



South Korea and Nuclear Weapons: Retrospect and Prospects

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Summary

South Korea first considered developing nuclear weapons under President Park Chung Hee in response to the Nixon administration's plan to withdraw US forces from South Korea. Concerned about the reliability of the US nuclear umbrella and US forces stationed in Korea so long as North Korea's military threats remained, Park launched the nuclear weapons project by seeking to import French reprocessing plants and establishing government funded institutes for research and development of fissile materials and nuclear weapon delivery means. The plan was detected by Washington and the US intensified efforts to roll back South Korea's nuclear weapon program. In 1982 the Chun Doo Hwan administration dis-established all nuclear weapon and missile related institutes and personnel. With the 1991 US decision to withdraw all tactical nuclear weapons from the Korean Peninsula, Seoul sought to achieve a nuclear-weapon-free Korean Peninsula and negotiations with North Korea resulted in the Joint Declaration on the Denuclearization of the Korean Peninsula that entered into force in February 1992. Within a year this agreement began to unravel as North Korea embarked on its nuclear weapons program and developed intermediate and long range missiles. Unless the international

community succeeds in denuclearizing North Korea, public demands in South Korea to restart a nuclear weapon program will rise. Therefore, serious challenges lie ahead to again make the Korean Peninsula non-nuclear, requiring unprecedented measures to be taken by international institutions and concerned countries in Northeast Asia.

US Nuclear Weapon Deployments in South Korea

1. South Korea's understanding of US strategic nuclear doctrines and deployments began to evolve after 1958 when US President Dwight D. Eisenhower deployed tactical nuclear weapons on the Korean Peninsula. The deployment supported the US strategy of deterrence through the threat of massive retaliation in response to any nuclear weapons use, mainly directed against Soviet security threats. The deployment was also designed as an economic strategy, to help reduce South Korea's military defence costs that would otherwise have been needed for adequate conventional deterrence and defence. Though it was known that tactical nuclear weapons had been deployed to US military bases in South Korea, the United States

maintained the “neither confirm nor deny” policy, refusing to inform either South Korea or other countries of the locations, numbers and types of weapons deployed.

2. At that time Washington assessed that the military balance between the two Koreas had been seriously eroded in favour of North Korea due to the clandestine introduction of Soviet MiG-19s and other weapons in violation of the 1953 Armistice Agreement. Nonetheless, the decision to deploy nuclear weapons in South Korea was made unilaterally by the United States without notifying President Syngman Rhee.

3. In February 1956 the Rhee government concluded a nuclear cooperation agreement with the United States which indicated South Korea’s willingness to use nuclear energy for peaceful purposes. Under that agreement South Korea acquired a Triga-Mark II research reactor from the United States.

South Korea’s Nuclear Weapon and Missile Development Efforts

4. South Korea’s nuclear weapon development program came into being in the early 1970s during the Park Chung Hee administration. The move was prompted by President Richard Nixon’s decision, notified to Seoul in 1970, that the United States would begin the withdrawal of its troops from South Korea. President Park determined to develop nuclear weapons to protect the South from North Korea’s growing threats which had been countered for nearly two decades after the Korean War by US security guarantees.

5. This announcement came on top of the disappointment the Park administration experienced two years earlier when the United States unilaterally decided to pursue a secret dialogue with North Korea over the seizure of the *USS Pueblo* in the East Sea. At the same time President Nixon had been urging South Korean restraint vis-à-vis the North Korean guerrilla attack on the Blue House (Seoul’s equivalent of the White House in Washington) that had

taken place just two days before the *Pueblo* incident. These policy shifts were interpreted as signs of the unreliability of the US commitment to provide Seoul with security guarantees through both conventional and nuclear deterrence. It was in this context that President Park decided to pursue a defence policy of self-reliance, including by developing nuclear weapons.

6. In 1972, shortly after the US withdrawal of the 7th Infantry Division from South Korea, President Park ordered his officials to launch a nuclear weapon development program. The order was based on a report drafted by Oh Won-Chul, the Second Presidential Economic Secretary at the Blue House, entitled *Atomic Nuclear Fuel Development Plan*. President Park approved the report on 8 September 1972.

7. The Nuclear Fuel Development Plan included five points:

- i Explanation of various types of nuclear weapons and Korea’s nuclear development plan;
- ii Projected numbers of the various nuclear weapons required;
- iii The production process for weapon-grade plutonium;
- iv Ways of obtaining nuclear fissile materials;
- v Ways of obtaining high purity of plutonium.¹

8. According to this plan, South Korea was to develop and manufacture nuclear weapons in two stages:

- i. The supply from Canada of CANDU-type heavy water nuclear power plants, and a National Research Experimental (NRX) research reactor from Canada (which make weapon-grade plutonium production more easily than light water based reactors); and

¹ Oh Dong-ryong, “South Korea’s Nuclear History from People’s Memoirs,” *Wolgan Chosun* (in Korean), May 2016.

- ii. Purchasing reprocessing technology to extract plutonium from France through a contract with the Saint-Gobain Nuclear Company.

9. This plan was soon detected by the US government which promptly mounted an all-out effort to thwart South Korea's proliferation attempt. In March 1975, the US Embassy in Seoul sent a diplomatic telegram to the US Department of State reporting that South Korea's commitment to develop nuclear weapons was so firm that the United States needed to respond directly and strongly at an early date to have the program ended.² The cables exchanged between Washington and the US Embassy in Seoul at that time discussed the prospect of South Korea's nuclear weapons provoking North Korea and Japan to follow suit, the proliferation "domino effect."³ Concerns were also canvassed about how the South Korean nuclear weapon program would impact on the Soviet Union, China and on the United States directly. The United States was further concerned that China and the Soviet Union might extend nuclear security assurances to North Korea in time of crisis.

10. The United States took a three-pronged approach to roll back South Korea's nuclear plan. First, it initiated cooperation among countries with advanced nuclear capabilities aimed at blocking both the French-Korean contract for building a reprocessing plant and the Canadian-Korean contract for transferring CANDU and NRX reactors to South Korea. As context, the US and other nuclear suppliers had been alarmed in 1974 by India's nuclear test which had utilized a CANDU type research reactor purchased through a commercial trade with Canada. To prevent such misuse the

² United States National Security Council Memorandum, "ROK Weapons Plans," 3 March 1975. History and Public Policy Program Digital Archive, Gerald R. Ford Presidential Library, National Security Adviser. Obtained by Charles Kraus.

<http://digitalarchive.wilsoncenter.org/document/114628>.
³ "US Department of State Telegram to AMEMBASSY SEOUL, ROK Plans to Develop Nuclear Weapons and Missiles," 4 March 1975 (970318).
<http://digitalarchive.wilsoncenter.org/document/114616>.

United States and others established the Nuclear Suppliers Group in 1974 to control nuclear technology transfers. Through those multilateral diplomatic efforts, the United States persuaded France to suspend its reprocessing plant contract with South Korea, as announced by French President Valéry Giscard d'Estaing on 23 May 1976 at the Meet the Press TV program interview.⁴

11. Second, the United States applied direct political and economic pressure on South Korea to abandon its nuclear weapon program. For example, Washington made the abandonment of the nuclear weapons program a condition of an Ex-Im Bank loan of \$275mn being negotiated for the construction of South Korea's Kori-2 nuclear power plant. Secretary of State Henry Kissinger also threatened to cancel US security commitments to South Korea by terminating the US-Korea security alliance unless South Korea abandoned its proliferation attempt. Furthermore, the United States imposed additional restrictions on the provision of US nuclear technology and material through a stringent bilateral safeguards agreement between Seoul and Washington.

12. Third, the United States urged South Korea to ratify the Nuclear Non-Proliferation Treaty (NPT) as soon as possible, to provide international legal assurance that South Korea had officially forsworn its nuclear weapon program. Canada, as a potential major supplier of nuclear technology, also joined in such persuasion efforts. In response to these pressures the Korean National Assembly ratified the NPT in April 1975.

13. On 12 June that same year, President Park Chung Hee told a *Washington Post* reporter: "South Korea ratified NPT not to develop nuclear weapons as long as the United States provides nuclear umbrella to South Korea. If the US nuclear umbrella were withdrawn, South Korea would do everything including nuclear

⁴ Young-Sun Ha, *Nuclear Proliferation, World Order, and Korea* (Seoul: Seoul National University Press, 1983), p. 181.

weapon development to defend its security.”⁵ Defense Secretary James R. Schlesinger visited his South Korean counterpart Suh Jong-chul in August 1975. While praising South Korea’s ratification of the NPT, the United States reassured South Korea by saying that it would do two things. First, it would provide military assistance to bolster South Korea’s defence capability and second, it would continue to provide a nuclear umbrella and stop further US troop withdrawals from South Korea.⁶

14. Despite US security reassurance to South Korea in 1975–76, the next US President, Jimmy Carter, again ignited South Korea’s interest in revisiting the issue of nuclear weapon development, when he announced, at a news conference on 9 March 1977 in Washington DC, that he would remove US tactical nuclear weapons and troops from South Korea over a five year timeframe.

15. In December 1976, the Park administration established the Korean Nuclear Fuel Development Institute (KNFDI). The ostensible purpose was to shift the focus of Korean nuclear research from proliferation sensitive back-end fuel cycle research projects of concern, to the front end of the fuel cycle including fuel fabrication, uranium conversion, and to a post-irradiation test facility. However, suspicion arose that KNFDI was doing indigenous research to develop a chemical reprocessing capability as well as uranium enrichment capacity – both banned by the earlier nuclear cooperation agreement with the US.

⁵ Park Chung Hee’s interview in Rowland Evans and Robert Novak, “Korea: Park’s Inflexibility,” *Washington Post*, 12 June 1975.

⁶ President Park Chung Hee’s meeting of 26 August 1975 with US Secretary of Defense James R. Schlesinger was reported as follows: “[Schlesinger said] The United States confers utmost importance onto the NPT and it is very wise for South Korea to observe the NPT. Park assured Schlesinger by saying that South Korea will surely observe the NPT faithfully.” “Memoranda of Conversations between James R. Schlesinger and Park Chung Hee and Suh Jong-chul,” 26 August 1975, History and Public Policy Program Digital Archive, Gerald R. Ford Presidential Library, National Security Adviser Presidential Country Files for East Asia and the Pacific, Box 9, Korea (11). Obtained by Charles Kraus.
<http://digitalarchive.wilsoncenter.org/document/114633>.

16. In the event, inspection and monitoring efforts by the International Atomic Energy Agency (IAEA) and the United States ensured that the program failed to achieve any meaningful results. In addition, as a result of President Carter’s suspension in 1979 of further US troop withdrawals pending a full review of South Korea’s defence needs, South Korea no longer had a credible rationale for continuing its hitherto unsuccessful nuclear weapon research efforts.

17. After the Park administration’s failed attempt to develop nuclear weapons, South Korea focussed on developing missiles whose range could go beyond Pyongyang, North Korea’s capital city. In September 1978, South Korea conducted a successful test of surface-to-surface missile named *Baekgom* (White Bear). The Carter administration took a serious look at South Korea’s missile problem and then agreed with Seoul to impose a limit on the maximum range of South Korea’s indigenous missile of 180km. This agreement continued until 1999 when the two governments reviewed the limit and raised it to 300km.

18. In September 1980, the new administration of Chun Doo Hwan closed down the Korea Atomic Energy Research Institute (KAERI), then the only South Korean nuclear research centre. In response, three months later the Ministry of Science Technology changed its name from Korea Atomic Energy Research Institute (KAERI) to Korea Advanced Energy Research Institute (KAERI), to erase completely the remnants of the former KAERI that had been implicated in weapon related nuclear fuel cycle research.⁷ In this process, a great many nuclear scientists and engineers were laid off. In 1981, one third of the staff of the Agency for

⁷ Roh Tae Woo, *Memoir of President Roh Tae Woo* (Seoul: Chosun Newspress, 2011), p. 378. According to this, President Roh heard from his predecessor, President Chun Doo Hwan that he stopped all nuclear and missile programs by laying off people and dismantling the organization that was involved in developing nuclear weapons and missiles. Shim Yung-taik, *Baekgom, Rise above the Sky (Haneulro Nala Oreuda)* (Seoul: Giparang, 2013).

Defense Development responsible for missile development were dismissed.⁸

19. The motivation for these measures was the Chun administration's desire to garner US political support which had been eroded by Chun's rise to power as head of a military coup. It was also, in part, motivated by a desire to mitigate US concerns about South Korea's nuclear weapon and missile programs. It took almost nine years for KAERI to regain the A for "Atomic" instead of the A for "Advanced." During that time, KAERI focused only on commercial nuclear power plant projects and avoided any activities related to fuel cycle research and development.

Denuclearization of the Korean Peninsula

20. Since the dismantlement of South Korea's indigenous nuclear and missile research and development program there has been no official effort led by a government organization on the South Korean side to revisit the issue of nuclear weapons development, until the present. After the demise of the former Soviet Union and with growing suspicion that North Korea may have been developing nuclear weapons, President George H. W. Bush announced in September 1991 the US intention to remove all tactical nuclear weapons deployed in South Korea, in expectation of reciprocal restraint on the part of the North Korean side. Encouraged by the United States, in November 1991 South Korea promulgated the "Declaration on the Denuclearization of the Korean Peninsula" in which Seoul committed not to produce, possess, store, deploy or use nuclear weapons. In this context South Korea also indicated its intention to forgo reprocessing and uranium enrichment plants even for peaceful purposes.

21. In December 1991, the two Koreas succeeded in negotiating the South-North Joint

Declaration on the Denuclearization of the Korean Peninsula which stipulated that "the two Koreas shall not test, manufacture, produce, receive, possess, store, deploy, or use nuclear weapons, and shall not possess nuclear reprocessing and uranium enrichment facilities."⁹ The Joint Declaration was signed on 20 January and entered into force on 19 February 1992. Since then, North Korea has been violating its denuclearization pledges, whereas South Korea has faithfully complied with such pledges up until now. Though South Korea proclaimed the development as victory for a non-nuclear Korean Peninsula, it was too early to have confidence in the outcome because the inter-Korean agreement had no inspection provisions to enforce the prohibition on North Korea's continued clandestine nuclear weapon activities.

22. The inter-Korean nuclear talks came to an impasse with the failure of the North to implement the Joint Declaration. Pyongyang exacerbated the crisis by threatening in 1993 to pull out of the NPT. This provoked the United States to embark on direct negotiation with North Korea to denuclearize North Korea resulting in October 1994 in the adoption in Geneva of the "Agreed Framework," an instrument designed to offer "an overall resolution of the nuclear issue on the Korean Peninsula."¹⁰

23. However, the Agreed Framework also had fundamental limitations and failed to achieve North Korea's complete denuclearization. Soon after the adoption of the Agreed Framework Pyongyang tried various channels to seek uranium enrichment technology for its nuclear weapons program both through Pakistan's A. Q. Khan network, and through Russian and European contacts. Citing these activities, the United States announced the suspension of activity under the Agreed Framework, quickly followed by its rejection also by North Korea,

⁹ See full text at <http://www.nti.org/learn/treaties-and-regimes/joint-declaration-south-and-north-korea-denuclearization-korean-peninsula/>.

¹⁰ See full text at <https://2001-2009.state.gov/t/ac/rls/or/2004/31009.htm>.

⁸ Park Jun Bock, *Myth of Korean Missile's Forty Years* (Seoul: Iljogak, 2011), p. 66.

claiming that the United States had not lived up to its promises.

24. In 2003 a renewed effort was made to resolve North Korea's growing nuclear threats through a dialogue arrangement, the Six Party Talks, held between 2003 and 2008 involving South Korea, North Korea, the United States, China, Japan, and Russia. Despite various measures adopted in the Six Party Talks, North Korea eventually walked away from the process claiming that it had achieved the status of a "nuclear weapon state" in order to protect its security, sovereignty, and deterrence against the "US hostile policy."

25. The issues at stake in the Six Party Talks were (a) how to verify North Korea's pledge to denuclearize, including the extension of international inspection to all North Korea's secret nuclear fissile materials, weapon programs, facilities and test sites without permitting any sanctuaries; and (b) the shape of the corresponding incentive package acceptable to North Korea. This negotiation also ultimately failed and North Korea's nuclear and missile issues reached the peak of international crisis that we are now facing.

Mitigating South Koreans' Support for Nuclear Weapons

26. North Korea's nuclear and missile developments increasingly posed serious challenges not only to the nuclear non-proliferation regime, but also to the Korean Peninsula and the Northeast Asian region. The five partner countries of the Six Party Talks (South Korea, the United States, China, Japan, and Russia) made enormous efforts, in tandem with the United Nations Security Council, to roll back those programs.

27. As the North Korean regime of Kim Jong-un pursues a tit-for-tat game with the United States, including developing the capability to deliver nuclear weapons by intercontinental ballistic missiles (ICBMs), the possibility of war increases over time, thus endangering the peace and stability of the Korean Peninsula and

of the world. With Pyongyang's growing threat of use of nuclear weapons and missiles, Washington's willingness to use nuclear deterrent capabilities to rescue Seoul at the risk of a North Korean nuclear attack on the US continent directly becomes questionable. The credibility of the US nuclear extended deterrence is at stake.

28. Against this background, the international quest of abolishing nuclear weapons is rising, as demonstrated by the UN adoption of the Treaty on the Prohibition of Nuclear Weapons (the Nuclear Ban Treaty) on 7 July 2017.¹¹ The nuclear non-proliferation regime and its norms are planted deeply and widely in the South Korean political culture, with self-restraints and policy processes that are strong in resisting the South Korean people's preferences for going nuclear.

29. However, as international institutions and alliance mechanism do not seem able to successfully eradicate North Korea's nuclear ambition, public support for South Korea's nuclear weaponization is growing, and this in turn might shift public and political opinion in Japan in favour of the nuclear weapon option. Therefore, it is time for the five permanent members of the UN Security Council (the same five nuclear weapon states of the NPT regime) to seek unanimously strong, proactive and effective measures towards North Korea, instead of responding to North Korea's weapon tests and developments reactively.

¹¹ See Ramesh Thakur, "The Nuclear Ban Treaty: Recasting a Normative Framework for Disarmament," *The Washington Quarterly* 40:4 (Winter 2018), pp. 71–95.

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APLN and CNND

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