

CHAPTER 1

PLANNING FOR A PEACEFUL KOREA: A REPORT OF THE KOREA COMPETITIVE STRATEGIES WORKING GROUP

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With the major changes that Korea has seen in the last 6 months, a natural question is whether or not there really is any need to develop a new long-term Korea strategy. Aren't things going well enough?

Certainly, the contrast of events before and after June 2000 is striking. Despite years of rhetorical acrimony against South Korea and the United States, the two Kims met in June, and Kim Jong Il agreed that the U.S. presence in South Korea was useful. In January, Kim Jong Il threatened to launch another new long-range missile that could hit the United States, the Taepo Dong II. Yet in October, he offered to end all further development of such missiles in exchange for U.S. assistance in launching peaceful North Korean satellites. Earlier this year, North Korean military training activities reached record levels, yet this fall saw the first series of high-level military-to-military talks on threat reductions between North and South Korea. North Korea, meanwhile, has sought admission to the World Bank, has normalized relations with Italy and Australia, and is seeking to do the same with key members of the European Union.

One cannot ignore these events. Yet, recognizing the improved atmosphere they have wrought begs the question of why they have taken place and continue to occur. Is it because the North Korean leadership believes their country can tolerate more political and cultural infiltration than

they thought it could before? Or is North Korea simply engaging, as it has before, in strategic deception aimed at placing the United States, South Korea, and Japan in some new form of diplomatic disadvantage? North Korea's tactics have changed, but has it changed its strategic goals? Is the North abandoning its aim of perpetuating its peculiar brand of cult communism? Has it begun to pursue more moderate military goals?

Unfortunately, with the possible exception of the North Korean leadership, nobody knows for sure. Even South Koreans are debating the merits of their new Sunshine policy. Opposition party figures argue that South Korea should return to the diplomacy of reciprocity. Kim Dae Jung's supporters, meanwhile, do not claim that their policy has succeeded in turning the North away from its hostile, tyrannical ways. They argue only that over time, their concessionary diplomacy toward the North will help secure such change.

This, then, suggests that the United States and its East Asian allies will have to hedge their bets. There may be cause for optimism. But progress on North Korean strategic weapons proliferation, military intimidation, human rights abuses, and the implementation of prior agreements must still be pursued, much as they were before—with planning and a good deal of vigilance.

Overview.

This report is the result of 2 years of planning, over a year's worth of commissioned research, and the participation of over 40 East Asian and weapons proliferation experts and policymakers from Capitol Hill and the Executive Branch.

What makes it different is its use of competitive strategies analysis. Instead of focusing on current events, the working group used competitive strategies analysis to anticipate the challenges and opportunities the United

States and its East Asian allies would face regarding the Korean Peninsula over the next 10 to 20 years. Rather than focus first on how the United States and its allies might cooperate with North Korea, the group reviewed the competing aims and strategies North Korea and others might have regarding the Peninsula's future.

Finally, the group tried to develop alternative long-term strategies that would do more than address current weaknesses in U.S. and allied efforts to secure peace in the region. In specific, the group tried to propose how the United States and its allies might leverage their comparative strengths in new ways against the enduring weaknesses of North Korea and other competing actors in East Asia. The idea here was to first discover what peaceful competitions the United States and its allies might engage in and then to win those competitions in a manner that would undermine Pyongyang's most offensive behavior.

The group offered three specific long-term recommendations:

First, the United States and its allies should do more to clarify how they might develop their advantages in advanced conventional arms against North Korea. Pyongyang's interest in acquiring strategic weapons capabilities, after all, is rooted in its belief that these weapons capabilities are all it needs to checkmate a U.S.-allied conventional response to North Korean military threats. By not clarifying how much more the United States and allies can do to execute their declared conventional counterstrike strategy against North Korean provocations, the United States and its allies are encouraging North Korea to believe it is correct.

Second, to ensure their long-term nonproliferation policies are effective, the United States and its allies must do more to oppose Pyongyang's illiberal, militant rule and violation of its own citizens' human rights. Almost all nonproliferation victories to date (e.g., in South Africa, Ukraine, Argentina, and Brazil) were occasioned by a

transition to liberal self-rule. The most worrisome proliferators, meanwhile, include nations hostile to such liberalism (e.g., Iran, Iraq, Libya, China, Syria, North Korea). Thus, besides being morally dubious, U.S. and allied reluctance to work with others to get Pyongyang to improve its human rights record is likely to undermine genuine nonproliferation.

Finally, the 1994 Agreed Framework nuclear reactor deal and the recent space launch cooperation offer need to be modified lest they complicate the long-term prospects for nonproliferation. First, tying nuclear inspections and dismantlement to the promised reactors' construction is only likely to produce delay. Yet, having these large reactors operate in North Korea is also dangerous from a nuclear proliferation standpoint. As such, it would make far more sense to replace at least one of the reactors with a nonnuclear power plant. There are similar concerns with the proposed space launch cooperation deal. Here, again, it would make sense to offer the civilian benefits of satellite technology (e.g., space imagery, space navigational and communications services) rather than space launch services, which necessarily involve access to the know-how to launch intercontinental-range payloads.

Each of these findings along with the analysis they were based upon is presented below.

Key Assumptions.

In assessing what ought to guide U.S. and allied strategies regarding Korea, the group reached the following conclusions: Any U.S. or allied strategy toward North Korea for deterrence or cooperation is most likely to be effective if it assumes that North Korea and, at times, China and Russia are engaged in a competition with the United States, Japan, and South Korea over the fate of Korea.

The United States and its allies should assume that the outcome of this competition is vital to the peace and

prosperity of the entire region. In fact, miscalculations could serve as a catalyst for a strategic military rivalry between Japan and China that could conceivably go nuclear or ballistic and revitalize major military power competitions beyond the Peninsula. On the other hand, if properly managed, this competition could result in the peaceful unification of Korea on terms acceptable to both the Korean people and the nations in the region. The fate of human rights, democracy, and peace for the entire region is tied to how this competition is conducted. Any strategy that is unacceptable to South Korea or Japan undermines America's ability to work with its close allies to leverage the behavior and thinking of China, Russia, and North Korea.

Agreement on these points and reliance on competitive strategies analysis influenced how the group went about its development of alternative strategies. For one thing, the group saw the most urgent U.S.-Korean concerns—e.g., North Korean development of nuclear and missile capabilities—as symptoms of much more basic factors. These factors included:

- the Kim regime's (or clan's) uncompromising desire to stay in power,
- the political threat that true political and economic reform presents to the Kim regime's maintenance of its control,
- the imperative of sustaining the myth that the Kim regime is superior to all others and the consequent requirement for high levels of isolation from the South and other cultures,
- the North's fear that eventual unification with the South will come at the expense of the continued rule of the Kim regime,
- the importance of the military to keeping the Kim regime in power and preventing the forces of peaceful

coexistence with Seoul from undermining the regime, and

- the Kim regime's recent efforts to use its offensive military capabilities (including its missile and nuclear capabilities) to help persuade the outside world to provide the food, fuel, and foreign credits necessary for its short-term survival, without the necessity of making fundamental political or economic reforms.

Thus, North Korea's recent seemingly schizoid behavior: North Korea prepares to launch a new intercontinental ballistic missile, the Taepo Dong-2, but after U.S. and Russian pledges to open trade and possibly pay for launching North Korean satellites, Pyongyang puts off launching the missile. North Korea continues to concentrate nearly 70 percent of its combat forces within 100 kilometers of the Demilitarized Zone (DMZ). It increases its artillery and rocket launcher deployments in this zone. It augments its production of submarines, missiles, aircraft, and artillery at record levels within the last year, increases the pace of military exercises, and then offers to meet with South Korea's president at a history-making summit.

Korean Conventional and Strategic Weapons Threats.

In fact, the group understood Pyongyang's interest in developing strategic weaponry to be a logical extension of its conventional arms capabilities. Currently, Pyongyang can threaten the prompt destruction of Seoul, Korea's largest concentration of population and wealth, with conventional arms alone. In addition, its military could attack and establish a modest foothold on or near the DMZ. Its ability to sustain such operations for a long period of time or to move its conventional forces further to the south, however, is negligible. In fact, South Korean and U.S. air forces could be counted upon to establish air superiority fairly quickly,

allowing their planes to demolish any visible North Korean land convoys headed south. In the longer term, the buildup of U.S. forces in Korea could be used to push back or outflank any North Korean incursion.

The North Koreans clearly understand this. They certainly do not need long-range missiles with nuclear, chemical, or biological (NBC) warheads to destroy Seoul or to make a military-diplomatic land grab along the DMZ. They do, however, need such weaponry to deter or complicate any allied counteroffensive. South Korean and Japanese airfields and ports critical to reinforce U.S. and South Korean forces are all vulnerable to missile attacks. Certainly, the pace of reinforcements could be slowed to a crawl if any of these logistical nodes were hit with NBC warheads. More important, both U.S. and Japanese officials would have to think long and hard about backing the military reinforcement of South Korea if it risked having U.S. or Japanese territories struck by long-range North Korean missiles.

These concerns have gotten the bulk of attention among U.S. and allied military analysts. Yet, the opposite point—that without its massive offensively deployed conventional forces, North Korea’s deployment of strategic weaponry makes far less military sense—has received scant attention. For this reason, research was commissioned on what kinds of conventional arms reductions efforts might make sense to propose to the North Koreans. Certainly, the issue of conventional force reductions would have to be tackled as a part of any Korean unification effort. There also is doubt whether North Korea would have to make the most reductions.

That said, most members of the working group were uneasy about proposing anything specific at this time. Their key concern was the fear that any proposal would result in undesirable reductions of U.S. forces currently deployed in Korea. As the Perry Report emphasized, any withdrawal of U.S. forces now would undermine the ability of the United

States and its allies to deter a North Korean attack. What the group did find to be curious, however, was the lack of any serious ongoing study of the complicated issues surrounding force reductions even in the government contractor community. Many of these issues were identified in the commissioned research.

In lieu of proposing conventional arms control at this time, the group agreed that the United States was not doing enough to neutralize North Korea's military strategy. In essence, this strategy consists of two elements. The first is the offensive deployment of North Korea's conventional forces for a short-range surprise attack. The second is the acquisition of long-range strategic weapons capabilities that could threaten rearward U.S. and allied staging bases to disrupt and deter any effective allied counterstrike. To date, the United States and its allies have focused diplomatically on efforts to get North Korea to promise not to deploy further strategic weapons capabilities. These efforts have produced mixed results.

The working group concluded that the United States and its allies need to do much more to dissuade North Korea from concentrating its conventional forces so close to the DMZ. In the case of a North Korean attack across this zone, the United States currently has a declared strategy of counterstriking deep behind the line of battle against Pyongyang. Clearly, North Korean military planners do not believe the United States is serious about implementing this plan. Why else would the North deploy nearly 70 percent of its offensive ground forces within 65 miles of the DMZ? This not only makes any outflanking maneuvers by allied forces much easier, it leaves strategic rearward areas such as Pyongyang much more vulnerable to attack.

If we are serious about reducing South Korea's vulnerability and reducing North Korea's incentives to acquire and brandish strategic weaponry, then Washington and Seoul, in the group's view, need to make their current military strategy much more credible.

Recommendation: Clarify What Our Military Strategy Against Pyongyang Requires.

In specific, the group agreed that the United States and its allies must clarify precisely what military capabilities are needed to implement the current strategy to address a North Korean attack against South Korea. The group also concurred that the United States and its allies need to identify better what North Korean actions might put this strategy (and its variants) into play. Towards this end, the working group created a military task force to identify what basic military capabilities, if acquired, would help the United States and its allies persuade North Korea to redeploy its existing forces in a more defensive manner. Among the capabilities the military task force identified were:

- Dispersed and offshore logistics capabilities, along with stealth technology and deception operations, to reduce U.S. and allied reliance on large logistics facilities, air bases, and ports that are naturally vulnerable to missile attack.
- Deception operations and stealth technology to conceal rapidly deployable allied maneuver forces.
- Long-range, precision-strike systems, including long-range bombers and fighters; long-duration unmanned air vehicles and missiles; stealthy mine-resistant amphibious and arsenal ships; integrated C3I systems, and the enhanced-lethality precision-guided munitions necessary to launch an effective deep strike against North Korea at reduced levels of vulnerability to North Korean air defense and anti-shipping systems.
- Information warfare and tailored munitions directed at North Korea's targeting systems and offensive command structure.

- Public information campaigns focused in the United States, ROK, and Japan to highlight the military technological dominance noted above.

Clearly, if the United States and its Asian allies had these military capabilities today, it would make North Korea's continued forward deployment of so much of its conventional forces near the DMZ untenable. Indeed, faced with such allied military capabilities, North Korea would have to redeploy much of its forward forces further north simply to protect Pyongyang against a possible allied counter strike. Beyond this, Pyongyang would have to spend even more on new air and sea defense capabilities—monies that it otherwise might have spent on more offensive weaponry. Finally, all of this might be accomplished while reducing the footprint of U.S. forces based in Japan and South Korea—something that would make them less vulnerable to both military and domestic political attacks.

The potential value of these military fixes, however, comes at a cost. The first is financial: all of these capabilities are largely beyond the immediate procurement plans of the United States, Japan, or South Korea and would not be cheap. The second is political and military: unless properly orchestrated, allied efforts to procure these capabilities might be misread as an offensive effort aimed primarily against Beijing. This, in turn, might produce an arms rivalry that the United States and its allies would not want to pursue.

The working group's military task force was conscious of these dangers. At the same time, they believed that the military dangers attendant upon a failure to bolster U.S. and allied military strategy against a possible North Korean attack were quite real. Their recommendation, therefore, was to play to America's comparative advantage in military innovation but to do so with the active participation of the Chinese military.

Specifically, the group recommended that the United States invite Chinese military officials to a series of military war games focused on scenarios involving possible U.S. and allied responses to different types of North Korean attacks against South Korea. These games could usefully

- be conducted at U.S. military service schools,
- highlight the range of damage that U.S. and South Korean forces could inflict in a variety of counterstrikes against a North Korean attack against, or strikes into, South Korea,
- be conducted on the basis of what might happen 5 to 15 years out factoring in the use of advanced military technologies,
- include exercises to demonstrate to China and other key regional players the challenges they would face with refugee control and humanitarian assistance operations,
- allow the Chinese representatives to express their concerns, and
- involve allied representatives as appropriate.

These games would have several objectives. First, they would help identify what new programs and operations were required to implement U.S. and allied strategy, which would in turn help bring them into being. Second, they could serve to impress upon the Chinese the seriousness of the U.S. and allied commitment to South Korea's security, a perspective which the Chinese could then convey to officials in North Korea.

With any luck, the North Koreans might reconsider their current course. One would hope that the United States could at least force a debate within North Korea about the risks of simply building up offensive forces along the DMZ backed by the further development of nuclear, chemical,

biological, and long-range missile capabilities. Finally, these games would give the United States and its allies direct access to and influence on Chinese thinking on these and related Korean matters.

Strategic Weapons Proliferation and the North Korean Regime.

In the midterm, getting more serious about the military competition on the Korean Peninsula should help bolster deterrence. In fact, the Perry Report's "Fifth Key Policy Recommendation" was for the United States and its allies to "approve a plan of action prepared for dealing with the contingency of DPRK provocations." The Perry Report goes on to note that "these responses should make it clear to the DPRK that provocative actions carry a heavy penalty." The Perry Report placed special emphasis on the need to develop responses to possible "provocations in the near term," but the clarification exercises the working group recommended clearly could be made a part of this effort.

This should help in the near and midterm. In the long run, however, the cause of nonproliferation can be sustained only with a significant moderation in the North Korean regime itself. In dealing with current events, the Perry Report may be right: We must deal with North Korea "as it is, not as we might wish it to be." But for the period that the working group was considering—the next 2 decades—regime questions are important. This is not just because we "wish" things to be different in Pyongyang, but because we know that most of the worst proliferators—e.g., Libya, Iran, Iraq, Syria, and China—have, like North Korea, been hostile to human rights. More important, we know that the clearest nonproliferation victories—e.g., South Africa, Argentina, Brazil, and Ukraine—all came with these nations' movement away from illiberal rule. If one is serious about promoting lasting nonproliferation, then indifference to these matters is a mistake.

It was for this reason that research was commissioned to examine the issue of North Korean human rights and what the United States and its allies might do to improve them. Several points emerged from this research and working group discussions. First, the ability of the United States and its allies to work within North Korea to change the regime's behavior is limited. On the one hand, overt, unhindered access to North Korea is not now possible. Covertly trying to overthrow the Kim regime, on the other hand, seems unrealistic.

With this in mind, the working group focused on what could be done to influence North Korean behavior from outside its borders. Speaking out at the appropriate United Nations (UN) forums on human rights was considered to be the minimum. Currently, the United States is quite vocal about abuses in China at these forums; yet it is virtually silent at these same venues regarding North Korea's transgressions. Beyond this, the group agreed that the United States and its allies should condition all humanitarian aid upon the proper monitoring of its distribution and that it should be given in-kind rather than in currency. As for international loans, these too should be made contingent upon measurable improvement in North Korea's protection of its citizens' human rights. Finally, the group concurred that the liberal democracies of the region—South Korea, Japan, Taiwan, the Philippines, Australia, New Zealand, etc.—should promote the further spread of liberal democracy and spotlight the shortcomings of states such as North Korea.

That said, the group understood that these measures were unlikely to have an immediate impact. There also was disagreement about the value of increasing trade and commerce with North Korea. Most thought trade could be used to open up North Korea, yet nearly as many feared that trade would be conducted in a concessionary manner that would only bolster the existing regime.

However, one idea highlighted in the commissioned research did seem actionable. It concerned the increasing number of North Korean refugees fleeing to China and Russia. Currently, there are between 100,000 and 200,000 North Korean refugees living in China and a much smaller number who have fled to Russia. The upper range represents nearly one percent of North Korea's entire population.

These North Koreans flee their country at great personal risk. First, they must elude or bribe North Korean border guards. Then, they must do the same with the Chinese authorities or risk arrest. It is estimated that of those arrested in China in 1999, approximately 7,000 (i.e., nearly ten percent of the new arrivals) were forcibly repatriated to North Korea. In March 2000 alone, Chinese authorities are believed to have forced 5,000 refugees back to North Korea. All of these repatriations violate international human rights agreements China has signed or ratified.

If the United States and its allies are serious about promoting genuine, lasting nonproliferation in Korea, it is essential that they promote greater North Korean respect of human rights and of enlightened government. In this regard, the working group agreed that one of the most promising opportunities was to persuade China and Russia to uphold their international obligations prohibiting forced repatriations.

Recommendation: Encourage China and Russia Not to Repatriate Korean Refugees.

One sure way to encourage North Korea to treat its own citizens better is to reduce the risks for its citizens who choose to leave North Korea. In fact, China has signed or ratified a number of international agreements that prohibit forced repatriations. It has violated all of them. These agreements include:

- The United Nations Convention on the Status of Refugees, Article 33 of which prohibits forced return of refugees when there is a serious risk that this would result in a further violation of their human rights,
- The Protocol Relating to the Status of Refugees, which requires close cooperation with the Office of the UN High Commissioner for Refugees,
- The Convention Against Torture, Article 3 of which prohibits the forcible repatriation when there are grounds to believe repatriated parties would be subject to torture, and
- The Convention on Civil and Political Rights, which makes the freedom to leave one's country a legal right.

China, for its part, is not eager to adhere to these agreements. Its biggest concern is that stopping forcible repatriation of North Korean refugees might encourage more North Koreans to flee to China. As it is, China has difficulty sustaining employment in Manchuria for its own citizens and can hardly afford an influx of additional mouths and labor.

The United States and its allies should work privately with China to see if they can help to address these concerns. Western aid and investments in Manchuria might be offered to help China cope with the problems North Korean refugees present. Arrangements to relocate North Korean refugees to locations outside of China might also be made quietly. A similar effort might be made to address the smaller numbers of refugees fleeing to Russia.

Nuclear and Space Cooperation and Proliferation.

Although the working group avoided debating the merits of current policy, one program, the Agreed Framework of 1994, kept intruding into the group's deliberations. The reason why was simple. Although the original arrangement

was supposed to be completely implemented by 2003, it now is clear that the promised reactors may not come on line anytime before 2010 or later. This is well into the period the working group was assigned to consider.

More important, it is the Agreed Framework, more than any other U.S. and allied effort, that the future of North Korea's known nuclear production facilities is tied to. So long as North Korea believes it is in its interest to uphold the deal, the operation of these facilities—a small reactor and a large reprocessing plant—will remain frozen. On the other hand, it is only when a significant portion of the first promised reactor is completed that North Korea must come into full compliance with its International Atomic Energy Agency (IAEA) obligations. Nor is North Korea obligated to begin to dismantle its other declared nuclear facilities under the deal until construction of this reactor is finished.

In fact, North Korea is free to pull out of the Agreed Framework at any time. The same is true of the United States and those nations contributing financially to implement the deal. Supporters of the original deal emphasized that North Korea would have much more to lose from withdrawal than the United States and its allies since it would forfeit either completion of the reactors (worth over \$5 billion) or their continued fueling. Yet, 7 years later, this eventuality is no longer so clear.

Indeed, in the nuclear area, the two things Pyongyang's military nuclear planners need most are what the Agreed Framework supplies. First it affords a vast increase in the number of nuclear technicians (under the deal South Korea must train approximately 1,000 North Koreans in nuclear operations). Second, it supplies a massive expansion of North Korea's nuclear materials production base. Thus, what Pyongyang could produce in 1994—one to two bombs' worth of plutonium a year—the two proposed modern U.S.-designed reactors, when completed, would exceed by nearly two orders of magnitude (i.e., an annual production of between 75 to 150 bombs' worth of material).

Compounding these concerns is an additional danger: the 1994 deal allows North Korea to delay dismantling its declared nuclear facilities until after the first of the two reactors (capable of making up to 75 bombs' worth of material annually) is completed. Clearly, this puts North Korea in a much more advantageous position with regard to possible withdrawal than the United States or its allies. Pyongyang can withdraw at any time, resume nuclear weapons materials production with its declared facilities, enjoy the advantage of more trained nuclear technicians, and conceivably increase its plutonium production with one of the two promised reactors by a factor of 30 or more.

All of this suggests that tying nuclear inspections and dismantlement to the completion of two modern reactors is a risky proposition. At a minimum, the 1994 deal is poorly leveraged to secure dismantlement. Supporters of the deal who are anxious to keep the United States and South Korea engaged in talks with the North tend to downplay these concerns. Yet, because of technical and legal challenges that those building the reactors would face, in the long run it is unclear if this project will serve or undermine the cause of North-South cooperation. A partial listing of these difficulties include:

- The reactors cannot be built without the export of U.S. nuclear items, the shipment of which to North Korea (a known violator of international nuclear safeguards) would require a controversial waiver of U.S. nuclear control laws.
- The only legal way the U.S. president could waive these laws is to secure a complex bilateral nuclear cooperative agreement with North Korea, the negotiation of which he has not yet begun.
- The required IAEA inspections of the North (which will require 2-3 years of unhindered access to North Korea) have not yet been agreed to by North Korea and cannot be performed in time to allow the reactors

to be built anytime near the revised 2007 construction target date.

- North Korea lacks the nuclear regulatory background sufficient to license and properly oversee the safe construction and operation of the plants and has no way to insure against nuclear accidents (which leaves participating nuclear contractors dangerously exposed).
- North Korea's electrical distribution system (which consists in part of buried iron wires) will have to be rebuilt (at a cost of as much as \$1 billion) to be able to effectively move the massive amounts of electricity the reactors would generate and to assure the reactors' safe operation. To date, no one has stepped up to this task.
- To prevent a breakdown of North Korea's electrical grid (which consists of both North Korea's electrical distribution system and the power plants connected to it) that would jeopardize the safe operation of the two planned reactors. Pyongyang would have to bring 5 to 10 times more electricity on line than it currently is producing. Otherwise, the one or two gigawatts of electricity the two reactors would generate would overwhelm (i.e., disrupt the smooth operation of) even a fully upgraded electrical distribution system. Assuming a price of \$1 billion per gigawatt of newly installed electrical capacity, this would cost somewhere between \$10 and \$20 billion additional dollars and take many years to accomplish. Also, as part of this grid upgrading, North Korea would have to develop an unprecedented, massive increase in its consumption and demand for electricity.
- Finally, there is the economic friction that continued pursuit of the reactor project is likely to produce. This worry was driven home recently in an analysis done

for the organization responsible for building the two reactors, the Korean Energy Development Organization (KEDO) by Bradley Babson, the World Bank's senior advisor on North Korea. As Mr. Babson pointed out, "If the nuclear plant project supported by KEDO was subjected to a normal World Bank project evaluation and appraisal, it would get an F." The reason why, he explained, was that North Korea's capacity to generate and distribute electricity was far too meager to absorb the output of even one of the proposed one-gigawatt power reactors. Thus, once the plants were completed, North Korea would not be able to sell sufficient electricity to repay the interest-free loan it assumed to fund the reactors' construction.

All of these factors, then, raise the question of why one would ever build the nuclear reactors in the first place. In fact, in 1997, the South Korean press reported that Pyongyang was well aware of these points back in 1994 and actually requested of its South Korean counterparts that one of the generating stations be nonnuclear. When this story ran in Seoul, and junior officials confirmed it, senior U.S. officials quickly denied it. But the point lingers. If we can't complete the reactors and Pyongyang needs electrical power, would it not be more sensible to make at least the first of the power stations nonnuclear and to tie the nuclear inspections and dismantlement called for in the Agreed Framework to this first nonnuclear power station's completion? Alternatively, KEDO could offer to revamp North Korea's existing electrical grid so it could take on more power as its economy grew.

As for its interest in space satellites, North Korea has no more of a civilian requirement for these or space launch services than it does for nuclear electricity. A case might be made for its gaining access to the services satellites might provide—e.g., imagery and communications. Yet, securing such services from the United States would be far cheaper and vastly superior to whatever peaceful civilian benefits Pyongyang might secure from launching its own crude

satellites (even if the United States and its allies paid for such launches). Offering satellite services in lieu of funding space launch also would avoid the risk of helping North Korean military planners secure the one thing they lack to perfect an intercontinental ballistic missile—a workable upper stage.

In fact, this is precisely the kind of technology the reported U.S. deal would be primed to provide. It is impossible to launch a North Korean satellite properly into orbit without developing an upper stage that can be appropriately mated to it. Under the deal currently being discussed, however, it is a North Korean satellite that will be launched. Because Pyongyang will be dictating the exact volume, weight, and fragility of the satellite being launched, it will dictate the precise kind of upper stage needed to launch it. Is there any way to prevent North Korea from specifying a satellite that would require a reliable version of the upper stage used in its frightening (and nearly successful) August 1998 launch attempt that flew over Japan? What of preventing Pyongyang from specifying some other satellite that would require an upper stage that it could then use on its more advanced Taepo Dong-2 launcher? Sadly, once one helps North Korea launch its satellites, discussions between its technicians and the satellite launch service provider over the specifics of the satellite to be launched and the design characteristics of the launcher and upper stage are unavoidable.

On this point, recent history is all too instructive. As the United States could not prevent China from gaining such information from U.S. space contractors and Russia could not live up to its pledges to block such technology from going to India, the prospects of keeping North Korea from securing such knowledge are slight. Nor does the option of using U.S. contractors to launch North Korean satellites (and trying again to keep these contractors from treading into the gray areas of intangible technology sharing) appear all that attractive.

Finally, it should be noted that in their current form both the nuclear and space deals risk straining the trilateral alliance relationship among South Korea, Japan, and the United States. Specifically, the Japanese are worried that both the nuclear and space deals are less in Tokyo's interest than they are in Seoul's or Washington's. The nuclear project, after all, sustains the South Koreans' Sunshine policy and keeps its nuclear utilities from floundering financially. It also has helped keep the United States from having to take a riskier, tougher stance towards Pyongyang's nuclear program. As for the space launch deal, this too helps sustain South Korea's Sunshine policy and costs Seoul little since it is not targeted by the Taepo Dong missiles. And it certainly relieves Washington of pressures to deploy missile defenses.

The benefits of these deals, however, are not so clear in Japan's case. First, Tokyo must pay \$1 billion toward the promised reactors' completion with only part of this money being spent on Japanese nuclear goods. Second, the full inspection and dismantling of North Korea's declared nuclear facilities are tied to the completion of the two reactors, which may take 10 or more years. As such, Japan's key worry—a nuclear Korea—is a threat it must live with for some time. Finally, a space cooperation deal that includes the Taepo Dong missiles, which might reach the United States, would address American concerns. Given the conventional artillery threat South Korea already faces, it may be possible to buy South Korean support for such a deal by allowing Seoul to deploy SCUD-range missiles of its own design. Yet, if it excludes No Dong missiles that can currently hit Japan, such a deal is only likely to strain the United States-Japan-South Korea relationship.

This, then, brings us to this report's final recommendation.

Recommendation: Demilitarize Proposed U.S. Space and Nuclear Aid to Pyongyang.

Recently, *Nulceonics Week* reported that senior U.S., Japanese, and South Korean officials discussed the idea of substituting a nonnuclear power plant for the first of the two promised reactors. South Korean officials objected that making such a proposal at this late date might threaten support for the Agreed Framework. It is worth noting that the objection was one of timing rather than substance. Eventually, for all the reasons noted above, the logic of returning to this idea will be compelling.

As for the space cooperation proposal, there are real advantages to offering Pyongyang satellite services instead. Perhaps the most important advantage is that the United States could make sure that such shared imagery, navigational, and communications services would not be used for military purposes. North Korea might request detailed photos of South Korean bases, but lacking any peaceful civilian purpose, the United States and its allies could rightly deny the request. With satellite-based communications services, the United States or its allies might provide free access to existing transponders so long as communications were not encrypted. The United States should also at least try to secure Japanese backing for this offer by making sure that missiles that can hit Japan—the No Dongs—are somehow included in the deal as well.

Making these adjustments would not only eliminate the potentially self-defeating aspects of the current deals, they should help bolster the trilateral alliance relationship among the United States, South Korea, and Japan—something that the Perry Report itself specifically recommends.