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Three Scenarios for China's Nuclear Doctrine and Non- Proliferation Policy

How will China's nuclear doctrine and non-proliferation policy develop between now and the year 2005? This chapter will consider three scenarios.

MAINTENANCE OF THE STATUS QUO

A major policy shift by a great power generally occurs only after some dramatic event or series of events. The Indian nuclear tests of 1998 were such an event in the minds of China's foreign-policy leaders, who were particularly disturbed because India appeared to treat China as its primary threat. Yet both governments have tried to prevent a free fall in their relationship, and an actual nuclear confrontation between India and China in the near future remains highly unlikely. China will have at least five years to monitor the development of India's nuclear forces and to assess any possible nuclear threat to China. Until a new nuclear security pattern fully emerges in South Asia, China will most likely maintain its current nuclear policies and its current modernization plan, including the development and deployment of new DF-31 and DF-41 missiles.

India remains a poor country, Chinese analysts believe, and its nuclear programs will continue to be restrained by limited budgets. And while China is concerned about the Indian nuclear tests, it is also inured to the nuclear threat after having lived with the existence of Soviet and American nuclear warheads for years.⁹⁶

Chinese scientists also have doubts about India's declared nuclear capabilities. They detected the three low-yield (200, 300, and 500 ton) tests, but questioned whether India's nuclear devices have been developed into usable weapons. Because the international seismic monitoring network did not even record the declared tests on May 13, Chinese scientists suspected that the declared yield of 500 tons of TNT was actually less than 50 tons. Chinese scientists were uncertain why India exaggerated its nuclear capabilities or whether it would conduct more tests. One analysis made by Chinese scientists was that the Indian tests attempted to perfect two designs: one for an enhanced atomic bomb, using various boosters to increase the yield of the plutonium core; the other for a thermonuclear device with many times the yield of a simple atomic bomb. Based on the available data, it seems that, despite Indian claims of success, they did not succeed in igniting a thermonuclear reaction.⁹⁷

Another analyst suggested that China should pursue an independent foreign policy and exchange views with India. He argued that the South Asian nuclear tests have speeded up the transition to a multipolar world. According to his analysis, a nuclear balance between Pakistan and India is perhaps favorable to China's security interests. He encouraged the Chinese government to learn to live with another nuclear neighbor and to use the opportunity to stabilize relations with the South Asian nations.⁹⁸

No Major Changes in the Development of Nuclear Doctrine and Forces

China's National Defense, a white paper issued by the Information Office of the State Council in July 1998, two months after India's nuclear tests, is perhaps the best official exposition of China's nuclear doctrine and non-proliferation policy. The white paper stated that, "India flagrantly carried out nuclear tests," that Pakistan then followed suit, and that these nuclear tests have "produced grave consequences on peace and stability in the South Asian region and the rest of the world."⁹⁹

In general, however, the white paper assessed the international-security situation by stating that, "peace and development are the major themes of the present era. . . . The present international-security situation has continued to tend toward relaxation." China's

fundamental task, the white paper continued, is to conduct economic construction, while national defense should remain “subordinate to and in the service of the nation’s overall economic construction.” A key element of China’s defense policy is “active defense,” that is, “striking only after the enemy has struck.” According to the white paper, “China possesses a small number of nuclear weapons, entirely for meeting the needs of self-defense.”¹⁰⁰

The white paper appears to be consistent with China’s defense policy since the late 1970s, when China started its modernization drive. The Chinese leadership has been clearly aware of economic constraints on China’s defense development. In the 1980s, Deng Xiaoping urged the PLA to “exercise patience,” and in the mid-1990s, Jiang Zemin warned against a large military budget. Commenting on the military-development strategy elaborated in the white paper, Chi Haotian, the defense minister, said that, “We should not blindly worship advanced weaponry. Rather, we should try to defeat a better-equipped enemy with whatever equipment we have at the moment.”¹⁰¹ It is likely, therefore, that China will maintain its current level of nuclear forces and will continue to adhere to its policy of no first use of nuclear weapons and no use or threat of using nuclear weapons against non-nuclear-weapon countries or zones. China will also, under this scenario, continue to observe the CTBT, NPT, and other nuclear regimes.

As part of the current national strategy, China will continue its nuclear-weapons modernization (see Table 3). It is estimated that China’s stockpile contains more than 3 tons of weapons-grade, highly enriched uranium and 1 ton of separated plutonium, with which China can make an additional 200 nuclear weapons.¹⁰²

In July 1998, one news account claimed that China had produced eight more DF-5 Mod 2 ICBMs.¹⁰³ If that number is confirmed, China will deploy at least 28 ICBMs by the year 2000. At the same time, China continued to test the DF-31 missile in 1998 as part of its strategic-weapons modernization effort.¹⁰⁴ The DF-31 is powered with solid-fuel propulsion and has a range of 8,000 kilometers (5,000 miles). First tested in 1995, the DF-31 may be deployed in the year 2000 armed with multiple warheads. China is also building the DF-41 missile with a range of 12,000 kilometers (7,500 miles).¹⁰⁵ (The DF-41 will eventually replace the DF-5 ICBM.) If deployed, the DF-31 and the DF-41 will make China only the second country after Russia to deploy mobile long-range missiles.¹⁰⁶

The new Type 094 nuclear submarine is expected to be completed by the year 2005; it will carry 16 Julang-2 missiles (a sea-based version of DF-31 missiles) with a striking range of 8,000 kilometers (5,000 miles). It has been reported that China is also attempting to develop a multiple, independently targeted reentry vehicle (MIRV).¹⁰⁷

Some studies estimate that by 2010, China will increase the number of its ICBMs to 50–70, with MIRVed missiles deployed on mobile launchers and in hardened silos. It may deploy up to six second-generation SSBNs equipped with MIRVed missiles that can reach targets 8,000 kilometers (5,000 miles) away. This sea power will enable China to cover most of Asia, especially locations close to the Chinese mainland. In addition, China will possess a large number of tactical nuclear weapons with ranges of up to 900 kilometers (600 miles).¹⁰⁸

According to a *Xinhua* report, China has built two special wind tunnels in Sichuan Province for testing its space shuttle, carrier rockets, and strategic missiles.¹⁰⁹ In 1999, China will attempt to launch its first manned spaceship.¹¹⁰

In early 1998, the PLA conducted a round of exercises whose purpose, according to Chinese officials, was to prepare the country to win a regional war through the use of high-tech weapons. PLA military commands also opened training classes across the country in which senior officers learned about advanced military technology. The last massive military exercises were held in the 1980s to coordinate all services and to enhance the command skills of PLA officers.¹¹¹ Yet, as one weapons specialist commented, the PLA still needs to improve its readiness for C³I (command, control, communications, and intelligence).

It is worth noting that military experts, such as those proficient in guided-missile technology, have begun to serve at the decision-making level of combat units in the Second Artillery. Chinese political leaders believe that military technological expertise can help reduce errors in policy making and that it will play a significant role in promoting the modernization of Chinese nuclear forces.¹¹² That indicates that although the PLA has lost some political power in the most recent government reform, it is gaining more influence on China's defense decision making, including such critical decisions as China's response to India's nuclear development.¹¹³

TABLE 3
Chinese Strategic Nuclear Forces, 2005–2010

Type	Range/Payload (Km/Kg)	Total Forces	
		1998	2005–2010
Land-Based Ballistic Missiles			
DF-3/3A (CSS-2)	DF-3: 2,650/2,150 DF-3A: 2,800/2,150 Warhead: 3.3 MT	38	38 +
DF-4 (CSS-3)	4,750/2,200 Warhead: 3.3 MT	10 +	~10
DF-5/5A (CSS-4)	DF-5: 12,000/3,200 DF-5A: 13,000/3,200 Warhead: 4–5 MT	~20	~28
DF-21/21A (CSS-5)	DF-21: 1,700/600 DF-21A: 1,800/600 Warhead: 200–300 KT	30	30 +
DF-31	8,000/700 Warhead: 100–200 KT	Under development	N/A
DF-41	12,000/800	Under development	22 +
Strategic Submarines and Submarine-Launched Ballistic Missiles			
Julang-1 (CSS-N-3)	1,700/600 Warhead: 200–300 KT	12	~12
Julang-2	8,000/700 Warhead: 100–200 KT	Under development	<96
SSBN	N/A	1	<6

Note: Nuclear warhead yields are expressed in kilotons (KT) and megatons (MT), indicating an explosive force equivalent to that amount of TNT.

Sources: Estimates are based on data in Jones and McDonough, *Tracking Nuclear Proliferation*, 1998, p. 63; William M. Arkin, Robert S. Norris, and Joshua Handler, *Taking Stock: Worldwide Nuclear Deployments, 1998* (Washington, D.C.: National Resources Defense Council); Patrick J. Garrity, "Nuclear Weapons and Asia-Pacific Security: Issues, Trends, and Uncertainties," *National Security Studies Quarterly*, vol. IV, issue 1, Winter 1998, p. 46; Bill Gertz, "China Adds 6 ICBMs to Arsenal," *Washington Times*, July 21, 1998 (Internet edition); "New Declassified 1998 Report on the Ballistic Missile Threat," *Proliferation Brief*, (Washington, D.C.: Carnegie Endowment for International Peace), vol. 1, no. 13, September 28, 1998.

The current Chinese plan for nuclear modernization was not explicitly designed to counter a nuclear threat from India. Nonetheless, the possibility that its southern neighbor is developing nuclear weapons and delivery systems has given new urgency to Chinese debates about upgrading its nuclear forces. Since the Ninth National People's Congress in March 1998, China has restructured its nuclear-weapon policy-making community, enacted systematic new rules on nuclear exports, and taken other initiatives to confront the new threat to its security. A closer look at China's internal policy structure will help explicate these developments.

Internal Policy Structure

The National People's Congress, the highest organ of state power, decides on questions of war and peace and other defense-related issues. The president of the state proclaims a state of war. The State Council directs and administers national defense, and the Central Military Commission (a civilian agency) commands the nation's armed forces, including its nuclear forces.¹¹⁴ In other words, the civilian government exercises tight control over the PLA.

At the operating level, the PLA is organized into four parts: the General Staff Department, the General Political Department, the General Logistics Department, and the General Armament Department, the last of which was established in April 1998 to integrate the country's historically separate ground, naval, and air forces' logistics and equipment purchases, to simplify joint operational procedures, and to reduce unnecessary expenditure.¹¹⁵ (The nuclear forces, the so-called Second Artillery, are often not listed as a separate service, but they must have had similar problems, because they too are now under the joint system.)

The establishment of the General Armament Department is both a military reform and part of the defense modernization. As one of its officers said in June 1998, the PLA needs to follow—and to match—military modernization trends in other countries and to prepare for the future possibility of high-tech wars. The establishment of the department, according to this officer, facilitates united leadership by the Central Military Commission over weaponry and equipment building.¹¹⁶

General Cao Gangchuan is director of the General Armament Department; Lieutenant General Li Jinai is its political commissar.

Interestingly, both officials were former heads of COSTIND, which itself has undergone a major restructuring. Whereas in the past COSTIND was responsible both to the State Council and to the Central Military Commission, it now reports only to the State Council. Liu Jibin, the current minister of COSTIND, is a civilian (unlike General Cao Gangchuan, his predecessor). According to Liu, the reorganized COSTIND has three functions: to administer the national defense industry formerly under the administration of the old commission, to administer national defense construction formerly under the administration of the National Defense Department of the State Planning Commission, and to assume all the functions of five former big corporations—the China National Nuclear Corporation, Aviation Industries of China, China Aerospace Corporation, China North Industries Group, and China State Shipbuilding Corporation.¹¹⁷ COSTIND is also empowered to make laws and regulations for defense science and technology development, to supervise the management of science and technology for national defense, and to draw up development plans for weapons production and research.¹¹⁸ According to this author's interviews in Beijing in October 1998, the PLA now orders armaments from COSTIND.

As one General Armament Department officer pointed out, the establishment of that department and the reorganization of COSTIND are expected to change fundamentally the country's defense industrial structure and its weaponry and equipment management.¹¹⁹ The change denotes the strengthening of civilian leadership over the PLA. It probably will take some time for the two new organizations to develop a smooth working relationship. The international significance of the domestic restructuring is that China may now be more able to implement nuclear security regimes effectively.

Corresponding to the structural adjustments, China has also taken executive and legislative measures to tighten its nuclear export controls. In May 1997, the State Council issued a Circular on Strict Implementation of China's Nuclear Export Policy. China claims that it follows three principles with respect to nuclear exports: that it exports nuclear materials for peaceful purposes only; that it accepts the supervision and safeguards of the IAEA; and that it forbids the transfer of nuclear materials to any third country without its consent. In addition, the circular emphasized that, "the nuclear materials, nuclear equipment and related technology, as well as non-nuclear

materials for reactors and nuclear-related dual-use equipment, materials and relevant technologies on China's export list must not be supplied to or used in nuclear facilities not subject to IAEA inspections. No agency or company is allowed to conduct cooperation or exchange of personnel and technological data with nuclear facilities not under IAEA inspections."¹²⁰

In September 1997, the State Council issued a Regulation on Nuclear Export Control, calling it "another important step" in enhancing and improving the management of China's nuclear exports. The regulation stipulates that nuclear exports will be the responsibility of departments appointed by the State Council; no other departments and individuals are allowed to engage in related activities. The Chinese government retains the right to terminate the export of approved nuclear materials if the recipient violates the regulation or if there is any danger of nuclear proliferation.¹²¹

In establishing a law on nuclear non-proliferation, China has referred to international norms and the U.S. model. In April 1998, a Chinese delegation visited the United States to study the U.S. nuclear-export-control law and categories of banned or restricted items. An official in Beijing said, "An export law which is a national law passed by the Standing Committee of the National People's Congress has much greater power than a regulation concerning enforcement of non-proliferation." He added that violators could face lawsuit and criminal punishment. The official said, however, that China would not allow American personnel to inspect enterprises suspected of exporting banned nuclear items, which he claimed "would infringe our sovereign rights."¹²²

The record of Chinese nuclear proliferation has been the focus of sharp criticism by the United States and is a sore spot in U.S.-Chinese relations. At the same time, legal reforms in China to tighten nuclear-export controls have not received necessary attention in the United States. Among the most comprehensive of these reforms are the Regulations for Controlling the Export of Dual-Use Nuclear Goods and Relevant Technologies, issued by the State Council of the PRC in June 1998. The regulations stipulate that:

- The state exercise strict control over the export of dual-use nuclear goods and related technologies, and that it strictly abide by the international obligations it undertakes not to proliferate nuclear weapons;

- The state implement the system of licensing the export of dual-use nuclear goods and related technologies;
- The licensing system shall adhere to the following guidelines: (1) the recipient guarantees not to use dual-use nuclear goods and related technologies from China to conduct nuclear explosions, (2) the recipient guarantees not to apply dual-use nuclear goods and related technologies from China in nuclear facilities not safeguarded and supervised by the IAEA, and (3) the recipient guarantees not to transfer Chinese dual-use nuclear goods and related technologies to a third party without the Chinese government's consent;
- Parties engaged in exporting dual-use nuclear goods and related technologies shall register at the Ministry of Foreign Trade and Economic Cooperation. Without registration, no unit or individual may export dual-use nuclear goods and related technologies;
- The Ministry of Foreign Trade and Economic Cooperation shall submit applications to the State Council for approval of exports of dual-use nuclear goods and related technologies that have a major impact on national security, public interests, and foreign policy;
- The Ministry of Foreign Trade and Economic Cooperation, after consulting the Ministry of Foreign Affairs and the State Atomic Energy Authority, may suspend or revoke the export license of a party that violates its guarantees or presents the danger of nuclear proliferation;
- Any individual who violates the regulations and whose conduct constitutes a crime will face criminal prosecution.¹²³

Despite existing controversies about China's missile and nuclear proliferation, the evidence also suggests that China is taking systematic measures to fulfill its international obligations. The international community has criticized China's strategic ambiguity and ineffective export-control mechanisms. The ongoing military reforms and the publication of the white paper discussed above are certainly steps in the right direction.

China will most likely maintain its current policy of limited warfare and limited nuclear deterrence over the next five years. Fundamentally, Beijing still considers economic development its top priority. To achieve a higher level of economic modernization, China

needs both time and a stable environment. The Chinese leadership decided long ago how to apportion its financial resources between economic development and improvements in its nuclear force. At the same time, China seems to believe that it is not in its interest to assist any new nuclear-weapon power along its borders, including Pakistan. The administrative and legal establishment of new nuclear-export controls may help reduce the organizational disorder that existed in the past.

As one Indian scholar noted, "despite the entire exercise of nuclear testing being justified on the basis of the China factor, China's response has been very encouraging, gradual, and very balanced. [It is] the country most affected by India's tests and could have reacted in still worse manner." Commenting on China's nuclear transfer to Pakistan, some scholars believe that China has played "a subtle balancing game and done nothing that would radically change the balance of power on the [South Asian] subcontinent."¹²⁴

NUCLEAR BUILDUP

It is hard to imagine that China would do nothing if India deployed a significant number of nuclear weapons or targeted nuclear weapons at China. Under the second scenario, one should expect China at a minimum to move its own warheads toward India. Pressure from the PLA would probably precipitate an additional buildup to maintain China's current nuclear advantage.

The Impact of Possible Indian Nuclear Deployments

A 1997 report by the U.S. Department of Defense stated that India might have a stockpile of fissile material sufficient for producing several nuclear weapons that could be assembled in a short time. Other analyses indicate that as of 1995, India had enough weapons-grade plutonium to produce at least sixty-five early-generation nuclear weapons.¹²⁵ Since 1983, India has launched an Integrated Guided Missiles Development Program aimed at the indigenous design and production of two major missile systems; these are now expected to be completed and deployed within five years (see Table 4).

Since the nuclear tests in May 1998, Indian leaders have made no secret of their intention to rely on nuclear weapons as a means of

TABLE 4
Indian Missile Programs

Name and Type	Features
<i>Agni</i> intermediate range ballistic missile	First test flight in 1989; striking range 1,500–2,500 km; demonstrated reentry capability; <i>Agni II</i> estimated range, 3,500 km.
<i>Prithvi</i> surface-to-surface tactical missile	First test flight in 1988; striking range 150–250 km; controlled and guided from launch to target.

Source: R. K. Jasbir Singh, ed., *Indian Defense Year Book 1997–98* (Dehra Dun: Indian Defense Year Book, 1997), pp. 495–503.

national security. This, of course, represents a fundamental shift in India's strategy. Jaswant Singh, senior adviser on defense and foreign affairs to Indian Prime Minister Vajpayee, explicitly expressed India's view that, "nuclear weapons remain a key indicator of state power" and that nuclear deterrence will work for India as it has for the West.¹²⁶ Many Indians still believe that China is a constant source of danger and that India must develop the capability of deterring a Chinese missile attack on India.¹²⁷

If India does deploy nuclear weapons, it is conceivable that it will follow other nuclear-weapon powers in building a nuclear triad consisting of land-based missiles, bombers, and submarines. It is well known that nuclear technology and facilities can be used for both civilian and military purposes. According to one account, if the Indians add their commercial-reactor plutonium to their fissile material, they can build at least 390 and perhaps as many as 470 nuclear weapons, making India a larger nuclear force than Britain and on the same level as France and China.¹²⁸

Among the three components of a potential Indian nuclear triad, the air force will perhaps become the earliest delivery option for nuclear weapons. It is interesting to note that in 1974, when India conducted its first nuclear test, its air force acquired the Anglo-French Jaguar, a deep-penetration strike aircraft capable of conducting nuclear missions. Later, India purchased Mig-27 and Mirage-2000 aircraft, both of which could be used to carry nuclear bombs. None of these aircraft could fly deep into China.

After India conducted the 1998 nuclear tests, its government approved the purchase of ten Su-30 aircraft, in addition to the forty it already had. Some of these aircraft have superior avionics and weapons systems. The Indian air force will upgrade these aircraft, but it has made no mention of using them for nuclear missions.¹²⁹ Acquisition of the Su-27, with a flight range that could cover most of China, would give the Indian air force a strategic strike capability.¹³⁰

Traditionally, India has considered itself a maritime power. With Russian assistance, India plans to develop another arm of its nuclear triad, using Soviet-built C-Class nuclear submarines as a prototype for upgraded Indian versions that will carry at least six ballistic missiles. The first of five new Indian submarines are expected to be commissioned before 2004.¹³¹ According to a recent news story, India will build a 2,500-ton attack submarine based on the design of French Rubis-class vessels, also by 2004.¹³²

The Indian navy is building and buying large warships capable of both nuclear and conventional warfare. India is also preparing to construct a 30,000–50,000 ton aircraft carrier and will purchase another from Russia.¹³³ According to one report, negotiations for the Indian purchase of the *Admiral Gorshkov*, a Russian aircraft carrier, were well underway in late 1998.¹³⁴ Thus, tactical nuclear strike capabilities, which would certainly create a formidable nuclear threat to China, clearly seem to be part of Indian planning.

In the immediate aftermath of the nuclear tests, Indian leaders were presented with a series of vital questions concerning their future nuclear doctrine.¹³⁵ A few months later, New Delhi still has made no mention of the control, size, and composition of its nuclear arsenal.¹³⁶ All these developments will be carefully monitored in Beijing with the belief that the target of any new deployments will be China.

A Moderate Buildup

Since the end of the cold war, China has maintained relatively stable relationships with both Russia and the United States. Taking advantage of a generally peaceful international environment, China has set the recovery of Taiwan as a top priority. The PLA has focused more on limited, local warfare than on broad, international conflicts—a strategic shift that began in 1985. It has trained its forces

and has purchased advanced armaments from Russia to support a possible operation against Taiwan. PLA missile exercises in the Taiwan Straits in 1995–1996 triggered the deployment of two U.S. aircraft carriers to the area, and the presence of U.S. forces in East Asia remains a key consideration in Chinese planning.

The 1998 Indian nuclear tests, and the potential threat they present to China's southwest borders, add a new concern for PLA military strategists. According to officials interviewed in Beijing in the fall of 1998, the Central Military Commission wants to maintain its focus on Taiwan and the South China Sea, but many military researchers expect the PLA to shift more forces to deal with India and Japan. Such a new military posture toward India was under active consideration at several military institutes, including the NDU, CISS, and the China Defense Science and Technology Information Center.

For a long time, India has accused China of deploying nuclear weapons in Tibet, which has one of the world's richest deposits of uranium. The Dalai Lama has even asserted that China has operated at least one-third of its nuclear weapons in Tibet. (The Ninth Academy, China's primary weapons-development facility, was once located in Tibet's northeastern Amdo.¹³⁷)

In May 1998, George Fernandes, Indian defense minister, said that, "China has its nuclear weapons stockpiled in Tibet along India's borders."¹³⁸ A Chinese defense adviser and several nuclear scientists in Beijing said in October 1998, however, that China never deployed nuclear weapons in Tibet because of what they called the geographical difficulties of doing so. Nor does China need to do so, since its long-range missiles can reach India from far outside of Tibet. (They also asserted that the Ninth Academy was not in Tibet, but in China's Qinghai Province.) After India's nuclear tests, however, it seems more likely that China will deploy nuclear weapons in Tibet to strengthen its defense against India. At 4,000 meters above sea level and facing down on India, the Tibetan plateau is ideal for weapons deployment (the steep Indian side of the Himalayan border, by contrast, is not favorable to missile launches). Most Chinese defense analysts agreed that India has the upper hand in conventional military forces along the border. In response to India's nuclear moves, China would definitely take countermeasures, according to these experts.

China also can enhance its nuclear launch sites in Gansu, Qinghai, and Yunan provinces (see Table 1), where intermediate and long-range missiles are able to reach most parts of India. In the next five years, these missile launch sites will constitute a credible retaliatory strike force against India because India's nuclear capabilities could not effectively eliminate the Chinese nuclear deployments in those mountain areas.

Under this scenario, China is also likely to produce and deploy tactical nuclear weapons. In 1984, the U.S. Defense Intelligence Agency said that China did not seem to possess a tactical nuclear-weapons stockpile or to have developed a "coherent doctrine for tactical nuclear fire support of ground forces." A weapons development expert in Beijing also denied the existence of tactical nuclear weapons in China in late 1998, citing the high cost of producing small nuclear weapons.¹³⁹ But Chinese defense experts acknowledged their research on tactical nuclear weapons, and predicted that China would deploy such weapons if India does.

Shortly before India's nuclear tests in May, Defense Minister Fernandes said, "There can be no letup in our defense priorities as far as China is concerned. . . . We need to strengthen our positions along the borders with China."¹⁴⁰ Chinese military and diplomatic experts worried that India might provoke new incidents—and, in the worst case, a new war—along the Sino-Indian border for domestic political reasons. They also believe that India's conventional forces have outstripped the PLA and even have superiority in logistic support in the border region. PLA forces in the Chengdu Military Region have reportedly taken measures to defend the Tibetan border from Indian attack.¹⁴¹

According to interview respondents, China will answer any Indian nuclear deployment by targeting additional nuclear weapons (including tactical weapons) toward India and by trying to develop a missile-defense system. (In this regard, China is particularly interested in Russia's S-300 air-defense systems.) But China will not shift its nuclear doctrine or non-proliferation policy, nor will it massively build up its nuclear forces.

The debate on the appropriate Chinese response to the Indian nuclear threat illustrates the differences between China's civilian

and military policy makers. Experts in civilian institutes, including CASS, CICIR, IAPCM, and CIIS argue that:

- India's nuclear tests did not pose a serious threat to China's national security;
- India's total power is much smaller than China's;
- China does not need to upgrade its nuclear forces to deal with India in the next five years because it will take a long time for India to develop its nuclear devices into usable weapons;
- China will cooperate with other nuclear powers and will use multilateral mechanisms to constrain India's nuclear threat.

Representatives of military institutes such as CISS and CDSTIC argue that:

- China's deployment along the borders with India has traditionally been insufficient;
- India's nuclear tests have created a significant threat to China;
- China should respond by a moderate buildup of its nuclear forces;
- China should deploy nuclear weapons against India if India deploys them against China.

Of course, the civil-military division is not clear-cut. Some experts at the National Defense University suggested that the PLA does not have a common view on how best to counter the Indian threat. There is consensus within the Chinese military, however, that internal and external threats to China's west, including Tibet and Xinjiang, are real. All the major Chinese military institutes, and even some civilian institutes, are studying the effects of developments in India, Pakistan, and Afghanistan on China's security. In 1998, Jiang Zemin, Chinese president, met with leaders of the Tibet military region—an indication of the strategic importance of the Chinese west.¹⁴²

REVERSAL OF THE COMMITMENT

China's commitment to the international non-proliferation regime is strong, but not irreversible. Under the third scenario, the deployment of missile-defense systems in Japan or Taiwan, coupled with the Indian nuclear and missile deployments noted above and a U.S. retreat from its policy of phased nuclear reductions (as embodied in the START treaty and the CTBT) could compel China to reverse

course. China could refuse to ratify the Comprehensive Test Ban Treaty, for example, particularly if the U.S. Senate rejects the agreement and India also refuses to sign. It could decide not to join the Missile Technology Control Regime or to drop its diplomatic support for the Non-Proliferation Treaty. (Even if China does not withdraw from the NPT, it could join other nations in the developing world in criticizing the treaty's failure to accelerate nuclear disarmament.) In such a situation, the PLA is likely to play an even greater role in China's security decision making.

During an interview in October 1998, one PLA officer said that if the international non-proliferation system changes to accept India, China will adjust its nuclear policy. A senior Chinese diplomat also said that India's entrance into the nuclear club would mean the collapse of the non-proliferation regime.

The attitudes of Chinese experts toward nuclear non-proliferation regimes are mixed; some are more suspicious than others and even oppose the CTBT. In 1996, Chu Shulong and Yang Bojiang, senior fellows at CICIR, wrote that the United States provides Japan not only with a "nuclear defense capability" but also with a "nuclear attack capability." And while Japan's narrow territory may not be suitable for nuclear tests, that country's super computers are capable of simulating nuclear-test explosions.¹⁴³

According to a Carnegie Endowment study, Japan's plutonium stocks will accumulate to between 11 and 25 tons by the year 2000, and to 50–80 tons by the year 2010. In addition to its current supplies of reactor-grade plutonium, Japan potentially could produce weapons-grade plutonium from its reactors now used for generating electricity, or by separating the super-grade plutonium produced in fast breeder reactors.

Japan's space program could also be converted into a missile development program. Japan has successfully tested the J-1 and M-5 solid-fueled rocket systems, which have payloads and ranges similar to U.S. ICBMs. A converted M-5 would be similar to the MX Peacekeeper, the largest operational U.S. ICBM. A converted J-1 missile would surpass the performance of a Minuteman 3. (The Minuteman and the Peacekeeper have striking ranges of 8,000 miles and 7,400 miles, respectively.)¹⁴⁴

In addition to Japan's nuclear potential, China is increasingly concerned about a joint U.S.-Japan theater missile defense. The congressional Commission to Assess the Ballistic Missile Threat to the United States (the Rumsfeld Commission) concluded in July 1998 that China poses a threat both in nuclear weapons and in proliferation.¹⁴⁵ Many in the United States have advocated the deployment of theater missile defenses in East Asia against North Korea, Russia, and China. Since the United States initiated the discussion of missile defense in 1993, the Chinese have paid close attention to its development. Concerned that missile defenses would neutralize China's strategic nuclear deterrent, PLA analysts suggest that China and other countries will take countermeasures, resulting in a new Asian arms race.¹⁴⁶ In particular, as some American analysts point out, "transfer of upper tier systems [of theater missile defenses] with potential for strategic defensive applications to Japan would strongly compel Beijing's attention, because the Chinese would be likely to see such systems as contributing to a Japanese strategic shield behind which Tokyo might develop its own nuclear capabilities." Similarly, U.S. provision of missile defenses to Taiwan would undercut China's ability to intimidate Taiwan and would encourage Taiwan's independence movement.¹⁴⁷

In the wake of a missile test by North Korea on August 31, 1998, China warned against "any country precipitating the arms race under the pretext of countering" North Korea's missiles. Even in this context, China opposed the decision by the United States and Japan to pursue joint missile-defense programs.¹⁴⁸

In January 1999, Secretary of Defense William Cohen alarmed Beijing with his announcement that the United States would substantially increase funding both for a National Missile Defense system and for theater missile defenses. Cohen also suggested that the United States would try to convince Russia to amend the Anti-Ballistic Missile Treaty, and that if these efforts failed, the United States might pull out of the treaty.

In early February, military authorities in Taiwan claimed that the PLA had deployed more than 100 M-9 and M-11 missiles across the straits from Taiwan. Tang Fei, Taiwan's minister of defense, warned that the threat of China's guided missiles "has an impact not only on the military front but also on the political, economic, and psychological fronts."¹⁴⁹

It is not certain whether Taiwan or Japan will actually deploy missile defenses, given the technical and budgetary problems they would have to overcome to do so. Secretary of State Madeleine Albright suggested during her visit to Beijing in early March 1999 that if the missile threat from China and North Korea were reduced, the need for missile defenses in East Asia would diminish.¹⁵⁰ In defense of their missile deployments, Chinese military officials claim that, "the objective of the buildup is to reinforce the effectiveness of the mainland's deterrence tactics." They argue, moreover, that the deployment of M-9 and M-11 missiles in coastal regions is a response to the new U.S. emphasis on missile defenses, which Beijing sees as a threat to the mainland.¹⁵¹ Although the M-class missiles are nuclear-capable, China has deployed these short-range missiles only with conventional payloads. China is not known to have ever planned to use nuclear weapons against Taiwan, an area China considers part of its national territory.

The Chinese message has been clear: the deployment of missile defenses in East Asia could trigger the proliferation of conventional and strategic military weaponry and would constitute a new threat to the region. The inclusion of Taiwan in U.S. missile defense networks, a PLA newspaper warned, "will meet strong objection from the Chinese people."¹⁵² The Ministry of Foreign Affairs also warned of "grave consequences if the missile-defense system is implemented in Asia, and specifically if Taiwan is allowed to participate in it."¹⁵³

China is also afraid of the other major powers resuming nuclear tests, both real and computer-simulated. Sun Xuegui, a Chinese defense expert, argued in a January 1997 publication that both before and after the signing of the CTBT, the Chinese government exhibited a willingness to compromise on almost all major issues. But passage of the treaty signified only the end of actual nuclear explosions, not the end of nuclear-weapon experiments, much less the disappearance of the threat of nuclear war. New high-speed computers offer the United States a means to simulate explosions. The use of these new methods of nuclear testing by Western powers could possibly lead to a nuclear race at a higher level, Sun concluded.¹⁵⁴

Fu Chengli, another defense analyst writing in January 1997, claimed that the United States had indicated its ability to conduct simulated nuclear tests and had even hinted at a possible withdrawal from the CTBT treaty after ten years. According to Fu, the United

States, which once actively advocated a nuclear test ban, now appears prepared to conduct formal nuclear tests if such testing is deemed necessary to ensure its nuclear predominance. Fu's article offers a stark view of Chinese security concerns and helps explain why some Chinese analysts would urge reversing the implementation of the CTBT if they perceive China's security is jeopardized by its weakened nuclear power.¹⁵⁵