

# Harmonic Convergence?

## The Maturing U.S.-ROK Nuclear Relationship

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South Korean President-elect Lee Myung-bak made improved ties with the United States and Japan key pillars of his campaign, and his election is widely seen as moving Seoul's national security policy into closer alignment with Washington. Indeed, it seems likely that U.S.-ROK dynamics will improve under President Lee and should continue to do so regardless of whether the new U.S. president is a Democrat or Republican. The personalities likely to be involved in the Lee administration are experienced in foreign affairs and diplomacy and many are well known to U.S. "Korea hands," as well as foreign policy and security experts. These personal connections and candidate Lee's emphasis on the alliance bode well for the stability of the bilateral relationship in the coming years.

As Yogi Berra said, predictions are hard, especially about the future, and it is difficult to predict the specific shape of ROK policy under President Lee given the few foreign policy statements he has made. But from the people involved in the campaign and transition, and the emerging rhetoric and background from the next leader, certain pillars in ROK policy can reasonably be forecast. First, Lee Myung-bak is not an anti-North Korea conservative. Today's Grand National Party mainstream has clearly internalized a decade of engagement with North Korea. Lee Hoi-chang, generally opposed to engagement with the North, fared relatively poorly in the election, signaling that the majority of South Korean conservatives (and indeed the population more broadly) want to continue engagement at some significant level with the DPRK. Second, the

center in Korean politics is now occupied by a more pragmatic conservatism, focused on economic development and stability as opposed to ideology or secondary political issues. Frustration with the previous administration's focus on issues like the capitol's location to the exclusion of deeper economic issues was widespread in South Korea. Voting for the pocketbook does not necessarily mean people have forsaken the idealism that propelled President Roh to power five years ago, but the majority of voters were apparently motivated more by economic concerns than over one particular approach to North Korean engagement. In terms of relations with the United States, younger voters currently appear to care more about economics than hot button alliance issues (e.g., the memories of Gyeongju and the two girls run over by the Army truck). Third, Lee Myung-bak's campaign promises suggest that foreign policy is likely to be viewed through an economic prism, especially as it relates to engagement of the North. The main questions from Seoul are likely to focus on whether specific policies are good or bad for the KOSPI (Korean Composite Stock Price Index), not whether they are good or bad for relations with North Korea.

Election dynamics and Lee's rhetorical emphasis on the U.S.-ROK relationship do not, however, provide great insight into how the two countries will handle specific issues related to the challenge of North Korea's nuclear program or broader security issues. The suite of North Korea issues, which have dominated bilateral relations for almost 15 years, will continue to maintain a prominent position on the bilateral and regional agenda. The new South Korean administration will need to balance its desire for better coordination with the United States and its stated willingness to "criticize" North Korea when appropriate within the context of an entrenched national preference for continued engagement with North Korea. This baseline for engagement did not exist when the GNP last occupied the Blue House, but it is now an enduring reality in South Korea.

If history is any guide, North Korea is likely to test the new South Korean president sooner rather than later and to utilize traditional North Korean negotiating tactics, including occasional brinksmanship. Pyongyang has long

relied on its tried and tested strategy of seeking to drive a wedge between Washington and Seoul to extract maximum concessions from both states. It is possible, in fact, that the DPRK's failure to meet the December 31, 2007, deadline for disabling and declaring its nuclear assets is linked as much to gaming the new administration in Seoul as responding to any concerns about whether the United States and others will meet their commitments under the Six Party process. As usual with North Korea, it is nearly impossible to divine the truth. At the very least, South Korea's new administration has already signaled its desire to more closely coordinate its policies with the United States, which should make it harder for North Korea to find and exploit daylight between the two countries.

Closer coordination between the United States and ROK may also engender deeper cooperation in other technical areas, including the global expansion of nuclear power. As with foreign policy, President Lee's advisors are thought to be knowledgeable on nuclear issues and supportive of the Global Nuclear Energy Partnership (GNEP) and other bilateral cooperation with the United States. There is little information about the specific nuclear policy direction of the Lee Myung-bak administration, but the emphasis on economic development and closer ties with both the United States and Japan suggests some possible directions of ROK policy in these areas. In general, it is reasonable to assume that the trend toward deeper and broader cooperation on the full range of regional and bilateral nuclear issues will continue and even accelerate.

## **Relations in Flux**

Over the past six years, U.S. policy toward North Korea has shifted from outright confrontation to skeptical engagement. At the same time, South Korea's engagement efforts have become more realistic, even as they garner more ingrained support within Korean society. The restrained results of the Kim-Roh summit demonstrate that even the most forward leaning of Korean politicians recognize the need for some level of coordination of economic engagement with the realities of North Korea's nuclear behavior, or at the very least sequence nuclear issues before broader economic engagement.

Engagement (in lieu of any effective alternatives), however, has produced positive and even surprising results during 2007, once again raising the possibility that North Korea can be convinced to make the strategic decision to abandon its nuclear capabilities in exchange for alternative forms of economic and political security.

This prospect has arrived only after significant setbacks over the past six years. The collapse of the Agreed Framework (AF) process, coupled with North Korea's refusal to come back into compliance with its Nuclear Nonproliferation Treaty and AF obligations, followed by its testing of both longer-range missiles and eventually a nuclear weapon in 2006, were distinctly negative developments. The challenge of denuclearizing North Korea is considerably more difficult now than before, not least of all because of Pyongyang's apparent perception that it was the nuclear test that forced Washington back to the negotiating table. As one official tour guide at the Kaesong industrial complex told the *New York Times*, "Our relations began improving after our nuclear tests last year...The U.S. is basically afraid of nuclear proliferation, and we showed them who we are."<sup>1</sup>

The decision by the United States to pursue engagement with the support of other states in the region has produced surprising and dramatic progress. North Korea has aggressively cooperated with efforts to disable its nuclear facilities at Yongbyon, including the 5MWe nuclear reactor, reprocessing facility and fuel fabrication facility. While dismantlement was supposed to be complete by the end of 2007, not all of the agreed steps were complete by December 31, and North Korea may have begun dragging its feet in recent weeks. Despite these small setbacks, however, progress continues to be made. According to U.S. officials, once all of the dismantlement steps are complete, it would take North Korea a year or more to reconstitute its ability to produce plutonium.

The failure of North Korea to provide a complete and accurate declaration of its nuclear assets by the end of 2007 remains open to interpretation, with some believing it a sign of renewed North Korean intransigence and others

chalking it up to North Korean negotiating behavior. Assistant Secretary of State Christopher Hill, and apparently also President Bush in his letter to “Chairman Kim,” stressed the importance of accuracy over timing for the declaration. Further, according to news reports, U.S. and DPRK technical and political experts continue to work through the DPRK’s explanation of the equipment it acquired that led to the intelligence conclusion that North Korea was pursuing a uranium enrichment program.

In contrast to the ups and downs of the North Korean nuclear issue, bilateral U.S.-ROK civil nuclear cooperation has been steady and improving over the last six years. Growing global interest in nuclear applications has helped drive deeper bilateral cooperation, including increased work on the fuel cycle issue and technology, joint work on improved nuclear safeguards and verification, and the launching of GNEP (with South Korea joining in December 2007). This cooperation has yet to produce tangible results in support of the U.S. initiative to limit the spread of fuel cycle facilities to new states, but may be useful in helping to ensure South Korea does not develop independent fuel cycle facilities with all of the associated concerns as the two work to address Seoul’s legitimate fuel management issues.

## **Realigning Six Party Politics**

It is hard to speculate specifically how the policies of a new administration in Seoul will impact the Six Party process and what role the ROK will seek to play under a new administration. The closer connection between Washington and Seoul should help, however, in presenting a united front to North Korea, and in sending the two-pronged message to Pyongyang that full compliance is a must and cannot be compromised, but that with real compliance will come real benefits.

In the past, the political necessity for North Korea to comply quickly and completely with its obligations has been complicated by the deep desire in South Korea to preserve stability and strong political support for engagement with the North. This was especially true when the United States was seen as

opposing engagement or constructive negotiations, as during the early years of the Bush administration. But as the Bush administration has pursued a more realistic policy of engagement over the past two years, the ROK has also slowly adopted a more realistic tone, seeking to more effectively link its promises of aid and North Korean denuclearization. This convergence is likely to continue under a Lee administration and some have even speculated that Washington and Seoul may switch positions, with the United States possibly becoming more committed to engagement even in the face of less than total compliance from the North. It is unlikely, however, that President Bush and Secretary Rice will decide to continue an engagement policy in the face of brazen non-compliance from Pyongyang.

A policy of incentives for compliance is already a public part of President-elect Lee's declared approach to the North. His press spokesman announced on January 4, 2008, that the new president will seek to create a \$40 billion opportunity fund for North Korea, funds that would only be made available once the North denuclearizes. The initiative, which would raise funds through the World Bank and Asian Development Bank, is a sign that the new administration is serious about providing tangible benefits to the North if it meets its nuclear obligations, and that it continues to see economic investment in the North as a pillar of South Korean economic and security policy. It also demonstrates the shift from the Roh policy of nearly unconditional support to a policy of incentives with reverse linkages to the nuclear issue and, perhaps, human rights.

Some may argue that President-elect Lee's stated willingness to criticize the DPRK when appropriate and to draw closer to the United States will provide the North with a ready-made excuse to abandon the path of denuclearization. But Pyongyang has never had any difficulty in finding an excuse for not following through on previous commitments when it has determined that the timing was wrong for it to extract maximum benefits. If Washington and Seoul can more effectively coordinate positions within the Six Party process, it could help in sending these signals to the North and maintaining progress on disablement and eventual dismantlement. The risk may lie in whether or

not Pyongyang can be convinced that assistance and other political “rewards” for compliance will be forthcoming. While North Korea has given up some leverage through the disablement of several of its facilities, it continues to hold in reserve its trump cards until it has higher confidence that it will be able to exact the benefits in return for trading its nuclear weapons.

## **Cooperative Denuclearization**

There are a number of difficult technical challenges that await the United States and its allies at Yongbyon, assuming the denuclearization process continues in 2008. Until now, the United States has led the efforts to disable the three nuclear facilities, but the longer-term challenges of facility dismantlement, verification, material processing and elimination, and environmental remediation remain daunting. It has always been expected that South Korea would play a significant role in these longer-term steps. The pro-business slant of the new South Korean president bodes well for this expectation, and President-elect Lee’s emphasis on economic development and his proclaimed \$40 billion initiative suggest Seoul may be more willing to commit public funds for work in North Korea on certain nuclear dismantlement and clean-up operations.

The inter-alliance relationship on these issues is hard to predict. It is possible that a more confident ROK leadership will be more comfortable allowing Washington to take the lead on sensitive areas of the denuclearization process, and less prone to demand prominence in such activities. At the same time, a Blue House willing to spend more and willing to defer to the United States on some issues may find it necessary to adopt a more prominent position in certain activities in the North. Regardless of the adopted approach, it will be incumbent on U.S. officials to effectively cooperate and communicate their intentions and actions with Seoul.

What is likely is the continued concern many in South Korea will feel about not being “stuck with the check” for agreements worked out bilaterally between the United States and North Korea. The perceived slights of the AF

process have become conventional wisdom in South Korea, and U.S. officials will have to be sensitive to these political realities. In short, no politician in South Korea will be comfortable with the idea that they will provide most of the benefits to North Korea without having helped define the process.

## **Civil Nuclear Expansion**

Aside from the political and technical specifics of the Six Party process, the United States and South Korea are primed for a major increase in the level of civilian nuclear cooperation in the years ahead. The maturation of the South Korean nuclear energy and research complex provides both a challenge and an opportunity for U.S. policy makers, both of which can be more effectively managed in an environment of constructive relations between the two countries.

Energy security and demand are growing global issues, and even more so for developed industrialized states. The Lee transition team is actively working on its five-year energy plan, but no hard details have yet to emerge. It seems reasonable given the economic emphasis of the Lee campaign, the growing concerns over global warming, the promised global nuclear renaissance, and the advanced state of South Korea's civilian nuclear sector that the South Korean government will be looking to expand its commercial nuclear activities—both in South Korea and in the export markets—in the next few years.

One of the platforms of the Lee campaign was to cut taxes on oil and gas. While this may make fossil fuels more competitive for electricity production, it will also increase consumption and increase the need to secure alternative sources of energy. This, plus the push for increased economic production may lead South Korea to expand domestic nuclear energy plans beyond the six nuclear power plants currently on order. Seoul, however, already faces spent fuel management issues, and at the very least the industry faces significant regulatory issues in building new wet or dry storage facilities. With 20 nuclear power reactors in operation, and fuel storage space in short supply, South Korea will need to address a growing spent fuel challenge even if no expansion of the complex materializes. This need has been balanced for many

years against concerns that domestic fuel cycle capabilities would give Seoul a basis for a nuclear weapons program in the future. South Korea's undeclared enrichment and reprocessing experiments returned these concerns to the fore just as the Bush administration sought to impose an international ban on the further spread of such capabilities. U.S. policy has long supported a nuclear fuel cycle free Korean Peninsula, even in the face of North Korea's acknowledged activities. While the U.S. attitude towards reprocessing has changed over the past six years, there is still strong resistance to an independent ROK fuel cycle capability among many U.S. government quarters.

South Korea remains poised, however, to be a key player in emerging U.S. efforts to address the international management of the nuclear fuel cycle. South Korea is the most advanced nuclear power state not to possess domestic reprocessing or enrichment facilities, and finding ways to work with Seoul to address its legitimate fuel management issues in a way that undercuts the potential proliferation of domestically-run fuel cycle facilities should be a high U.S. priority. At the same time, it is clear that South Korean experts and laboratories can contribute to the development of both advanced nuclear fuel cycle activities and the safe and secure use of nuclear energy. While controversial in some technical communities, South Korean work on pyroprocessing technologies and associated safeguards approaches has been possible without creating an opening for South Korea to pursue independent fuel cycle capabilities. The safeguards research conducted by the two sides also helps ensure that international safeguard and nonproliferation norms are fully integrated as ROK nuclear experts and laboratories pursue nuclear research and development.

That said, it might be difficult to reconcile South Korean ambitions with current U.S. nonproliferation policy constraints. By sheer number of facilities and breadth of activities, South Korea is one of the most advanced nuclear states in the world, and it will be difficult to resist its ambitions to develop the full fuel cycle. As the nuclear situation in North Korea develops, or even if the nuclear issues in North Korea are fully resolved, economics and technical pressures could lead Seoul to consider its fuel cycle options in the years ahead. Strong and respectful nuclear cooperation now can help ensure that

any decisions taken by South Korea are fully consistent with the international nonproliferation regime and U.S. nonproliferation objectives.

The Global Nuclear Energy Partnership may provide the umbrella under which Seoul can feel like an equal partner, but this initiative is unlikely to satisfy South Korea entirely. These pressures are already being discussed at the working level, but will soon be higher on the South Korean agenda as the bilateral nuclear cooperation agreement (so-called “123 agreement” after the section of the Atomic Energy Act that governs such agreements) comes up for renewal in 2014. South Korea will probably press to change the scope of the agreement to allow for more fulsome fuel cycle activities, similar in scope to the analogous U.S. agreement with Japan.

## Policy Recommendations

Trends in both countries suggest there will be a natural momentum toward enhanced cooperation as the Lee administration assumes power. Below are a few specific ideas to make best use of that momentum.

- ***Restart the Trilateral Coordinating Group—TCOG.*** This regularized three-way meeting among the United States, Japan and ROK lost momentum several years ago as policy differences, among other issues, between the allies apparently made the format less attractive to the parties. Although the Fukuda government in Japan is not very strong, re-establishing the TCOG (perhaps under a different name) might help the three states better align policies on broader regional security and alliance-related issues, not to mention on North Korea issues, further encourage the ROK to transition from mediator to partisan, and help “reinvest” Japan in the detailed engagement process. There could also be added benefit of getting Japan and Korea back in the same room on a regular basis to discuss security issues. Steps should be taken so that the resumption of this dialogue will not be interpreted by either Beijing or Pyongyang as “ganging up” but rather as an appropriate dialogue among alliance partners.
- ***Increase burden-sharing on economic and energy assistance to North***

**Korea.** Washington has essentially ceded much of the economic assistance work in the Six Party Talks to South Korea. This is a natural division of labor that plays to each country's strengths and domestic political interests. More can be done to ensure that South Korea is not alone in bearing this burden, however. There is anecdotal reporting of interest by others in the region (Australia, New Zealand) in helping, and there may be opportunities to tap the G-8 Global Partnership as well. Seoul will need help in bringing in and coordinating outside assistance; Washington should seek to play matchmaker and help define the conditions under which outside aid is given, while keeping Seoul on point.

- **Draw on South Korean resources for nuclear dismantlement.** There remains some concern (particularly in Japan) that the ROK secretly wants to inherit DPRK weapons if and when unification takes place. All of the parties need to look past this concern and find productive ways for South Korea to participate in the denuclearization process that do not enhance its potential access to weapons-related capabilities in the North. There are a number of prime opportunities, including finding ways South Korean business and technology assets can be used to help redirect North Korea personnel and facilities to peaceful pursuits, creation of a multinational uranium mining concern in North Korea, contracting with ROK firms and the Korean Atomic Energy Research Institute for facility dismantlement, and entrusting ROK companies to do the complex and difficult work of environmental management in the North. A discussion on some of these issues is underway and should be accelerated.
- **Conduct a U.S.-ROK nuclear cooperation policy review.** The United States should establish a full policy review of its nuclear goals for a mature South Korea and design a nuclear energy and nonproliferation cooperation program that matches with these goals. Now, too much decision-making is done in a vacuum or on an ad hoc basis. Pursuing a high-level strategic conversation with the ROK, and working to make the ROK a leading voice in international nonproliferation and safeguards efforts, should be at the forefront of any nuclear cooperation agenda between Washington and Seoul. These discussions should include an open review of U.S. priorities

in fuel cycle issues. A key question for the United States and the ROK will be Seoul's willingness to engage in international efforts to prevent the spread of nationally owned and operated fuel cycle (enrichment and reprocessing) facilities. South Korea has been content to forego such domestic facilities, yet Seoul's sizable nuclear power capability gives it a viable economic argument for a domestic enrichment and fuel management capability. U.S. and ROK officials should begin a dialogue now to reinforce the South Korean commitment to rely on the international market for fuel services. Any decision by South Korea not to pursue a domestic reprocessing or enrichment capability would be critical to U.S. and international efforts to reinforce nonproliferation norms by reformulating the way nuclear fuel services operate internationally. Likewise, a decision by Seoul to pursue purely domestic fuel cycle facilities would be a setback to such efforts.

## Lingering Questions

Given the trends in U.S. and ROK policy, it is likely that the process of realistic engagement will continue for the foreseeable future. The United States will seek to ensure the September 2005 and February 2007 agreements are implemented, and given other realities in Iraq and elsewhere, will be anxious not to allow the situation in North Korea to spin out of control. Likewise, even if the new South Korean administration is more cautious about engagement with the DPRK than its predecessor, the broader political support for engagement and the stated emphasis on economic development suggest that Seoul will continue to support engagement with the North as long as progress is being made. How the relationship between Seoul and Washington on the DPRK and related issues evolves, however, will hinge in part on the answers to key questions about each capital.

***Will Washington's thirst for the deal endure?*** After abandoning the measured engagement policy of the Clinton years, the Bush administration now seems firmly focused on moving forward with the Six Party Talks. Whereas previous North Korean transgressions would have delayed or frozen relations,

even the revelation of apparent North Korean assistance to a covert Syrian nuclear program has not stopped the process. With the transition to the Lee administration, in fact, Washington and Seoul may swap positions, with Washington more committed to engaging the North than Seoul. While this drive in Washington has resulted in significant progress on disablement, it isn't clear that it will endure into a new administration, at least to the same degree. Thus, while the Lee administration may in some ways have to try to put the brakes on the United States in the near term so as not to be left behind in Washington's rush to get the deal done, a longer-term policy convergence will depend to a great extent on whether a consensus can emerge behind the policy of continued engagement with North Korea in the United States.

***Will Washington agree to a peaceful nuclear program in North Korea?***

Perhaps the biggest obstacle to the complete denuclearization of North Korea is continued opposition in Washington to meeting North Korea's demand for new nuclear power reactors. Thus far, Assistant Secretary of State Christopher Hill has successfully delayed consideration of this issue in the Six Party Talks, but if the disablement process moves to dismantlement, it won't be long before Pyongyang demands commitments to provide the same light-water reactors (LWRs) that were to be provided under the Agreed Framework, if not more in the way of a peaceful nuclear program. Given that Washington has been preaching the benefits of nuclear power globally, and has agreed to an operating reactor in Libya and even Iran, it may be difficult to convince North Korea to settle for anything less. The legality of providing LWRs to North Korea before it rejoins the Nuclear Non-proliferation Treaty (NPT) remains an open question, but can likely be surmounted if a political consensus on this issue emerges among the six parties. Washington will one day have to address the question of LWRs for North Korea. Will Washington swallow hard and agree to the LWRs, or continue to oppose them in perpetuity? For its part, Seoul was stuck with much of the cost for the previous reactors and is the likely candidate to pay again if the deal can be done. The announcement of a \$40 billion incentive fund for North Korea if it completed denuclearization suggests Seoul's willingness to foot the bill again.

***Where will DPRK policy be run in Seoul?*** President Roh signaled his intentions early when he essentially transferred the reins for North Korea policy from the Ministry of Foreign Affairs and Trade (MOFAT) to the Unification Ministry. This had two primary effects: to take out of the policy equation the nuclear and regional expertise at MOFAT; and to bureaucratize the nuclear issue within a unification policy framework. The results, from Washington's point of view, were not entirely welcome, as Seoul essentially ignored the nuclear issue and pushed forward with significant assistance packages and political dialogue that undercut efforts to pressure the North on the nuclear issue. How President-elect Lee manages the North Korea issue bureaucratically will have a significant impact on the ability of foreign policy officials in Seoul and Washington to reclaim common ground. Reports of a proposal to merge the Unification Ministry into MOFAT suggest that North Korea policy may be rebalanced with other foreign policy priorities, but this remains to be seen.

***To what degree will the perceptions of anti-Americanism continue to pervade Korean policymaking?*** Unlike Koreans, Americans tend not to have a long foreign policy memory. It is probably too soon to tell whether the high emotions of the past six years of U.S.-Korean relations will have a lasting impact. But longstanding trends that emphasize equality, balance and respect are going to remain strong in Seoul. Unforeseen events could quickly limit room for action by President Lee. The April 2008 National Assembly elections will be a key indicator of whether President Lee can consolidate power and achieve maximum flexibility to implement his policies free of lingering emotions.

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## Key Nuclear Facilities and Outstanding Issues

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**5MWe Reactor—Yongbyon.** This facility went on line sometime in 1989, and has produced at least three and possibly four core loads of irradiated fuel. The reactor is currently shut down, and 8,000 plutonium-bearing fuel rods are being unloaded. The spent fuel must be stabilized before it can be removed from the country.

**Reprocessing Facility—Yongbyon.** This facility has reprocessed the spent fuel from the 5MWe reactor to acquire the plutonium used in North Korea's nuclear weapons. It is being disabled under the terms of the February 2007 agreement. The facility consists of two reprocessing "lines" and can handle the full core load of fuel from the 5MWe reactor at Yongbyon. Verifying the waste products and operating history of this facility will be critical to determining how much separated plutonium North Korea possesses.

**Fuel Fabrication Facility—Yongbyon.** North Korea has used this aging facility to produce fuel for the 5MWe and the two other reactors that were only partially constructed when they were frozen under the Agreed Framework. It is in serious disrepair and has been effectively disabled. North Korea is not believed to possess enough additional fabricated fuel to be able to reload and restart the 5MWe reactor, but it does possess additional supplies of uranium oxide that could be fabricated into fuel.

**Existing Plutonium Stocks.** Based on remote calculations, North Korea is assumed to have approximately 50-60 kg of separated plutonium that could be machined into pits for nuclear weapons. North Korea's 2006 nuclear test consumed some amount of this plutonium, with perhaps 6-8 kg a conservative estimate. The size of the plutonium stockpile is probably the most important element of a North Korean declaration.

**Weapons.** Little is known about North Korea's nuclear weapons, and Pyongyang's public statements seem to confuse technical and political terminology—calling the program its "deterrent." For instance, it is not publicly known if the October nuclear test was of a deployable design or a device that would merely achieve an atomic yield but could not be mated to a ballistic missile or dropped from an aircraft. Furthermore, it is not known if North Korea has fabricated actual weapons. It seems unlikely that Pyongyang will include weapons in its declaration, instead keeping them as the final negotiating leverage.

**Enrichment Program.** A *Washington Post* report reveals ongoing discussions with North Korea about its 2002 purchase of aluminum tubes that could be used for centrifuges to enrich uranium. Furthermore, the *Post* reported that traces of enriched uranium were found on samples of the aluminum provided by North Korea, calling into question Pyongyang's assertion that there was no enrichment program.<sup>2</sup> The enrichment program is one of most significant unknowns in the DPRK nuclear program.

## Chapter 2 Notes

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- 1 Onishi, Norimitsu, "Eager South Koreans Tour a Semi-Open City in the North," *New York Times*, January 4, 2008, found at: <http://www.nytimes.com/2008/01/04/world/asia/04nkorea.html?ref=asia>
- 2 Kessler, Glenn, "Uranium Traces Found on N. Korean Tubes," *Washington Post*, December 21, 2007, found at: <http://www.washingtonpost.com/wp-dyn/content/article/2007/12/20/AR2007122002196.html>