The Chinese Nuclear Weapons Program and its Threat to the United States and Her Allies

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Abstract

Chinese nuclear development has placed China among world class military superpowers, and has made it capable of delivering multiple large nuclear weapons to almost any location in the world. The direct threat from Chinese nuclear weapons depends largely on a country's relationship with China, as well as China's perception of military risk from a given state, however China now has the option of levying the threat of nuclear attack on any state in Asia, Europe, and North America in negotiations. For example, China has used nuclear attack as blackmail against the United States to keep it from meddling in China's Cross-Strait negotiations.

But the greatest threat to the United States and its allies from the Chinese nuclear weapons program comes from years of irresponsible proliferation that have armed dangerous states like Iran, North Korea, Pakistan, and others. Some of these countries support or harbor international terrorist organizations, and thus these states may hand nuclear technology to terrorists. Further, some of these countries have already threatened (implicitly or explicitly) to use force against US allies. Finally, some of these states are conducting their own nuclear proliferation programs that threaten to cause a cascade of technology and democratize nuclear force. This lack of control of nuclear technology will ultimately be the greatest threat to the United States and her allies.

This proliferation may lead to many nuclear threats to the world in the future. Though China has now pledged better control practices, the greatest damage that China could do the the security of the United States and her allies has largely left China's hands.

A Brief History of the Chinese Nuclear Program

In the 1950's, the Chinese government under Chairman Mao chose to "Lean to one Side" – towards the Soviet Union, a friendly Communist government. Along with the United States' decision to declare the exiled Guomindang (GMD or KMT) in Taipei the legitimate government of all of China, the "Lean" decision caused a great rift between the United States and China. This rift caused the two countries to take hostile positions towards each other, and in the context of the Cold War, use of military or nuclear force was a real and significant danger.

Specifically, Mao Zedong was worried about nuclear blackmail from the United States over the Taiwan issue, and accepted assistance from the U.S.S.R. in developing a nuclear weapons program.

The Soviet Union granted to China an experimental nuclear reactor, gas diffusion equipment, a

cyclotron, and many advisors to help the Chinese develop their weapon program¹. Even when the relationship between China and the Sovient Union cooled significantly, China continued its nuclear weapons program on its own, and, much to the surprise of the United States Intelligence Community, was nuclear-capable by 1964. China's great push towards the bomb came to crescendo on October 16 at a desolate hill called Lop Nur. Atop a 102-meter tower, the Chinese detonated a U-235 implosion-type device, codenamed "596," that yielded 22 kilotons².

It was less than three years later that China tested its first thermonuclear device. On June 17th, 1967, the Chinese detonated a 3.3 Megaton Hydrogen bomb at 2960 meters in the air³. The 32 months between first nuclear and first thermonuclear tests is shorter than any other nation's thermonuclear lag.

Beyond 1967, China has further accelerated its nuclear weapons program. The Chinese military quickly developed long-range nuclear delivery systems, targeting systems, and larger bombs. Some of this impressive development has drawn dark accusations: the Cox Report, released in January 1999, accused the Chinese government of stealing design documents for thermonuclear weaponry, Multiple Independently Targetable Re-entry Vehicle (MIRV) technology, and long-range missile technology⁴. The Chinese called the accusations "groundless," and maintained that all nuclear technology was indingenously developed. Nonetheless, the Cox Report led to massive fines of two US companies that had helped China improve the reliability of its ICBMs, as well as individuals who ordained illegal export.

¹Lewis, Xue. China Builds the Bomb

 $^{^2}$ Ibid

³Nuclear Weapons Archive. "China's Nuclear Weapons."

⁴Report of the Select Committee on U.S. National Security and Military/Commercial Concerns with the People's Republic of China

Although struck a blow by the Cox Report, the swift rise of China's nuclear program is impressive, and has brought about a large and advanced arsenal capable of great damage throughout most of the world.

The Current Chinese Nuclear Arsenal

It is not known exactly how many nuclear warheads are in the Chinese military's arsenal. The Chinese government maintains great opacity about the People's Liberation Army (PLA) and the nuclear program in general, so much of the data on China's nuclear arsenal are from intelligence estimates. The Department of Defense and the Nuclear Threat Initiative both estimate 400 warheads in the Chinese arsenal⁵⁶, while the Atomic Forum estimates 130⁷.

These weapons are deployable by aerial bomber, submarine, and missile. The PLA has some modern aerial bombers, but no operational aircraft carriers, and thus can only project these tactical bombers to immediate border neighbors. Long-range capability comes primarily in the form of missiles; the Chinese have only one operational nuclear attack submarine: the Xia, with twelve JL1 Submarine-Launched Ballistic Missiles (SLBMs)⁸.

The Chinese missile program gives the military a wide range of deployment options for nuclear warheads, ranging from Short-Range Ballistic Missiles (SRBMs) to Intercontinental Ballistic Missiles (ICBMs). The DongFeng (meaning "East Wind", shorthand "DF") series of missiles has grown more advanced with time, and constitutes the bulk of the Chinese nuclear deployment force.

⁵Department of Defense. 2000 Report to Congress on PRC Military Power.

⁶Nuclear Defense Initiative. "China Profile"

⁷The Atomic Forum. "China's Nuclear Weapons Program."

⁸Ibid.

The DongFeng models 1 and 2 are retired, and 3 is in the retirement process. The following missiles are currently in service in the Chinese missile arsenal:

Chinese Missiles in Service

The following missiles are currently deployed by the PLA, some of which carry nuclear warheads.

DF-4 (CSS-3)

Type - 2-stage Intermediate Range Ballistic Missile (IRBM)

Launch - Silo

Fuel - Liquid

Range - 4750 km

Payload - 2200 kg conventional or 3 MT nuclear warhead

Quantity - Approximately 20 in service

Notes - To be replaced by DF-31, scheduled between 2010 and 2015⁹

DF-5/DF-5A (CSS-4)

Type - ICBM

Launch - Silo

Fuel - Liquid

Range - 12,000/13,000 km

Payload - 2200 kg conventional or 3 MT nuclear warhead

Quantity - 24-36

Notes - Basis of FB-1 satellite launch rocket¹⁰

DF-11 (CSS-7)

⁹Globalsecurity.org. "DF-4 (the "Chingyu" missile)." http://www.globalsecurity.org/wmd/world/china/df-4.

 $^{^{10}} Global security. org. \ "DF-5." \ \texttt{http://www.globalsecurity.org/wmd/world/china/df-5.htm}$

Type - SRBM

Launch - Road-mobile

Fuel - Solid

Range - 300 km

Payload - 500 kg or 250 kT nuclear warhead

Quantity - 100-250

Notes - Basis for Pakistani Shaheen missile series¹¹

DF-15 (CSS-6)

Type - Single-stage IRBM

Launch - Road-mobile

Fuel - Solid

Range - 600 km

Payload - 500 kg conventional or 350 kT nuclear warhead

Quantity - 150-250¹²

DF-21/DF-21A (CSS-5)

Type - Two-stage IRBM

Launch - Road-mobile

Fuel - Solid

Range - 1800 km

Payload - 500 kT nuclear warhead

Quantity - 50-100

Notes - Basis of the JL-1 $SLBM^{13}$

DF-25

 $^{^{11}} Global security. org. \ "DF-7." \ \texttt{http://www.globalsecurity.org/wmd/world/china/df-7.htm}$

¹²Globalsecurity.org. "DF-15." http://www.globalsecurity.org/wmd/world/china/df-15.htm

¹³Globalsecurity.org. "DF-21" urlhttp://www.globalsecurity.org/wmd/world/china/df-21.htm

Type - IRBM

Launch - Silo

Fuel - Solid

Range - 3000 km

Payload - 2 250 kT MIRV nuclear warheads

Quantity - 10^{14}

DF-31/DF-31A (CSS-9)

Type - ICBM

Launch - Road-mobile

Fuel - Solid

Range - 8,000/10,000+ km

Payload - 1 MT nuclear warhead or up to 3 10-150 kT MIRV warheads

Quantity - 12

Notes - Three-minute preparation time. Basis of JL-2 $\rm SLBM^{15}$

DF-41 (CSS-X-10)

Type - ICBM

Launch - Road-mobile

Fuel - Solid

Range - 12,000-14,000 km

Payload - 3-10 MIRV nuclear warheads

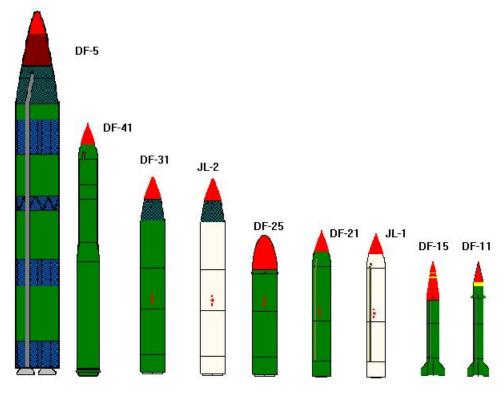
Quantity - 0

Notes - Still under development, and production possibly scrapped. Much still unknown about $\operatorname{design}^{16}$

¹⁴Globalsecurity.org. "DF-25" http://globalsecurity.org/wmd/world/china/df-31.htm

 $^{^{15}} Global security. org. \ "DF-31" \ \texttt{http://www.globalsecurity.org/wmd/world/china/df-31.htm}$

 $^{^{16}} Global security. org. \ "DF-41" \ http://www.global security.org/wmd/world/china/df-41.htm$



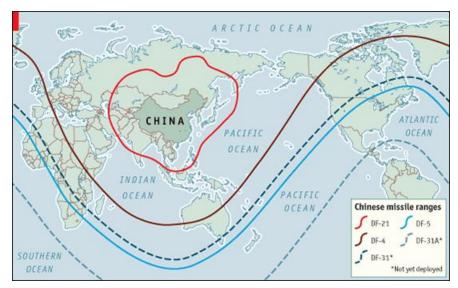
A sketch of the Dongfeng ballistic missile series. Image source: http://www.softwar.net/PRCBM.GIF

The DF-31's range of 10,000 km is enough to hit the United States mainland from China. The DF-41 would be able to target most of the United States. The number of long-range missiles that the Chinese military holds is debated: many sources report China has 12 missiles capable of delivering a nuclear payload to the United States¹⁷ 18, while the Department of Defense estimates 20¹⁹.

¹⁷Chinese Defence Today. "DF-31 Intercontinental Ballistic Missile." http://www.sinodefence.com/strategic/missile/df31.asp

¹⁸Globalsecurity.org. "DF-31." http://www.globalsecurity.org/wmd/world/china/df-31.htm

¹⁹The United States Department of Defense. 2004 Report to Congress on PRC Military Power. pg 37



The ranges of Chinese ballistic missiles. Slightly outdated; The DF-31 and DF-31A are in service. Image source: http://www.armscontrolwonk.com/images/717.jpg

Keeping in mind that China is capable of deploying large nuclear payloads both regionally and globally, one must consider China's recent foreign policies, and the likelihood that these policies will lead to hostilities that significantly increase the risk of nuclear attack for the United States or its allies.

China's Foreign Policy and International Relations

Chinese foreign policy is complicated and has changed drastically over a short period of time, as it has made the transition out of Maoist isolationism into openness.

Regional Relationships

Regionally, China has shifted from being a regional threat to most of its neighbors to an economic leader. Border disputes with India from the 1970's, though unresolved, have not prevented the two

nations from becoming growing trade partners. Recently, China has sent an envoy to India to expand and strengthen their strategic economic partnership. Further, the Chinese border with Vietnam has been demilitarized, many years after the Vietnam war ended. In fact, China's relationship with many of its neighbors has been very strong; even after European countries and the United States condemned China for the Tiananmen Square massacre of 1989, the only regional neighbor to take a seriously negative stance on China's actions was Japan²⁰, but Japan is a particularly tough neighbor for China. Relations with Japan have been tense since the second World War; Chinese citizens protested violently against Japan when Prime Minister Koizumi paid worship to the shrines of Japanese generals who are considered by China to be war criminals. China also worries that Japan will build a nuclear arsenal in response to North Korea, as many in Japan want to amend their constitution to allow an armed forces larger than the Self Defense Force (JSDF). Both powers have sat in a tentative military and political balance for some time.

A Shaky Thaw with the United States

Although the United States failed to recognize the legitimacy of the PRC government for the first 22 years of its existence, Washington and Beijing began a shift in policy in 1971 when Henry Kissinger and Richard Nixon reached out to the PRC government to open diplomatic ties²¹. China and the United States grew into strong economic trading partners, but many issues caused strain. Unlike much of East Asia, the United States responded with condemnation to the Tienanmen Square massacre, as well as other less dramatic human rights violations. When the United States bombed the Chinese

 $^{^{20}\}mathrm{David}$ Shambaugh. "China Engages Asia: Reshaping the Regional Order." pgs4--6

²¹James Mann. About Face. Pgs 28-34

Embassy in Belgrade during its intervention in Bosnia, the Chinese population reacted with fury.

Many Chinese citizens even believe that the bombing was intentional.

The issue that causes the greatest tension between China and the United States is Taiwan. The US seemed to be moving to resolve its conflict with China when Washington withdrew its support of the Taiwanese government as the government of China, and even supported a doctrine of "peaceful resolution" over reuniting the mainland with the island. But the United States continues to stand firm that it will defend the island of Taiwan from unprovoked military attack, and the Bush Administration has vowed to defend Taiwan unconditionally; this has posed serious problems in US-China relations.

Strains Across the Strait

China's military buildup seems to be designed to reserve the right to solve the reunification issue with force if the peaceful method does not achieve the mainland's goals. From the Department of Defense: "Military forces seem focused on preventing Taiwan independence while preparing to compel the island to negotiate a settlement on Beijing's terms. As part of this effort, China seeks to deter or counter third-party intervention in any future cross-strait crisis²²." The Chinese military buildup along the Taiwan strait is massive. Over 700 combat aircraft sit within unrefueled round trip range of Taiwan, and 75 major surface combat ships exist, capable of pressing Taiwan, denying access to third-party militaries, and protecting Chinese supply lines²³. Further, the Chinese have between 710 and 790 DF-11 and DF-15 SRBMs within range of (and aimed at) Taiwan²⁴. This buildup accompanies

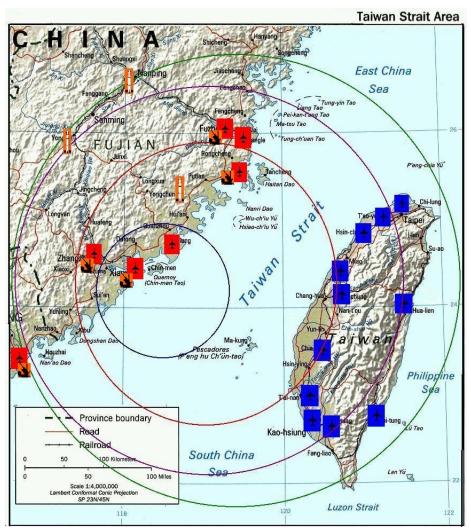
²²Department of Defense. China Military Power Report, 2006. Pg 32

²³Department of Defense. China Military Power Report, 2006. Pg 12.

²⁴Ibid. Pg 11

a 14% increase in amphibious landing craft²⁵, 11 amphibious invasion exercises since 2000²⁶, and a "large-scale, multi-service exercise that dealt explicitly with a Taiwan invasion" in September 2005²⁷. These military policies clearly create an imbalance of power between China and Taiwan, and give China an improved ability to invade. Although China may never need to use military force, the threat of using it can serve as a highly coercive lever against Taiwan in negotiations. China has not been particularly shy in flaunting this.

 ²⁵Ibid. Pg 12
 ²⁶Ibid. Pg 11
 ²⁷Ibid. Pg 11



A map of military buildup in China and Taiwan. Red squares represent PRC airbases, blue squares represent US/Taiwan airbases. Missiles represent launch sites. Other orange and black squares represent anti-air defenses.

Image source: http://home.nycap.rr.com/mismedia/PRCROCmissile/index.htm

In 1996, China held a military exercise in which it fired SRBMs into the Taiwan strait. Though the Chinese called the exercise simply a test of launch capabilities, the missiles fell into the water on both sides of the island, less than 30 miles from each of Taiwan's two largest port cities²⁸. The US Military sent the Seventh Fleet (made up of 2 Aircraft Carriers and accompanying fleets) to intervene

²⁸Senator Inhofe. Testimony before the Senate Armed Services Committee on Missile Defense.

and cease the firing, after concluding that the testing was hostile toward Taiwan. The conflict was resolved peacefully, but created great fear in Taiwan that China intended to cow the Taiwanese or even invade, and it strained relations between China and the United States.



A map of the missile drills conducted by China in the Taiwan strait. Image source: http://www.cnn.com/WORLD/9603/china_taiwan/16/index.html

In early 2005, the Taiwanese government suspended the National Unification Council and National Unification Guidelines, which were designed to aid and accelerate the Chinese peaceful re-unification process²⁹. Clearly, this move upset and shook the PRC government. Many analysts were not sure whether or not this move would provoke the Chinese to attack on the grounds of Taiwan moving toward independence, but only verbal condemnations came of this event.

²⁹Department of Defense. Chinese Military Power Report, 2006. Pg 11.

Although the suspension did not lead to conflict, it caused great strain in China's bilateral relationships with Taiwan and the United States. There was talk of military action or intervention, and members of the Chinese military reacted strongly.

The United States was reluctant to take a stance. The Chinese had already made it clear that there would be grave consequences for US intervention in a Chinese military operation in Taiwan. According to testimony by Senator Inhofe in 1998, a Chinese general said that he was unconcerned about the United States getting involved in the Taiwan incident, "because they'd rather defend Los Angeles than Taipei³⁰." A few years later, in 1998, Minister of Defense Chi Haotian said that war with the United States had become "inevitable³¹."

Military relations have not necessarily improved over time, and the suspension of National Unification efforts brought a new round of warnings from China. In July 2005, Major General Zhu Chenghu said "if the Americans draw their precision-guided ammunition on the target zone in China's territory [that is, Taiwan], I think we will have to respond with nuclear weapons³²." This was not the first time that members of the Chinese military or government had threatened the use of nuclear weapons in the context of the Taiwan issue³³, but the Chinese government officially states that the General's comments were his own and did not reflect the views of the Beijing. Further, the government continues to declare a "no first use" policy—that is, it vows not to use nuclear weapons until an entity has struck with them first³⁴.

³⁰Senator Inhofe. Testimony before the Senate Armed Services Committee on Missile Defense.

³¹Ibid.

³²Department of Defense. Military Power of the People's Republic of China, 2005. Pg 9

 $^{^{33}}$ Ibid. Pg 10

³⁴Ibid. Pg 10

The Threat from China

Ultimately, the Chinese government, despite its obvious tensions with Washington, is unlikely to be a serious nuclear threat to the United States. China's foreign policy may not align with that of the United States, but Beijing is unlikely to approve of the use of such catastrophic and widely-condemned weapons. This is mostly because China has become a stakeholder in the global system (especially the global market), and has stronger trade relations with the United States in particular than it does with any other country. Many foreign businesses own factories and plants in China, and the supply chain of much of East Asia deeply integrates the interests of the Chinese government with those of foreign governments, including the United States and even Taiwan. The Chinese government's legitimacy is based largely on its spectacular economic growth, and China hopes that it will be able to rise peacefully and become a leading world power. If it were to use nuclear weapons on the United States in a Taiwan conflict, it would surely lose most or all trade from North America, the European Union, Japan, South Korea, and other countries. China's export-based economy would collapse, and the internal strain and unrest that the government already deals with might tumble into uprising. The consequences of use of nuclear weapons against the United States and her allies are so high that the threat of Beijing launching them is reasonably low.

Nonetheless, the United States should lay some concern to China's arsenal. The Chinese central government is small and puts a great deal of operational power and authority into its local extremities, and central policies are sometimes ignored or run-around; there is no hegemonic hierarchical control³⁵. Further, the Chinese people are incredibly nationalistic (as shown by the fierce reactions against the

³⁵Edward Steinfeld. The Rise of China.

bombing of the Belgrade Embassy and Koizumi's visit to war criminals' shrines), and may therefore be prone to making impassioned decisions that contradict more conservative Chinese central government policies. The members of the military that suggested conventional or nuclear war with the United States may not consider China's economic interests to be as important as the occupation of Taiwan or China's dignity and integrity, and may act independently.

The DF-31 missile has a three-minute preparation time and is launched from a relatively simple truck. The hurdles between an overzealous general and the launch of a nuclear missile are relatively few. If the Chinese Second Artillery Corps (in command of the Chinese ballistic missile program) has one or more zealous anti-American generals, they may defy government policy in action, as they have defied it in word in the past. And with a three-minute preparation time, the DF-31 could be launched well before the central government could be warned. The Chinese government must be wary not to press nationalism too hard upon its people, and must make its rules and laws clearer, as well as enforce them, if it expects its localities and its military to abide by them. Otherwise, there may very well be dark consequences, and great damage may be done to China and to the world.

But internal disobedience is not the only threat to the United States with regard to the Chinese nuclear weapons program. The Chinese have had a long history of proliferation, and have given weaponry and technology to many states that pose a significant threat to the United States.

The Chinese Policy of Proliferation

China has sold nuclear and ballistic missile technology to many dangerous states throughout the world, including Libya, Algeria, Pakistan, Iran, and North Korea. Each of these countries has shown

hostility to the United States and its allies, and many have participated in their own policies of proliferation. In this sense, China has begun a "cascade of proliferation," in which countries to whom it gave nuclear or missile technology have spread this technology to more states and organizations with hostilities towards the United States. It is this proliferation policy that may be the most damaging to the United States, by arming countries whose foreign policy is specifically aimed at supporting America's enemies or destroying its allies.

Aiding Libya's Weapons Program

Although Libya's nuclear weapons program has come to a halt, it caused Washington great anxiety for some time. "Firms in China provided missile-related items, raw materials, and other help to... Libya³⁶." This sort of deal with Libya was almost certainly financial, and provided Libya help with its intermediate range ballistic missile program, which proved to be a great threat to the stability of the North African region for some time.

Aiding Algeria's Weapons Program

China allegedly assisted Algeria's nuclear weapons program as well, though this program has also been coerced to a halt by international pressures, including sanctions. The Washington Times claimed that "Algeria [was] developing a nuclear weapons program with the help of the Chinese." The State Department retorted that the help that the Chinese gave Algeria was "nuclear-related," but not necessarily "weapons-related³⁷." China's assistance here may not have had nuclear intent.

³⁶Jim Garamore. "Is There Really a Ballistic Missile Threat?"

³⁷David Albright. "Algeria: Big Deal in the Desert?"

Aiding Pakistan's Weapons Program

Pakistan's weapons program is much more dangerous, and still active. Pakistani nuclear scientist A. Q. Khan used a network of connections and spies to steal enrichment centrifuge technology from URENCO, and also exploited connections in China to purchase missile and weapon technology.

Evidence suggests that the Chinese government assisted Pakistan in turning its enriched uranium into an effective weapon. According to the Washington Post, "US intelligence operatives secretly rifled Dr. Khan's luggage... to find the first concrete evidence of Chinese collaboration with Pakistan's [nuclear] bomb effort: a drawing of a crude, but highly reliable, Hiroshima-sized weapon that must have come directly from Beijing, according to US officials."

China also assisted the Pakistanis in developing their ballistic missile program, giving them technology and expertise³⁸. Theodore Postol, in a personal interview, asserted that Pakistan received designs for effective solid-fueled ballistic missiles from China.

Pakistan's nuclear weapons program is particularly dangerous. Pakistan's relationship with India is highly strained, and has resulted in border clashes, terrorist attacks, and threats that have driven India and Pakistan to the brink of war. And after each country tested a nuclear bomb (Pakistan's was dubbed the "Chagai-1," India's the "Smiling Buddha"), they have proven a particularly potent threat to their region. With China's help, Pakistan has developed and built the Shaheen-1 and Shaheen-2 missiles, which are pointed at India right now, but are capable of hitting many countries in the surrounding region.

³⁸www.nti.org/e_research/profiles/China/index.html



The range of Pakistan's and India's nuclear-capable ballistic missiles. Image source: http://news.bbc.co.uk/1/hi/world/south-asia/3015085.stm

Additionally, there is no guarantee that the Pakistani government is the only threatening organization that will have control of these nuclear missiles. After failures in the War in Afghanistan, the Taliban found footing in northwestern Pakistan, and is currently at an uneasy peace with the government. But the Taliban's power may disrupt the Pakistani government if this power is left unchecked. If this happens, Pakistan's nuclear weapons may very well find their way into the hands of the Taliban, or the hands of Pakistani warlords that would rise into the vacuum left by the government. Pakistan's instability may create a great deal of unforseen proliferation.



Wahiristan, the region of Pakistan occupied by the Taliban Image source: http://www.atimes.com/atimes/South_Asia/images/pak-af-saleem.gif

Pakistan has also been crucial to the further deliberate proliferation of nuclear and missile technology. A. Q. Khan gave stolen URENCO centrifuge designs to Iran in a 1986 visit, and the IAEA later found them. Libya also gave up a handful of Pak-1's willingly, admitting it had bought them from Khan³⁹. Pakistan's deliberate proliferation efforts have increased the nuclear weapon deployment capabilities of multiple states dangerous to the United States, and have put many regions of the world at risk.

Aiding Iran's Weapons Program

Iran's nuclear weapons program is probably years from being ready to test a bomb. Nonetheless, Iran is almost certainly pursuing nuclear weapons capabilities, despite attesting that they are only seeking

³⁹Bill Powell and Tim McGirk. "The Man Who Sold the Bomb; How Pakistan's A.Q. Khan Outwitted Western Intelligence to Build a Global Nuclear-Smuggling Ring That Made the World a More Dangerous Place."

peaceful nuclear power. In February 2006, the French Foreign Minister Phillipe Douste-Blazy said that "no civilian nuclear programme can explain the Iranian nuclear programme. It is a clandestine military nuclear programme⁴⁰." Washington has also accused Iran of trying to develop nuclear weapons, calling for UN sanctions to deal with the situation. Iran's ballistic missile program was largely developed by China⁴¹ 42, and it received most of its uranium enrichment help from Pakistan. If Iran is able to achieve nuclear weapons capability, it will become a serious threat to its region, some members of which are US allies.

Iran's ballistic missile program is already capable of delivering nuclear warheads at a significant range. Iran has between 25 and 100 Shahab-3 IRBMs, which have a range of 2400 km. They are developing the Shahab-5, an ICBM which has a 10,000 km range⁴³. Both of these missiles are capable of hitting Israel, Saudi Arabia, Afghanistan, and Iraq, all US military allies.

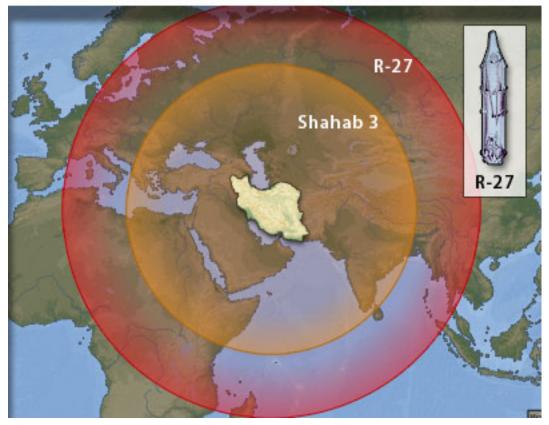
 $^{^{40}\}mathrm{CNN}.$ "France: Iran program military."

⁴¹www.nti.org/e_research/profiles/China/index.html

⁴²Jim Garamore. "Is There Really a Ballistic Missile Threat?"

⁴³John Pike. "X-55 Long Range Cruise Missile."

MISSILE RANGE FOR IRAN'S R-27 AND SHAHAB 3



The ranges of Iran's current ballistic missiles.

Image source: http://www.stratfor.com/products/premium/read_article.php?id=265434

The Iranian government has also implied that it may deploy its ballistic missiles. It has pleged to "wipe Israel off the map," and believes that "Israel must be eradicated from the annals of history⁴⁴." Further, Iran supports numerous terrorist organizations both politically and financially, including Hamas, Hezbollah, and Islamic Jihad, to whom it may provide nuclear weaponry to attack the United States or its allies⁴⁵. This possibility is particularly dangerous, because it is much harder to hold a scattered terrorist organization accountable than a government, and scattered organizations are

⁴⁴Spec Information Bulletin. "Iran Calls for the Destruction of Israel."

 $^{^{45}}$ Statement of Mark Gasioranski to the National Commission on Terrorist Attacks Upon the United States, July 9, 2003.

extremely difficult to find and retaliate against. If anti-Israeli and anti-US terrorist organizations are able to acquire nuclear weapons, they are likely to use them to create as much death and fear as possible.

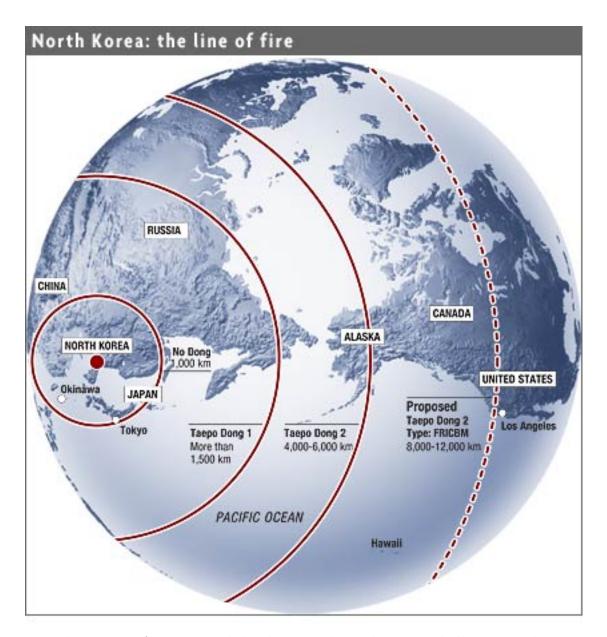
Aiding North Korea's Weapons Program

North Korea's nuclear program is particularly interesting and dangerous. North Korea has recently tested its most advanced nuclear missile, the Taepo Dong 2, though with very little success. Further, it detonated its first nuclear wepaon, a gun-barrel type, underground, yielding approximately a kiloton. Although North Korea's tests are not necessarily impressive, they show that the Pyongyang has both missile and weapon technology that merely require refinement. North Korea's posture towards the United States and the UN is hostile, and it has considered sanctions against it tantamount to acts of war. Kim Jong II is erratic and prone to wild decision-making, and there is a significant risk that North Korea may deploy a nuclear device, when ready, to punish or browbeat the United States.

North Korea has received a great deal of expert help and technology from China in developing its ballistic missile program⁴⁶ ⁴⁷, and may soon be able to hit the United States with a ballistic missile capable of delivering a nuclear warhead. If the Taepo Dong 2 works properly, it will be within range of hitting many large cities on the west coast of the United States.

⁴⁶Jim Garamore. "Is There Really a Ballistic Missile Threat?"

 $^{^{47} {\}tt www.nti.org/e_research/profiles/China/index.html}$



The ranges of current and developmental North Korean ballistic missiles. Image source: http://www.ft.com/cms/s/2ad4f494-0c1b-11db-86c7-0000779e2340.html

North Korea is currently capable of delivering nuclear weapons to Japan with the fully functional No Dong and Taepo Dong 1 ballistic missiles. Both missiles could hit Tokyo, Japan's most populated city, and devastate its civilian population. This possibility is particularly threatening to the United States, as Japan is her most important ally in the East Asian region. Japan is also considering

building up its own nuclear arsenal to counter that of North Korea, which will frighten China and other East Asian powers, and perhaps cause a military destabilization or an arms race. North Korean politics, and Kim Jong II in particular, are unpredictable enough that it may be necessary to target North Korea's nuclear weapons arsenal, as opposed to simply use diplomacy to curb Pyongyang's hostile tendencies.

Improving Proliferation Policy

China's proliferation policy has waned, and its government and firms have become significantly more responsible with respect to nuclear weapons in the last decade. "In 2000, China pledged not to assist any country in the development of nuclear-capable ballistic missiles. In August 2002, China issued regulations and a control list restricting the export of missiles and missile technology⁴⁸." China has also taken more substantial, official steps. In 1996, China signed the Comprehensive Test Ban Treaty, and has not tested a nuclear weapon since. In 1984, China joined the International Atomic Energy Agency (IAEA), and signed the Nuclear Non-Proliferation Treaty (NPT) in 1997, and pledged to halt the export of nuclear technology to un-safeguarded facilities⁴⁹. China's steps towards nuclear responsibility have been reasonable, and have helped establish China as a legitimate nuclear weapons state. But its past acts of proliferation still haunt the United States and the world.

 $^{^{48} {\}tt www.nti.org/e_research/profiles/China/index.html}$

 $^{^{49}}$ Ibid.

The Great Threat of the Cascade of Proliferation

China's nuclear arsenal, though extensive and technologically impressive, is unlikely to pose a grave threat to the United States or her allies. It is possible, though unlikely, that rogue Generals in the Chinese PLA will acquire nuclear weaponry armed on truck-based Dong Feng-31 ICBM's, but because it is in China's best interest to control its generals, the risk of this happening is fairly small. It is not China that directly threatens the United States, but all the countries to whom China has helped in building nuclear weapons or ballistic missiles. China may have lacked the foresight to see what kind of destabilizing effect its relationships with Pakistan, Iran, and North Korea would have on the Central Asian local region, the East Asian local region, the United States, and the world. These countries all have unstable government structures, hostile foreign policies, and threats against the United States or her allies. Further, Iran supports and Pakistan harbors terrorist organizations who may acquire these weapons and seek to use them upon the Unites States and her allies. These terrorist organizations are particularly dangerous both because they are non-deterrable and difficult to coerce militarily, due to their scattered, non-state natures. They may also further spread this technology for the vital funding that allows them to operate. Pakistan has already participated in its own extensive proliferation programs with Libya and Iran, and may participate in more in the future.

This forces us to consider the very real threat of democratization of weapons of mass destruction. If small, non-state organizations and rogue states are capable of acquiring and deploying nuclear weapons, the chances that a nuclear weapon will be deployed will be much higher. When a country has a stake in the status quo, large economic interests in trade and international cooperation, and a reasonable, negotionable foreign policy (like the five currently declared nuclear powers: the US, the

UK, France, Russia, and China), this country is far less likely to deploy or threaten to deploy nuclear weapons to another reasonable government to achieve its ends. But unreasonable and murderous organizations like Al-Qaeda will not operate logically or in the interest of stability or peace. Instead, they will seek to destabilize the United States or her allies if given the opportunity to deploy weapons of mass destruction, putting the United States at great risk, should proliferation flow further. Though other countries are responsible for nuclear proliferation (most glaringly Russia, after the fall of the Soviet Union), China is to blame for a great deal of distribution of nuclear and ballistic missile countries to dangerous states. China has, in part, begun a nuclear proliferation cascade that distributes these technologies far beyond what China intended. We do not know where this cascade will halt, and without intervention, these technologies may continue to spread for some time. This cascade has put the United States and her allies in danger of nuclear attack. The damage that the Chinese nuclear program will do to the United States and her allies is no longer strictly under Chinese control, and we may simply be waiting for the consequences of China's past actions to bloom.

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