965 to develop missiles that could “fly as far as Japan.”27 The two North Korean defectors were former KPA Col. Choi Joo-hwal and former diplomat Ko Young-hwan. In testimony before a Senate Subcommittee, they testified that precision strike capability was not the main objective since North Korean missiles have been built to impact on a given target range such as U.S. bases in South Korea or Japan. Choi testified that the KWP Central Committee oversees the Second Economic Committee, which has eight General Bureaus to produce rockets and chemical weapons. Precise figures of deployment were not given by either Ko or Choi. In addition, Ko stated that North Korea’s missile exports are handled by the Yangaksan Trading Company, the Changkwang Trading Company under the 2nd Economic Committee, the 15th Bureau in the Ministry of the People’s Armed Forces (MPAF), and the Maebong General Bureau (the Maebong Trading Company) in the General Staff of the KPA. All told, an official at the Maebong General Bureau reportedly told Ko that North Korea earned about US $1 billion annually from missile exports to Syria, Egypt, Libya and Iran. Ko also testified that North Korea also exports Chinese missiles such as the Silkworm antiship cruise missiles (ASCMs) as middlemen with “enormous” commissions.28

In June 1998, just two months short of the August Taepo Dong I test, North Korea announced that it would continue to develop, test, and export ballistic missiles. This was the first time that North Korea officially acknowledged its missile exports to the Middle East. The official North Korean press agency, KCNA, reported that “if the United States really wants to prevent our missile export, it should lift the economic embargo as early as possible and make a compensation for


the losses to be caused by discontinued missile export.” North Korea may have been motivated to acknowledge its missile sales in an effort to encourage bargaining with the United States and South Korea, in addition to the short-term goal of disrupting, to the extent possible, President Kim’s slated visit to Washington in June. Tables 10.1 and 10.2 illustrate North Korea’s WMD and ballistic missile arsenal based on available open sources.

The test launching of the Taepo Dong I created widespread concern in Seoul, Washington, and Tokyo, although Japan’s initial reaction was much sharper than South Korea’s. Japan was outraged that a part of the missile flew over Japanese territory and immediately took retaliatory steps. Tokyo halted food and other aid to

<table>
<thead>
<tr>
<th>Table 10.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Korean NBC Weapons and Missile Programs</td>
</tr>
<tr>
<td>Nuclear</td>
</tr>
<tr>
<td>Chemical</td>
</tr>
<tr>
<td>Biological</td>
</tr>
<tr>
<td>Ballistic missiles</td>
</tr>
<tr>
<td>Other means of delivery</td>
</tr>
</tbody>
</table>


Table 10.2
North Korea’s Missile Characteristics

<table>
<thead>
<tr>
<th>Class</th>
<th>Name (Alternate Names)</th>
<th>Max. Range (km)</th>
<th>Warhead (kg)</th>
<th>Stages</th>
<th>Length (m) [a]</th>
<th>Diameter (m)</th>
<th>Weight (tonnes)</th>
<th>DPRK IOC [b]</th>
</tr>
</thead>
<tbody>
<tr>
<td>RBMS</td>
<td>SA-2/ HQ-2 SSM</td>
<td>150–200</td>
<td>190</td>
<td>2</td>
<td>10.7</td>
<td>.65/.5</td>
<td>2.287</td>
<td>1976</td>
</tr>
<tr>
<td></td>
<td>DF-6I</td>
<td>600</td>
<td>1,000 [c]</td>
<td>1</td>
<td>9.0</td>
<td>1.0</td>
<td>6.0</td>
<td>n.a.</td>
</tr>
<tr>
<td></td>
<td>SCUD B (R-17E)</td>
<td>300</td>
<td>1,000</td>
<td>1</td>
<td>11.164</td>
<td>.884</td>
<td>5.86</td>
<td>1981</td>
</tr>
<tr>
<td></td>
<td>Hwasong 5 Prototype</td>
<td>300</td>
<td>1,000</td>
<td>1</td>
<td>11.164</td>
<td>.884</td>
<td>5.86</td>
<td>1984</td>
</tr>
<tr>
<td></td>
<td>Hwasong 5 [d] (SCUD Mod. A)</td>
<td>320–340</td>
<td>1,000</td>
<td>1</td>
<td>11.164</td>
<td>.884</td>
<td>5.86</td>
<td>1985</td>
</tr>
<tr>
<td></td>
<td>Hwasong 5 [d] (SCUD Mod. B, SCUD B)</td>
<td>500</td>
<td>770 [e]</td>
<td>1</td>
<td>11.3</td>
<td>.884</td>
<td>5.93</td>
<td>1989</td>
</tr>
<tr>
<td>RBMM</td>
<td>No Dong (No Dong I, Rodong 1, SCUD Mod. D, SCUD D)</td>
<td>1,350</td>
<td>1,200 [f]</td>
<td>1</td>
<td>17.4</td>
<td>1.32</td>
<td>16.25</td>
<td>1997</td>
</tr>
<tr>
<td>RBMI</td>
<td>Taepo Dong I</td>
<td>1,500–2,200</td>
<td>700–1,000</td>
<td>2</td>
<td>27.3</td>
<td>(16.3/1)</td>
<td>1.32/ .884</td>
<td>20.4</td>
</tr>
<tr>
<td></td>
<td>(Daepo Dong I, No Dong II, SCUD X, SCUD Mod. E, Rodong 2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CBMI</td>
<td>Taepo Dong I SLV</td>
<td>4,000 [h]</td>
<td>50–100</td>
<td>3</td>
<td>27.9</td>
<td>(16.3/8. 1/3.5)</td>
<td>1.32/ .884/ .884</td>
<td>19.9</td>
</tr>
<tr>
<td></td>
<td>Taepo Dong II (Daepo Dong 2, No Dong III)</td>
<td>4,000–6,000</td>
<td>700–1,000</td>
<td>2</td>
<td>35.4</td>
<td>(18/17.4)</td>
<td>2.4/ 1.33 [j]</td>
<td>69.4</td>
</tr>
</tbody>
</table>
### Table 10.2

**Continued**

Notes: Figures for all DPRK-produced systems are based upon the best “open source” information currently available and should be regarded as provisional.

[a]Figures are for first and second stages, respectively.

[b]DPRK IOC: Initial operational capability. The DPRK places missiles systems into service decidedly earlier in their development phase than do most other nations.

[c]The PRC planned a domestic version with a 1,000-km range and a 500 kg nuclear warhead.

[d]Hwasong translates to Mars.

[e]Several sources suggest that the Hwasong 6 warhead weighs 700 kg.

[f]Warhead weight is believed to be between 1,200 and 1,500 kg. This estimate is based upon Iranian statements that the Shahab 3 warhead “. . . can carry at least 1,200 kilos of explosives . . .” The Shahab 3 is essentially a direct copy of the No Dong.

[g]Earlier range estimates were 1,500–2,000 km.

[h]The best information currently available suggests that during the recent Taepo Dong I SLV launch the payload, or debris from the payload, traveled approximately 4,000 km. When employed as a ballistic missile, a space launch vehicle (SLV) capable of placing a 100-kg payload into low earth orbit (LEO) is theoretically capable of delivering a 200-kg warhead to a range of approximately 10,000 km. This is assuming a launch trajectory due east.

[i]These figures represent a missile that is constructed of an entirely new first stage that is 18m in length and a second stage consisting of a modified No Dong. Previously published estimates have suggested a total length of 32m. The first stage being 18m and the second stage 14m.

[j]If the first stage is composed of three No Dong engines the diameter would be closer to 2.8m

The test launching of the Taepo Dong I created widespread concern in Seoul, Washington, and Tokyo although Japan’s initial reaction was much sharper than South Korea’s. Japan was outraged that a part of the missile flew over Japanese territory and immediately took retaliatory steps. Tokyo halted food and other aid to North Korea and also decided to suspend normalization talks although they were already broken off by the North Koreans. Japan’s Self Defense Forces sent three naval vessels and P3-C patrol aircraft. Prime Minister Obuchi stated that “the missile launching concerns not only the security of Japan but also the whole of Asia.”30 While North Korea announced a few days after the missile test that it was a satellite and subsequent analysis by U.S. analysts indicated that a satellite was probably launched but failed to orbit successfully, it nevertheless revealed North Korea’s significant progress in the development of long-range missiles.31

In contrast to Japan’s surprisingly speedy response, the South Korean government, other than expressing outrage and shock, did not really take any retaliatory actions. Then Minister of Defense Chun Yong Taek stated that “we will respond forcefully through the cooperative efforts of the ROK, the United States and Japan” and that the national security council would review other steps.32

In the aftermath of the test, officials in South Korea and abroad expressed concern about the possibility of accelerated development of the longer-range Taepo Dong II. Analysts have stated that the Taepo Dong II has similar characteristics as the Chinese Dongfeng-3 (CSS-2) with a range between 3,500 and 6,000 km. These estimates, if true,

31Various explanations have been given for North Korea’s missile test including the celebration of Kim Jong Il’s official elevation as “Great Leader.” What was interesting was that many analysts in Seoul and abroad, while recognizing the dangers posed by North Korea’s ballistic missiles, still continued to perceive the launch as essentially non-threatening. For example, Leon Sigal wrote in November 1998 that “the launch was more likely an unsuccessful attempt to mark Kim Jong Il’s formal accession to power by boosting a small satellite into space than a brazen act of intimidation aimed at Japan. Over reaction to the test will impede diplomacy, which is the most promising way to curb Pyongyang’s missile program.” Leon V. Sigal, “For Sale: North Korea’s Missile Program,” *East Asian Security*, http://www.nyu.edu/globalbeat/asia/Sigal111198.html.
mean that North Korean missiles have the potential to target the Aleutian islands and parts of Alaska. However, debate continues on whether North Korea has the ability to develop, test and ultimately deploy the Taepo Dong II. Indeed, some have argued that the primary reason behind North Korea’s missile program is to essentially negotiate it away at a price based on three points: (1) North Korea has been engaged with the United States to discuss curtailing its program in return for some type of compensation; (2) North Korea was engaged in similar negotiations with Israel in 1992–1994 and almost reached a deal but U.S. pressure on Israel stopped the deal; and (3) as the Agreed Framework of 1994 demonstrates, North Korea is able to negotiate a major WMD program.33

Nevertheless, such an assessment does not take into consideration the underlying strategic motivations behind North Korea’s missile program. If North Korea was principally interested in negotiating away its missiles, it is very doubtful whether it would have begun work on its program nearly three decades ago. Clearly, objectives may change under different circumstances. But neither Seoul nor Washington is likely to buy off North Korea’s ballistic missiles. In previous U.S.–North Korea missile talks, Pyongyang has demanded $1 billion each year for up to three years to compensate for its export sales to the Middle East. Officials estimate that North Korea’s missile sales may have generated significant earnings in the late 1980s to the early 1990s but that it has averaged only about $100 million since 1996–1997. In the latest round of talks held in Pyongyang from March 29–April 1 (the fourth since talks began in 1996), both sides were unwilling to give up their basic positions.34

The South Korean government continues to hope that North Korea will ultimately accept a comprehensive package proposal that has been transmitted to the North. One cannot discount such a possibility, but in all likelihood Pyongyang is unlikely to accept a package deal. Why? Because its WMD and ballistic missile programs offer North Korea the best opportunity to buy time in order for the regime to consolidate its hold on power, to receive additional foreign aid,
and to prevent a deterioration in the overall “correlation of forces”
between the South and the North. According to a South Korean re-
port in March 1999, at least four missile-producing factories have
been confirmed to be in operation in the North with the ability to
produce more than 100 SCUD C missiles annually.35 In addition, a
South Korean intelligence official stated that 10 missile launch sites
had been confirmed in the North with two new bases that were un-
der construction and that three sites appear to be aimed at Japan. If
these reports are true, North Korea’s ballistic missile program can be
understood only in the context of a comprehensive strategic policy.
North Korea’s primary strategic utility stems from its ability to
threaten the political, economic, and military integrity of the ROK. If
North Korea willingly defangs itself, there is little or no incentive for
the ROK or the United States to take North Korea seriously.

SUMMARY

The ROK, the United States, and Japan continue to grapple with the
advent of North Korea’s ballistic missiles, although each have con-
trasting interests and approaches. For the United States, North Korea
stands out as the principal proliferator in the Third World in addition
to other outstanding threats posed by its WMD programs. An active
counter-proliferation policy such as theater missile defense (TMD)
has been pushed as one response to the threat posed by North
Korean missiles in addition to China’s growing missile arsenal, par-
ticularly vis-à-vis Taiwan. Nonetheless, South Korea has decided not
to participate in a TMD program on the basis that the more serious
threat stems from North Korea’s long-range artillery that is poised
along the DMZ. The current government’s official position is that
South Korea’s mountainous terrain, the proximity of Seoul to the
DMZ, and diplomatic concerns mean that participation in a TMD
system is premature and perhaps even imprudent. For its part, Japan
has already been engaged in TMD architectural studies, although it
remains to be seen how far Tokyo is willing to commit financial re-
sources into a comprehensive TMD system.

35Lee Sung-yul, “North Korea Operates at Least 4 Missile Factories, 10 Launch Sites,
For the ROK, North Korea’s missile threat is not a tactical concern, although the government has continued to emphasize the importance of not “over inflating” the missile issue for fear that it could derail efforts to achieve a breakthrough in South-North relations. Such a view, however, is both myopic and wrong. Although South Korea doesn’t have the technological capability or the financial resources to participate more actively in a TMD system, at a minimum, the ROK should procure Patriot SAM or equivalent systems. At the same time, the ROK should expedite discussions with the United States in order to ensure that while the ROK will abide by the provisions of the MTCR, Seoul is no longer bound by the bilateral understanding that expires at the end of 1999. South Korea has the right to develop its own ballistic missiles within the confines of the MTCR in order to have offensive deterrence capabilities against an array of North Korean missiles. Bargaining or negotiating the North Korean missile threat is a policy option that is unlikely to result in tangible benefits since North Korea’s WMD program lies at the core of its ongoing efforts to create a Kangseung Daeguk or “Strong, Great Nation” under the tutelage of Kim Jong Il.

In the final analysis, North Korea’s ballistic missile program cannot be divorced or separated from the central characteristics of the regime or its fundamental strategic objectives. It could be argued that if that were the case, North Korea would not have agreed to a freeze in its nuclear weapons program. But it is critical to remember that the Agreed Framework is part of a long-term process with as yet uncertain outcomes. Unless and until the North Korean regime significantly alters its strategic goals toward the ROK, Japan, and the United States, it remains doubtful whether engagement and a package deal will result in a breakthrough. At its heart, North Korea’s ballistic missile programs, like its WMD ambitions, are reflective of the regime’s deeply ingrained hostility toward South Korea. Unless and until this basic dimension changes, the ROK has to continue to live under the threat of North Korea’s ballistic missiles.