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Nuclear Weapons and International Security; the Threat of North Korea

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August 6, 1945 began as a beautiful summer day in Hiroshima. The director of the Hiroshima Communications Hospital began his diary entry of the morning: "The hour was early, the morning still warm, and beautiful… shimmering leaves, reflecting sunlight from a cloudless sky, made a pleasant contrast with shadows in my garden".

The atomic bomb exploded at 8:16 a.m. Hiroshima time, 1,900 feet above the courtyard of Shima Hospital, and 550 feet southeast of the Aioi Bridge. As one crew member of the B-29 which dropped the bomb described it, "Where we had seen a clear city two minutes before, we could no longer see the city. We could see smoke and fire creeping up the sides of the mountains." In the words of another crew member, the city looked like "a pot of boiling black oil." Still another said, "The mushroom was a spectacular sight, a bubbling mass of purple-gray smoke, and you could see it had a red core in it and everything was burning inside."

As a Japanese study later explained it was not only human beings that died in the many scores of thousands at Hiroshima: "The whole of society was laid waste to its foundation." And this was a small atomic weapon.

The world changed in 1945 with the advent of the atomic bomb. For the first time, humankind possessed a weapon with which it could destroy itself. Nuclear weapons are truly unlike any other form of weaponry. The atomic bomb used against Hiroshima in 1945 was 14 kilotons or 14 thousand tons of TNT explosive equivalent. In a few years, the United States and the Soviet Union were testing nuclear weapons in the megaton range or million tons of TNT explosive equivalent. Soon, a vast nuclear arms race was underway. The Soviet Union built 55,000 nuclear weapons, the United States some 72,000 and at one time had 32,500 in its arsenal, the Soviet Union possessed around 45,000 in its arsenal for many years. This effort eventually bankrupted the Soviet Union and cost the United States in excess of $5.5 trillion in 2004 dollars.

President John F. Kennedy truly believed that there was a serious risk that nuclear weapons were destined to sweep all over the world. In March of 1963 in response to a reporter's question at a news conference, he said, "[P]ersonally, I am haunted by the feeling that by 1970 . . . there may be 10 nuclear powers instead of 4, and by 1975, 15 or 20. . . . I would regard that as the greatest possible danger and hazard."

If such anticipated proliferation of nuclear weapons had in fact happened, with the spread of technology there could be far more than two dozen nuclear weapon states in the world today, with nuclear weapons integrated into their national arsenals representing an incalculable security threat; every conflict would run the risk of going nuclear and it would be extremely difficult to keep nuclear weapons out of the hands of terrorist organizations they would be so widespread. Such a development would make today's security situation seem like paradise by comparison; Venezuela and Cuba with nuclear weapons; perhaps Al Qaeda with access to nuclear weapons. But this has not happened, at least not yet, because of the negotiation of the Nuclear Non-proliferation Treaty (NPT) which converted the acquisition of nuclear weapons by additional countries from an act of pride into an act of international outlawry and the associated extended deterrence policies (the nuclear umbrella) of the U.S. and the Soviet Union for their allies during the Cold War. The NPT was signed in 1968 and entered into force in 1970 and came to be recognized as the principal reason that President Kennedy's darkest fears have thus far not been realized.

But the success of the NPT to date is no accident. The treaty was based on a carefully crafted central bargain. In exchange for a commitment from the non-nuclear weapon states (today more than 180 nations, most of the world) not to acquire nuclear weapons and to submit to international safeguards to verify compliance with this commitment, the nuclear weapon states recognized by the NPT (the United States, the United Kingdom, France, the Soviet Union, Russia, and China) pledged unfettered access to peaceful nuclear technologies and undertook to engage in nuclear disarmament negotiations aimed at the ultimate elimination of their nuclear arsenals. As part of this, most importantly, they pledged to stop testing weapons and negotiate a comprehensive nuclear test ban treaty. It is this basic bargain that for the last four decades has formed the central underpinnings of the international non-proliferation regime that has kept the

nuclear peace. However, few of the disarmament elements of the NPT basic bargain have been actually accomplished more than forty years later; the test ban has been languishing in the U.S. Senate for nearly fifteen years after the negative vote in 1999.

However, the NPT is in crisis, in part because of the essential failure of the disarmament agenda with many important objectives remaining unachieved, and in part because of the continuing high political value of nuclear weapons, whereby the possession of nuclear weapons is seen as the distinguishing feature separating great powers from other states. As a Prime Minister of Great Britain said many years ago nuclear weapons "put us where we ought to be…in the position of a great power." With the NPT basic bargain remaining unrealized after forty years, states eventually could leave the Treaty; North Korea already has de jure, Iran has de facto. The NPT is threatened from many sides today but primarily at this time by the nuclear programs in Iran and North Korea. The nuclear programs in these two states threaten to break open the NPT regime in the Middle East and Northeast Asia and thereby unleash the wide-scale nuclear proliferation that President Kennedy so greatly and rightly feared.

The North Korean nuclear problem much in the news today goes far back in history. In 1964, the North Korean dictator Kim II Sung, installed by the Soviets after World War II and author of the Korean War as a result of his attack on the South, journeyed to China seeking nuclear weapon technology. Nuclear cooperation agreements had been signed with the Soviet Union in 1956 and 1959, as well as with China in 1959. His forces had been humbled by the United Nations forces led by the United States, and an uneasy truce had succeeded the Korean War in the region of the 38th parallel, the original border between North and South. These cease-fire arrangements, referred to as the Demilitarized zone or DMZ, still are in place some (60) years after cessation of hostilities.

The Chinese were a brand new member of the nuclear weapon club, having conducted their first test in 1964. They were not interested in becoming a nuclear weapon proliferator at the same time as becoming a nuclear weapon state and politely declined Kim's request. Muammar Gadhafi tried the same thing in 1970 and Kim II Sung made his request again in 1974, at a time when South Korea was exploring a nuclear option, China's response to both was

again in the negative. Therefore, in the late 1970s, Kim gave the order to his government to begin seeking nuclear weapons on their own. In the early 1980s, North Korea began building a research reactor at Yongbyon in the 20-30 megawatts (thermal) range – 5 MW (electric). The reactor produced heat and electricity but it also produced plutonium. This reactor became operational in 1986. The Soviet Union put heavy pressure on North Korea to join the NPT and they did so in 1986, the year the 5 MW reactor at Yongbyon became operational. However, the DPRK did not negotiate a Safeguards Agreement with the International Atomic Energy Agency (IAEA) as required by the NPT. Further, pressure was put on North Korea to do this and in 1992 the DPRK finally signed such an Agreement with the IAEA.

A number of inspections followed, led by IAEA Director General Hans Blix. The IAEA inspectors discovered a reprocessing facility-which the DPRK had denied possessing, referring to this facility as a "radioisotope laboratory." The inspectors also became suspicious of two waste storage sites and asked to inspect them, which request was denied. North Korea had shut down its 5 MW reactor in 1989 for some weeks, long enough to withdraw fuel rods sufficient to reprocess enough plutonium for one to two weapons, it was later surmised.

In February of 1993, the IAEA Board requested a "special inspection" of the two waste storage sites which it was believed, based on satellite imagery supplied by U.S. intelligence, would indicate that there had in fact been undeclared plutonium production.

The IAEA Board had initially been divided over whether to make such a demand, but the satellite imagery persuaded those who were uncertain. The Board gave the DPRK 30 days to respond but did not need to wait nearly that long for the response from Pyongyang. North Korea rejected the inspection request the very next day and approximately two weeks later, on March 12, gave the three-month notice required by the withdrawal provision of the NPT. A few weeks later, near the end of March, the IAEA Board approved a resolution which stated that it could no longer certify that illegal nuclear material diversion had not taken place in North Korea and forwarded the DPRK case to the UN Security Council for consideration of sanctions. This ultimately led to negotiations.

The negotiations which began in the spring of 1993 and which culminated in the Framework Agreement toward the end of 1994 went through several ups and downs. By the early spring of 1994, only limited progress was being made when North Korea suddenly decided to pull the fuel rods out of its 5 MW reactor in order to insert a new fuel load without permitting an IAEA inspection. This raised the risk of the reprocessing of the fuel rods, which, it was believed, contained enough plutonium for perhaps five or six nuclear weapons. The United States promptly informed North Korea that if it began the reprocessing of the spent fuel, the U.S. would destroy the reprocessing plant with cruise missiles. The North Koreans responded that if the United States did that, the DPRK would turn Seoul into a "sea of fire." The U.S. began to make war plans.

Into this impasse strode former President Jimmy Carter. He was invited by the DPRK government to make a visit and informed the Clinton administration that he would be going. President Carter traveled to Pyongyang in June and met at some length with Kim II Sung. By emphasizing what could happen if the DPRK could reach agreement with the United States as opposed to what would happen if it didn't, the usual U.S. talking point, President Carter was able to reach some understandings with the North Korean dictator that set the negotiations back on track. Thus agreement was reached in November.

Under the agreement, called the Agreed Framework, the DPRK nuclear program which had begun in the 1980s was frozen. The 5 MW reactor could make enough plutonium for one nuclear weapon a year. The Agreement was in force for eight years, so that is eight nuclear weapons that the DPRK did not acquire.

North Korea is a dangerous state. It has a long track record of being willing to sell anything to anyone for its own benefit. It also has a past history of state terrorism particularly against South Korea. Nuclear weapons in its hands combined with ballistic missiles pose a double danger. It could sell nuclear weapons to countries like Iran or to international terrorist organizations or it could transfer bomb production technology as it did to Syria in the 2005-2007 timeframe. Also, it could threaten Japanese and South Korean cities with nuclear attacks mating nuclear weapons to Nodong medium range missiles. But they will negotiate. Their motivation

is survival and economic benefits. Military action is not an attractive option due to the threat to Seoul from the huge North Korean forces arrayed along the DMZ border less than 20 miles away. Diplomacy appears to be the only practical option at this time.

The Bush administration inherited a situation with the DPRK in January, 2001 where the long running crisis was contained and there existed a road toward resolution. The DPRK had in its possession perhaps enough plutonium for one or two nuclear weapons but the plutonium program was capped and contained by the Agreed Framework. In addition President Clinton had a missile agreement under negotiation – needing only a step or two for completion which would have ended the DPRK missile program. The U.S. was beginning to learn the details of North Korea's illicit bargaining with the former Pakistani nuclear proliferator, A.Q. Khan, but at this stage the DPRK had not actually done much with the uranium enrichment technology provided beyond receipt of the centrifuge technology from Khan. Thus, agreement was near on termination of the missile program, both the domestic and export parts, and progress had been made toward some sort of broad settlement with North Korea which, however uneasy, might have at least have removed the DPRK from the ranks of rogue nations.

However, the new administration entered office in 2001 with the view that there should be no negotiations with "evil," rather it should be overthrown. And the new president upon taking office early on asserted that because of his oppressive internal policies he "loathed" the North Korean dictator Kim Jong-il who apparently at the time had been ready and was still working to try to reach a sort of peace with the United States. The new administration seemed to think that missile defense and regime change were better policies to pursue with North Korea. The results that flowed from this world view were that the Agreed Framework was destroyed, the emerging agreement on missiles was put aside, the DPRK was energized to actively pursue uranium enrichment, a peace process became a descent toward severe antagonism and confrontation, and North Korea withdrew from the Nuclear Non-Proliferation Treaty. The situation became completely unconstrained while North Korea twice conducted plutonium reprocessing from its Yongbyon reactor in 2003 and 2005 thereby increasing its near-term nuclear weapon potential from one to two weapons to at least eight to ten weapons, an act that the Clinton administration was prepared to go to war to prevent.

Desultory negotiations followed without definitive results until 2008 and since the end of the Bush administration until today there has existed a situation where there is no on-going negotiation process with North Korea at all and there is an active ballistic missile development program, including one test of a would be intercontinental ballistic missile. And by 2009 North Korea had conducted two nuclear weapon tests, declaring after the second that it was now a nuclear weapon state. These developments were deeply contrary to U.S. and world security interests and raised a real question whether North Korea would ever give up nuclear weapons, and allow this dangerous problem to be solved.

Iran is another country that has been pursuing nuclear weapons for many decades. The program began under the Shah in the 1970s. With the assistance of Germany, France, and South Africa, Iran planned a large nuclear infrastructure. A contract was signed with Siemens of Germany to construct two 1,000 megawatt nuclear power reactors at Busheher on the Persian Gulf not far from the border with Iraq. Ultimately, twenty reactors or perhaps even more were planned. Such a program would have in fact established a significant nuclear industry. Many believed that the planned infrastructure was intended to have a dual assignment to support a nuclear weapon program as well as a nuclear energy program. This objective was largely confirmed in 2004 by one of the Shah's former foreign ministers, Ardeshir Zahedi, who said: "…the assumption within the policy making elite was that Iran should be in a position to develop and test a nuclear device within 18 months" of making the decision to construct nuclear weapons.

But why would Iran want nuclear weapons? The rationale behind the program today is of course different from that behind the program of the Shah, as much history has passed by since the 1970s. But there is one reason that the former program of the Shah and the current program of the Islamic Republic share, the international prestige that comes with nuclear weapons. Since early in the Cold War, the possession of nuclear weapons to a degree has distinguished great powers from other states, and this political value of nuclear weapons has not declined since the end of the Cold War.

Iran is a proud country. The Persian cultural heritage is one of the richest in world civilization. The Persian Empire was once the world's most powerful. If former provinces and client states of the Empire now have nuclear weapons, why shouldn't Persia-or Iran-itself? The view of many Iranians may be that Iran deserves to be a great power. And today, the emerging public sentiment in Iran is that Iran, being a great civilization with a long history, has a right to acquire nuclear weapons. The nuclear program and Iran's national identity have become linked in the minds of some of Iran's rulers. Ali Hussein-Tagh, Deputy Secretary of the Supreme National Security council, said in 2006, "A nation that does not engage in risks and difficult challenges, and a nation which does not stand up for itself, can never be a proud nation". A reformist activist, Sayyed Mostafa Tajzadeh, noted in 2003, "It's basically a matter of equilibrium; if I don't have nuclear weapons, I don't have security."

In addition, there are further security issues, which could affect Iranian views on the need for nuclear weapons. Iran is a Shia Muslim state, Pakistan is a Sunni Muslim state. One has only to recall the high level of violence in Iraq a few years ago between Shia and Sunni to understand how Iranians might have concerns about Pakistan. Pakistan has an advanced nuclear arsenal. Pakistan has had interest in expanding extremist Sunni control in Afghanistan, Iran's neighbor, hence Pakistan's past strong support, which continues somewhat to the present, of the Taliban. Iran some years ago, in the late 1990s nearly invaded Afghanistan after the Taliban, during the Afghan Civil War, killed nine Iranian diplomats in its Consulate in the town of Mazur-i-Sharif (along with thousands of Shias civilians) in the north of the country. If a radical Sunni regime ever took power in Islamabad and came into possession of Pakistan's nuclear arsenal, Iran would have a right to be fearful. After Pakistan's nuclear tests in 1998, Akbar Hashemi Rafsanjani, the former President and then current head of the Expediency Council said "This is a truly dangerous matter, and we must be concerned."

Iran asserts that its nuclear program is peaceful, that Iran is only interested in nuclear power but the entire history of their program appears to be largely inconsistent with that assertion. Beginning with the Shah in the 1970s, there was an apparent interest in the prestige and power associated with nuclear weapons. When Ayatollah Khomeini disavowed an interest

in nuclear weapons the Bushehr reactor program was put on the shelf; when Iranian policy changed, the reactor program was revived. A.Q. Khan was not known as a promoter of nuclear power; he was selling nuclear weapon capability. Iran had a nearly 20-year clandestine relationship with him and acquired from him centrifuge enrichment technology and possibly the design of a Chinese nuclear weapon-the same one Khan supplied to Libya. Having an enrichment capability to fuel one or two reactors-we don't see Iran actively planning to build any more at this time-is one thing; constructing an industrial-scale facility capable of producing material for more than twenty nuclear weapons a year is quite another. And how does a heavy-water reactor producing plutonium relate to the electricity grid?

And now a significant new turn in the road toward further nuclear proliferation, may recently have been made. As reported in the London Times Western intelligence sources believe that Iran's leading nuclear scientist, who some Western media sources have suggested as possibly the head of the Iranian nuclear weapon program, Dr. Mohsen Fakhrizadeh-Mahabadi, travelled to North Korea via China to observe the third North Korean nuclear weapon test on February 11. Among other assignments the Iranian official is in charge of developing a warhead small enough to be carried by one of the ballistic missiles developed by Iran from North Korean prototypes. Japanese government sources and South Korean defense officials said last week that the principal objective of this third North Korean test was to develop a missile – ready warhead.

"Japan has underestimated the North's capability. The atomic bomb appears to have been made compact enough to be placed on a missile" a Japanese source reported to the leading business newspaper, Nihon Keizai Shimbun, and after calling such an achievement questionable for some time, last Thursday a new assessment by U.S. Defense Department intelligence concluded "with moderate confidence" that North Korea has learned how to make a nuclear weapon small enough to be delivered by a ballistic missile. At this time, however, the reliability of North Korea's missiles is judged to be low.

While the Chinese Foreign Ministry condemned the test, the North Koreans may continue to rely on the Communist Party's international relations department and elements of

the People's Liberation Army for support. The Times also cited leaked American diplomatic cables which describe a web of financial transactions among North Korea, Iran and China through a number of banks in the City of London including the Tanchon Commercial Bank (said to be North Korea's primary agent for sales of conventional arms and ballistic missile technology), the Bank of China, The National Bank of Egypt, the Moscow Narodny Bank, and the Havin Bank (majority owned by the government of Cuba). Iran's Bank Sepah apparently has a relationship with Tanchon Bank.

There exists a growing sense of foreboding in Japan and South Korea, where debates recently broke out as whether the country should have nuclear weapons. Also who is to say what the thinking is in Saudi Arabia whom many believe will seek nuclear weapons should Iran acquire them? Saudi Arabia likely could acquire such weapons from Pakistan, it is widely believed, as Saudi Arabia financed the Pakistan program.

Experts are saying that the North Korea test once again demonstrated that sanctions do not work and that North Korea will retain nuclear weapons as long as the current regime is in power. Others say that North Korea has simply concluded that nuclear weapons are too vital to its security to trade them away. On March 9, the North Korean Foreign Ministry issued a statement to the effect that the North's "status as a nuclear state would become permanent, while referring to its nuclear arsenals as" the strong guarantor of the Nation's sovereignty and security. On April 1, North Korea's central committee presided over by Kim Jong-un referred to nuclear weapons as "the nation's life." Formerly North Korea was limited to the production of only a small number of plutonium weapons, but in 2010 they showed a completed uranium enrichment plant (some say better than anything the Iranians have) to a group of visiting American experts. This opens the door – via the technology sold to North Korea years previously by A.Q. Khan – to build a significant number of nuclear weapons each year. It may be that North Korea would sell highly enriched uranium or even nuclear weapons themselves – which have been already mated to North Korean missiles, which are the same basic design as the Iranian missiles - to Iran. Indeed the West could have it all wrong, the Iranians perhaps in fact are going to use their enrichment facilities at Natanz and Qom to fabricate peaceful reactor grade uranium and have outsourced their nuclear weapon program to North Korea.

So some experts are now saying that the West should no longer attempt to disarm North Korea but rather to contain the country – both its missile and weapon development and its proliferation activities, such as those ongoing and in the past with Iran, Pakistan and Syria. But what about the reactions in Japan and South Korea? How much longer will they rely on extended deterrence – the American nuclear umbrella – and forgo their own programs which with their advanced technology they could quickly implement. Such a move could break the NPT and once again raise the specter of the highly proliferated world that haunted John F. Kennedy.

And as a result of the apparent Iran, China, North Korea new triangular trade will the West one day have to develop means to deter and contain Iranian nuclear weapons with Saudi Arabia, Egypt and others acquiring weapons of their own. The NPT would no longer exist at this point.

The United States is the strongest nation in the world. The NPT still exists. It is important, in order to establish US credibility and strengthen the NPT, for the U.S. to first fully implement the Treaty itself – ratify the Comprehensive Nuclear Test Ban Treaty which still languishes in the U. S. Senate, propose deeper nuclear weapon reductions and then draw a line in the sand with North Korea. The U.S. National Security Advisor, Thomas Donilon, took a step in this direction when he said recently that the U.S. would "draw upon the full range of our capabilities" to protect against and respond to the threat posed to us and our allies by North Korea. The same policy should apply to Iran as well if it proves to be true that Iran indeed outsourced its nuclear weapon program to North Korea. Iran would in this case, like the DPRK, possibly possess deliverable nuclear weapons. Diplomacy should be tried first, perhaps if it is understood that this time the United States is truly serious it might work. But further proliferation cannot be tolerated. The U.S. should make it unmistakably clear that we consider our core interests to be threatened should these reports about North Korea and Iran prove to be true. In the strongest possible terms the U.S. should enforce the NPT and draw the nuclear weapon state line where it is now – eventually minus North Korea. The alternative to this is JFK's nightmare.