



CHINA AND NUCLEAR ARMS CONTROL: CURRENT POSITIONS AND FUTURE POLICIES

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I. Introduction

China's declaratory principles on nuclear arms control, disarmament and non-proliferation have changed little since they were first articulated in the 1960s. However, the international environment and China's role in it have dramatically changed since then, particularly from the mid-1990s, bringing changes to the way that China pursues these long-standing principles. Thus, while it still stakes generally conservative positions, China has come to be generally acknowledged as a welcome and committed participant within the international arms control and non-proliferation community.

There are new challenges and possible changes on the horizon for Chinese nuclear arms control, disarmament and non-proliferation policies. These range from negotiations on a fissile material cut-off treaty (FMCT) and serious discussions on multilateral nuclear disarmament to Iran's and North Korea's nuclear programmes and the upcoming Review Conference of the 1968 Non-Proliferation Treaty (NPT). In short, the arms control, disarmament and non-proliferation agenda is likely to force China to make decisions that it has been able to postpone since the mid-1990s. Perhaps most importantly, with its spectacular rise to global power status, China will find it harder to simply fall back on restatements of principle or adopt a 'wait and see' approach. China's stance on these critical issues matters more than ever, and the world's established, emerging and lesser powers will seek greater clarity in China's views, not least because they will all seek Chinese support for their positions.

How will China respond? China is likely to take on a somewhat more prominent role in order to exercise its influence and pursue its interests in the emerging nuclear arms control, disarmament and non-proliferation agenda. However, it is unlikely to easily adopt positions directly in line with those of the United States, US allies in Europe or even Russia. As such, it is

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SUMMARY

● As the global nuclear arms control and non-proliferation agenda reaches a critical turning point, expectations will rise for China to take on a more proactive and constructive role. As an emerging global power, it will be more difficult for China to lay low or merely repeat long-standing declarations of principle. Moreover, the advent of more advanced conventional weapons, including missile defences and space-based weapons, places further pressures on China to revisit its policies and practices on the role of nuclear weapons.

Looking ahead, China can be expected to have a higher profile in pursuing its interests in an increasingly complex nuclear arms control environment. However, it is unlikely to readily adopt positions directly in line with those of the United States, US allies in Europe or even Russia. As such, it is important to be clear on what Chinese positions are now and how they might shift in the future.

Understanding Chinese positions on some of the most critical nuclear arms control issues will help narrow gaps in policy and perspective between China and key international partners.



important to be clear on what Chinese positions are now and how they might shift in the future. Once this is achieved, it may be possible to foster more effective engagement between China and important international partners on these issues and to simultaneously narrow the gaps between them in both perspective and policy.

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With this in mind, this paper describes and analyses Chinese positions on the most critical and impending nuclear arms control, disarmament and non-proliferation issues that the international community faces. Section II describes how China first formulated its positions on these issues and how their implementation has changed. Section III examines China's positions on modernization of its nuclear force, the NPT and other nuclear non-proliferation regimes, multilateralization of the nuclear fuel cycle, an FMCT, and nuclear disarmament and the elimination of nuclear weapons. Section IV concludes by considering the next steps that should be taken for more effective engagement between China and the international community on issues of nuclear arms control, disarmament and non-proliferation.

II. China's principles, practice and upcoming challenges¹

Since its first nuclear test in 1964, China has maintained a pledge of no-first-use of nuclear weapons.² It maintains a comparatively modest nuclear deterrent and for many years was able to say that it possessed 'the smallest nuclear arsenal' among the nuclear weapon states.³ China calls on the world's nuclear weapon states to completely eliminate such weapons and argues that non-proliferation concerns should be resolved in a fair and equitable manner that recognizes the legitimate right of non-nuclear weapon states to access the benefits of peaceful uses of nuclear technology.

China declined to sign the 1963 Partial Test-Ban Treaty and only became a party to the 1968 Non-Proliferation Treaty in 1992. Since then, China has been markedly more engaged in nuclear arms control, disarmament and non-proliferation issues. In 1995 it supported the indefinite extension of the NPT; in 1996 it helped to negotiate and signed the Comprehensive Nuclear-Test-Ban Treaty (CTBT); in 1997 it joined the Zangger Committee; and in the

¹ On China's past record in nuclear arms control, disarmament, and non-proliferation and particularly the process by which the country's policies in these areas became more and more convergent with widely held international norms see Medeiros, E. S., *Reluctant Restraint: The Evolution of China's Nonproliferation Policies and Practices, 1980–2004* (Stanford University Press: Palo Alto, CA, 2007); Lewis, J., *The Minimum Means of Reprisal: China's Search for Security in the Nuclear Age* (MIT Press: Cambridge, MA, 2007); Gill, B., *Rising Star: China's New Security Diplomacy* (Brookings Press: Washington, DC, 2007), especially chapter 4; and Yuan, J., 'Effective, reliable, and credible: China's nuclear modernization', *Nonproliferation Review*, vol. 14, no. 2 (July 2007), pp. 275–301.

² This was reiterated in China's 2008 Defence White Paper. Chinese State Council, *China's National Defense in 2008* (Information Office of the State Council of the People's Republic of China: Beijing, Jan. 2009), chapter XIV.

³ Chinese Ministry of Foreign Affairs, 'China: nuclear disarmament and reduction of [sic]', Fact sheet, 27 Apr. 2004, <<http://www.fmprc.gov.cn/eng/wjzb/zzjg/jks/cjkk/2622/t93539.htm>>. China is now thought to have more nuclear weapons than France and the United Kingdom. Kile, S. N., Fedchenko, V. and Kristensen, H. M., 'World nuclear forces', *SIPRI Yearbook 2009: Armaments, Disarmament and International Security* (Oxford University Press: Oxford, 2009), p. 364.

Five states are recognized as 'nuclear weapon states' by the NPT—China, France, Russia, the UK and the USA. All other states are designated 'non-nuclear weapon states' by the NPT regime, although India, Israel and Pakistan have (or are strongly believed to have) nuclear weapons.



late 1990s it reached a number of bilateral agreements with the USA to stem its nuclear- and missile-related exports to countries such as Iran and Pakistan. In the early to mid-2000s China also aligned itself with other nuclear-related arms control and non-proliferation arrangements by joining the Nuclear Suppliers Group and supporting United Nations Security Council Resolution 1540 (both in 2004), strengthening domestic export control mechanisms, hosting the Six Party Talks on security on the Korean Peninsula and cosponsoring a draft treaty at the Conference on Disarmament (CD) to prevent the placement of weapons in outer space. China also voted in support of UN Security Council Resolution 1887, which commits UN member states to a range of stronger measures on the global arms control, disarmament and non-proliferation agenda. (See table 1 below.)

China has been markedly more engaged in nuclear arms control, disarmament and non-proliferation issues

This increase in engagement by China has led to raised expectations of its continued positive involvement. On the arms control and disarmament agenda, new expectations of China will mount at the CD where, for the first time in over a decade, the states parties have agreed to a programme of work, including the negotiation of an FMCT.

In addition, if Russia and the USA continue to move forward to implement further cuts to their nuclear arsenals, and in the broader context of increased calls for nuclear disarmament, China's nuclear weapon programmes and its willingness to engage in multilateral nuclear disarmament discussions will receive closer scrutiny. In this environment, China's positions on its own nuclear modernization plans as well as on the missile defences and advanced precision strike conventional weapons of others (and China's perceptions of the impact such weapons would have on its nuclear deterrent), become all the more important.

On the non-proliferation agenda, expectations will also increase for China to take tougher positions and bring greater political and economic pressures to bear on Iran and North Korea, with the aim of preventing them from becoming fully fledged nuclear weapon powers. China's willingness to back stricter non-proliferation mechanisms while also demonstrating its genuine support for nuclear disarmament will be closely watched during the NPT Review Conference to be held in May 2010.

III. China's current positions and future policies

China's nuclear force modernization: technological and doctrinal issues

China has eschewed engaging in a nuclear arms race with Russia or the USA owing to past technological and financial constraints and, perhaps most importantly, owing to consistent doctrinal constraints. Since the inception of its nuclear weapon programme in 1955, Chinese leaders and strategists have perceived nuclear weapons as limited in their military utility, a view reflected in their no-first-use policy and limited strategic arsenal. Today, official Chinese policy declares an absolute commitment to a no-first-use policy and a limited strategic nuclear arsenal.⁴

⁴ Yang, J., Chinese Minister of Foreign Affairs, Statement at the Conference on Disarmament, Geneva, 12 Aug. 2009, <<http://www.fmprc.gov.cn/ce/cebe/eng/zgwj/t578020.htm>>.



China should be expected to continue steadily modernizing and expanding its nuclear forces

Nonetheless, China is in the midst of a significant modernization programme for its nuclear force, particularly its means of delivery. This modernization effort aims to assure China of a reliable, effective and credible retaliatory capability by shifting from heavy reliance on its land-based, fixed-site, liquid-fuel rocket force to a more mobile, solid-fuel force with significant land-based and sea-based components and improved early-warning and command-and-control systems.⁵ There are also important internal debates within China's strategic community of military, governmental and quasi-governmental experts about reinterpretation of the long-standing no-first-use pledge, and the need to move towards an 'elite and effective nuclear missile force that is on par with China's position as a major power'.⁶

What is behind these changes? Two factors are important to consider, and they will continue to play an important role in shaping the form, extent and doctrine of China's future nuclear arsenal and the country's approach to issues of arms control, disarmament and non-proliferation. First, with greater financial and technological resources at hand, China has been able in the past decade to invest in upgrading and improving its outdated nuclear arsenal. Second, while its overall security situation is perhaps the most favourable it has known in over a century and a half, China continues to harbour concerns about potential confrontation with other nuclear-armed powers, particularly the USA, but also India and Russia, however remote the possibility may seem now. Related to this, Chinese security perceptions, particularly in the nuclear realm, are affected by global developments in military technology—including the introduction of missile defence programmes, new types of nuclear warheads and advanced conventional weapons, including potential space-based weapons—and these perceptions in turn influence China's nuclear force modernization plans. Decisions and deployments by Russia and the USA will be particularly important in this regard.

Looking ahead, China is unlikely to restart nuclear testing or engage in a large and rapid nuclear weapon build-up. However, China should be expected to continue steadily modernizing and expanding its nuclear forces and is likely to stand out in doing so among the five recognized NPT nuclear weapon states. In addition to improving the survivability of China's deterrent, some Chinese analysts suggest that China would like to preserve the option of increasing not only the quality but also the quantity of its nuclear weapon

⁵ Kile, Fedckenko and Kristensen (note 3), pp. 364–67. On China's nuclear forces, the evolution of Chinese nuclear doctrine and China's nuclear command structure see Gill, B. and Medeiros, E. S., 'China', eds H. Born, B. Gill and H. Hänggi, SIPRI, *Governing the Bomb: Civilian Control and Democratic Accountability of Nuclear Weapons* (Oxford University Press: Oxford, forthcoming 2010). See also Lewis, J., 'Chinese nuclear posture and force modernization', eds C. Hansell and W. C. Potter, *Engaging China and Russia on Nuclear Disarmament*, Occasional Paper no. 15 (James Martin Center for Nonproliferation Studies: Monterey, CA, Apr. 2009).

⁶ Jing, Z. and Peng, X., '建设中国特色战略导弹部队' [Building a strategic missile force with Chinese characteristics], *Qiushi*, Feb. 2009. This article, by 2 leaders of China's strategic rocket forces, is cited in Chase, M. S., Erickson, A. S. and Yeaw, C., 'The future of Chinese deterrence strategy', *China Brief*, vol. 9, no. 5 (4 Mar. 2009). See also Pan, Z., 'On China's no first use of nuclear weapons', Paper presented at the conference No First Use of Nuclear Weapons, Pugwash Meeting no. 279, London, 15–17 Nov. 2002, <<http://www.pugwash.org/reports/nw/zhenqiang.htm>>; and Nuclear Threat Initiative, 'No-first-use (NFU)', 26 June 2003, <<http://www.nti.org/db/China/nfuorg.htm>>.



force.⁷ Such analysts argue that a ‘limited’ nuclear force is not necessarily defined by a certain low number of warheads. Rather, a limited Chinese nuclear force will be determined relative to others’ strategic offensive and defensive systems, and China’s ability to survive a first strike and reliably retaliate with a limited (‘countervalue’) attack on civilian targets that penetrates missile defences when necessary.⁸ This continuing concern with maintaining a reliable deterrent will be a defining influence in shaping China’s approach to a range of imminent arms control and disarmament discussions.

The Non-Proliferation Treaty and other nuclear non-proliferation regimes

Of the five acknowledged nuclear weapon states under the NPT, China was the fourth to accede to the treaty in 1992, shortly before France, and after more than two decades denouncing the treaty as unfair, hypocritical, and discriminatory. China also engaged in nuclear proliferation prior to joining the NPT, as it provided important assistance to the development of Pakistan’s nuclear weapon programme in the 1970s and exported sensitive nuclear-related materials and technologies to countries such as Algeria and India.⁹

In the declaration made on its accession to the NPT, China urged the other nuclear-weapon states to adopt its no-first-use policy, issue negative security assurances to non-nuclear weapon states, support the establishment of nuclear weapon-free zones, refrain from deploying nuclear weapons outside their boundaries, prevent an arms race in outer space and cease the development of space weapons.¹⁰ China voted for the NPT’s indefinite extension in 1995 and has increasingly come to value the treaty for its role in preventing proliferation, while still strongly supporting its provisions for the peaceful use of nuclear technology by non-nuclear weapon states, the treaty’s universal and multilateral character, and its role in resolving proliferation concerns through diplomacy and negotiation, not force. While in recent years China has appeared more willing to preserve consensus among the acknowledged nuclear weapon states at critical junctures—such as in dealing with the Iranian nuclear programme—China has also sought to portray itself as an intermediary between the nuclear weapon states and non-nuclear weapon states and, more broadly, between developed and developing countries.¹¹

China has also sought to portray itself as an intermediary between the nuclear and non-nuclear weapon states

Since the late 1990s China has become engaged with other non-proliferation mechanisms, such as the Zangger Committee, the Nuclear Suppliers Group, the Wassenaar Arrangement and the Missile Technology Control Regime, and it implements the provisions of UN Security Council Resolution

⁷ Sun, X., ‘Analysis of China’s nuclear strategy’, *China Security*, no. 1 (autumn 2005).

⁸ Sun (note 7), p. 28.

⁹ Smith, R. J. and Warrick, J., ‘A nuclear power’s act of proliferation’, *Washington Post*, 13 Nov 2009.

¹⁰ China’s Instrument of Accession to the Non-proliferation Treaty, 11 Mar. 1992, <<http://nuclearthreatinitiative.org/db/china/engdocs/nptdec.htm>>. A ‘negative security assurance’ is a declaration by a nuclear weapon state that it will not use such weapons against a non-nuclear weapon state.

¹¹ China’s role as intermediary between North Korea and the USA in the context of the Six Party Talks is perhaps the best example of this role.



1540 (see table 1). China has declined to formally participate in the Proliferation Security Initiative (PSI) proposed by the USA in 2003. In doing so it noted the non-universal character of the group, but China also wishes to avoid alienating one of the prime targets of the initiative, its neighbour North Korea.¹² China contests in principle what it often views as a discriminatory and selective take on non-proliferation by these regimes, particularly criticizing the 'double standards' exercised by the USA regarding the nuclear programmes of countries such as India and Israel.¹³

Looking ahead, regarding the future of the NPT, China has officially stated its desire to see the 'universality, authority and effectiveness' of the treaty strengthened and has stressed the need for strict compliance.¹⁴ It has also put a particular emphasis on the importance of disarmament for a successful 2010 NPT Review Conference. For example, during the 2007 Preparatory Committee meeting for the 2010 conference, China's working paper called on nuclear weapon states 'to promote nuclear disarmament, reduce the danger of nuclear war and diminish the role of nuclear weapons in national security policy' by, among other measures, abandoning policies of nuclear deterrence based on first use of nuclear weapons, confirming negative security assurances, supporting the establishment of nuclear weapon-free zones,

China will take a consensual approach at the 2010 NPT Review Conference

not developing low-yield nuclear weapons, not deploying nuclear weapons outside of their territory and giving up 'nuclear umbrellas'.¹⁵ During the 2008 NPT Preparatory Committee meeting, China reaffirmed its support for the 2000 NPT Review Conference Final Document's '13 practical steps' for nuclear disarmament as 'still relevant today', and said that states parties 'should reaffirm those steps that are still valid and put forward new proposals reflecting the consensus of all sides'.¹⁶

In order to preserve the overall credibility and viability of the treaty, China will take a consensual approach at the 2010 NPT Review Conference and do what it can to avoid the negotiations collapsing in disagreement, as happened at the 2005 NPT Review Conference. But overall, China is more likely to side with many of the leading non-nuclear weapon states by emphasizing the need for disarmament, especially by Russia and the USA. This approach underscores China's understanding that states can be driven to seek nuclear weapons today in order to deter the use of massive conventional force or nuclear weapons against them. At the same time, it will defend the right of non-nuclear weapon states, and particularly developing countries, to access nuclear technologies for peaceful purposes.

¹² Shen, D., 'China's nuclear perspective: deterrence reduction, nuclear non-proliferation, and disarmament', *Strategic Analysis*, vol. 32, no. 4 (July 2008), p. 643.

¹³ Chinese State Council (note 2), chapter XIV.

¹⁴ Yang (note 4).

¹⁵ Preparatory Committee for the 2010 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, 'Nuclear disarmament and reduction of the danger of nuclear war', Working paper submitted by China, NPT/CONF.2010/PC.I/WP.46, 7 May 2007, <<http://www.un.org/NPT2010/documents.html>>, para. 12.

¹⁶ Cheng Jingye, Director General of the Department of Arms Control and Disarmament, Ministry of Foreign Affairs, Statement at the 2008 PrepCom, Geneva, 28 Apr. 2008, <<http://www.un.org/NPT2010/SecondSession/statements.html>>, p. 3; and 2000 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, Final document, NPT/CONF.2000/28 (Parts I and II), pp. 14–15.



Multilateralization of the nuclear fuel cycle and protection of fissile material

Chinese interlocutors understand that rising global demand for nuclear energy will result in a considerable increase in construction of nuclear reactors and uranium enrichment and reprocessing facilities around the world, and that this in turn poses a non-proliferation challenge by making it easier for more countries to acquire nuclear weapons.¹⁷ However, China has been less forthcoming in its support for various proposals—such as establishing secure nuclear fuel banks at the front end of the nuclear fuel cycle or providing for secure removal of spent fuel at the back end—which seek to reduce the proliferation risks related to the nuclear fuel cycle.¹⁸

China has supported multilateral initiatives concerned with the disposition of fissile materials, such as the 1980 Convention on the Physical Protection of Nuclear Material, the 1997 Joint Convention on the Safety of Spent Fuel Management and the US-initiated Global Nuclear Energy Partnership (GNEP; see table 1). However, China is currently not involved in official discussions on the multilateralization of the nuclear fuel cycle, although it remains open to the possibility of establishing a multilateral fuel-supply and -removal mechanism with International Atomic Energy Agency (IAEA) involvement.¹⁹ In practice, however, such arrangements would almost certainly require significant support from non-nuclear weapon states in order for China to fully back the idea.²⁰

However, an interesting debate appears to be unfolding in China on these issues. The dominant theme at present echoes traditional Chinese concerns over sovereignty and a deeply rooted scepticism over whether centralized fuel suppliers will guarantee the energy independence and, ultimately, political autonomy of non-supplier states.²¹ At the same time, however, senior Chinese policymakers state that, while China wants to avoid giving the impression that multilateral fuel banks are being imposed on non-nuclear states, it is open to considering fuel banks in a step-by-step process which demonstrates that they can work in practice.²² Other Chinese analysts see the multilateralization of the nuclear fuel cycle as inevitable while acknowledging that finding an acceptable mechanism will be a difficult challenge; however, being a country with the means to run an indigenous nuclear fuel cycle, China is 'obligated to make efforts in nuclear non-proliferation' and

¹⁷ Sokov, N. N. et al., 'Chinese and Russian perspectives on achieving nuclear zero', eds Hansell and Potter (note 5), p. 10.

¹⁸ On multilateralization of the nuclear fuel cycle see e.g. Goodby, J. E., 'Internationalizing the nuclear fuel cycle', *Bulletin of the Atomic Scientists*, 4 Sep. 2008; Yudin, Y., *Multilateralization of the Nuclear Fuel Cycle: Assessing the Existing Proposals* (United Nations Institute for Disarmament Research: Geneva, 2009); Simpson, F., 'Reforming the nuclear fuel cycle: time is running out', *Arms Control Today*, vol. 38, no. 9 (Sep. 2008); Choi, J., 'A regional approach for future nuclear fuel cycle: a case for Asia Pacific', Seminar presentation, James Martin Center for Nonproliferation Studies, Monterey, 9 June 2009, <<http://www.youtube.com/watch?v=bPjWSIGvTIU>>; and Fedchenko, V., 'Multilateral control of the nuclear fuel cycle', *SIPRI Yearbook 2006: Armaments, Disarmament and International Security* (Oxford University Press: Oxford, 2006).

¹⁹ Yang (note 4); and Li, S., Representative of the Chinese delegation, Statement at the Third Session of the Preparatory Committee for the 2010 NPT Review Conference, New York, 11 May 2009, <<http://www.china-un.org/eng/hyyfy/t562619.htm>>.

²⁰ Chinese arms control specialists, Interviews with the author, Beijing, Oct. 2009.

²¹ Shen (note 12), p. 645.

²² Senior Chinese arms control official, Interview with the author, Beijing, Nov. 2009.



should therefore ‘participate in the international discussion on a global mechanism for the nuclear fuel cycle and voice its own suggestions for the development of a world nuclear industry and nuclear fuel supply security’. By doing so, ‘China can, on one hand, contribute to nuclear non-proliferation, and on the other hand, gain a proper place in the international nuclear fuel cycle industry to ensure that China has sufficient nuclear fuel supply for the future development of its nuclear power industry’.²³ Some Chinese analysts also see the possible economic benefits of multilateralization for China. In this view, China should ‘consider and research its nuclear fuel circle development from a globalized-market perspective’ and, since it ‘will have in the future one of the world’s largest nuclear power infrastructures’, should engage more deeply in the emerging global nuclear fuel cycle industry.²⁴

Looking ahead, China’s position in the nuclear energy field is likely to grow more and more important. While for the time being China is focused on developing its domestic nuclear power infrastructure, it could well become an important supplier of nuclear energy and technology in the future and take part in the multilateralization of the fuel cycle. Some analysts have speculated that China would be able to offer both front- and back-end fuel cycle management services to other countries in one to two decades.²⁵

A fissile material cut-off treaty

An FMCT would be a significant achievement for non-proliferation and nuclear disarmament, and China officially endorses progress on the negotiation of an FMCT. Nevertheless, China has a number of concerns over how an FMCT could limit its ability to build nuclear warheads in the future. These concerns lie principally in three areas. First, as current fissile material stocks would not be covered by the treaty, the much larger stockpiles of Russia and the USA could give them a significant advantage over China should either of these countries decide to increase its nuclear arsenal.²⁶ Second, China is concerned about the advances in conventional weapon technology—especially missile defences and precision-strike weapons—as well as deliberations in other nuclear weapon states, especially Russia, to enhance the salience of nuclear weapons in their overall security strategy. In this environment, China wants the option of increasing its nuclear arsenal in order to maintain a credible retaliatory capacity. Third, the accession by India, North Korea and Pakistan to an FMCT is far from certain and expansion of nuclear arsenals by these neighbouring countries may require a similar response by China. China is thought to have a stockpile sufficient to increase its nuclear arsenal two- or threefold.²⁷ It has been widely speculated that worries over the sufficiency of its stockpile for future weapon

²³ Guo Z., ‘国际核燃料循环机制方案的发展’ [Mechanisms for international nuclear fuel cycle programme development], *Guotu Ziyuan Qingbao*, no. 4, 2007 (author’s translation).

²⁴ Li, G., ‘我国核燃料循环产业面临的挑战和机遇’ [Coming challenge and opportunity for the nuclear fuel cycle industry of China], *Youkuang Dizhi*, vol. 24, no. 5 (Sep. 2008) (author’s translation).

²⁵ Choi (note 18).

²⁶ On current stocks see Glaser, A. and Mian, Z., ‘Global stocks of fissile materials, 2008’, *SIPRI Yearbook 2009* (note 3).

²⁷ Nuclear Threat Initiative, ‘China profile: nuclear overview’, Sep. 2009, <http://www.nti.org/e_research/profiles/China/Nuclear/>.



needs are the reason for China's 'cautious and reluctant' position on the treaty.²⁸

Chinese positions related to FMCT discussions reflect this diffidence. For example, there have been unofficial indications that China has suspended its production of fissile material for nuclear weapons.²⁹ However, it opposes a more formal moratorium on the production of weapon-grade plutonium and highly enriched uranium pending conclusion of an FMCT. According to one official, such a de facto moratorium 'would have no set definition and might slow progress in achieving negotiations of a FMCT'.³⁰ China has reportedly exerted behind-the-scenes pressure to remove references to a moratorium from NPT documents, and some analysts say its persistent opposition to declaring a moratorium may reflect resistance to achieving an FMCT in the near future.³¹ In the past, China also insisted in the Conference on Disarmament on linking progress on an FMCT with progress on other arms control measures on the CD agenda, such as preventing an arms race in outer space (PAROS). These linkages could be revisited if China is dissatisfied with the direction of FMCT negotiations or discussions on other CD agenda items.

China will remain sensitive to how an FMCT would limit its deterrence options

Looking ahead, official Chinese statements support 'early' CD negotiations on an FMCT and declare that China would play an 'active' role therein.³² However, it should be noted that, after a programme of work was agreed by the CD in May 2009, follow-up has been slow, with Iran and Pakistan raising different procedural issues to block the start of formal negotiations in the latter half of 2009. Some analysts argue that China is in no hurry to resolve these procedural issues and itself raised some procedural concerns of its own at the CD in late June 2009 which further delayed progress toward negotiations.³³

If FMCT negotiations were to proceed, pressure would build for China to take more constructive positions and avoid being seen as an outlier and obstruction to progress. China, like the other nuclear weapon states, is most likely to contend that existing fissile material stockpiles remain outside the scope of an FMCT and will also seek to exclude declarations on stockpile size. As to verification procedures, China is likely to accept routine inspections at its civilian production facilities. However, challenge and even routine inspections at military facilities would be highly sensitive for China, which fears that they could reveal quantitative and qualitative information about its stockpiles. As such, China will place great emphasis on the procedural elements regarding inspections under an FMCT, including the type

²⁸ Li, B., 'China', *Banning the Production of Fissile Materials for Nuclear Weapons: Country Perspectives on the Challenges to a Fissile Material (Cutoff) Treaty* (International Panel on Fissile Materials: Princeton, NJ, 2008), p. 8.

²⁹ Feiveson, H., 'Fissile materials: global stocks, production and elimination', *SIPRI Yearbook 2007: Armaments, Disarmament and International Security* (Oxford University Press: Oxford, 2007), p. 561.

³⁰ Quote from 'a high-ranking Chinese arms control official' cited in Saalman, L., 'How Chinese analysts view arms control, disarmament, and nuclear deterrence after the cold war', eds Hansell and Potter (note 5), p. 68.

³¹ Johnson, R., 'Enhanced prospects for 2010: an analysis of the third PrepCom and the outlook for the 2010 NPT Review Conference', *Arms Control Today*, vol. 39, no. 6 (June 2009).

³² Yang (note 4).

³³ Meyer, P., 'Breakthrough and breakdown at the Conference on Disarmament: assessing the prospects for an FM(C)T', *Arms Control Today*, vol. 39, no. 9 (Sep. 2009).



of authorization needed for challenge inspections—China is likely to favour super-majority voting procedures depending on intelligence sources, akin to its insistence on them during the CTBT negotiations.³⁴

For China, the strategic and political factors concerning an FMCT will loom larger than the technical and procedural ones. Most importantly, China will remain sensitive to how an FMCT would limit its deterrence options. China may prefer to go slow on an FMCT and wait to see how developments unfold in its broader strategic environment, such as progress in US missile defence plans and Russia–USA disarmament discussions. However, in any case, the entry into force of an FMCT remains a distant prospect, with difficult negotiations still to come. This will buy China some time to contemplate its fissile material production needs in light of developments in its strategic environment.

Nuclear disarmament and a world free of nuclear weapons

Chinese officials and analysts regularly point to actions taken which demonstrate the country's responsible approach to nuclear disarmament. For example, China was the second country to sign the CTBT (after the USA). It has yet to ratify the treaty, but since its last nuclear test in July 1996 it has abided by a de facto moratorium on nuclear testing along with France, Russia, the United Kingdom and the United States. China declares its strong support for the CTBT's entry into force at NPT meetings, in the UN General Assembly and through its participation in the work of the Provisional Technical Secretariat of the CTBTO, including hosting 12 monitoring stations on its territory.³⁵

China has maintained a comparatively modest nuclear arsenal

China has also repeatedly stated its support for the Conference on Disarmament and wishes to see it negotiate an FMCT, PAROS, security assurances to non-nuclear weapon states and nuclear disarmament. China also took part in the September 2009 UK-convened conference of the five permanent members of the UN Security Council (the P5) on confidence-building measures leading to nuclear disarmament and joined in the unanimous UN Security Council decision to back Resolution 1887, committing the international community to strengthen global non-proliferation and disarmament steps.³⁶

China also notes the important contribution it has made to disarmament by limiting the role of nuclear weapons in its overall national security strategy. China has maintained a comparatively modest nuclear arsenal in both qualitative and quantitative terms, has not sought parity with the nuclear

³⁴ Li (note 28), p. 11. See also Zhang, H., 'China's nuclear fuel cycle: a case study of FMCT verification', Presentation at the SIPRI seminar Verifying a Fissile Material Cut-off Treaty: Technical Issues and Political Choices, Geneva, 25 May 2009, <http://belfercenter.ksg.harvard.edu/publication/19074/chinas_nuclear_fuel_cycle.html>.

³⁵ CTBTO, 'Station profiles', <<http://www.ctbto.org/verification-regime/station-profiles/>>. The CTBTO is the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization. It would formally become the Comprehensive Nuclear-Test-Ban Treaty Organization on entry into force of the CTBT.

³⁶ P5 statement on disarmament and non-proliferation issues, 3 Sep. 2009, <<http://www.fco.gov.uk/en/news/latest-news/?view=News&id=20804873>>; and UN Security Council Resolution 1887, 24 Sep 2009. See also 'Chinese president offers five-point proposal for safer world', 25 Sep. 2009, <http://english.gov.cn/2009-09/25/content_1425897.htm>.



superpowers, and claims its nuclear weapons are only for deterring others from using them against China.³⁷ China regularly suggests that other countries should follow its example in adopting policies of no-first-use, no-fixed-targets, no-overseas-deployment, de-alerting and no-nuclear-umbrella policies. China also supports an international legal instrument on negative security assurances to non-nuclear weapon states as both a confidence-building measure aiming at nuclear disarmament as well as a non-proliferation effort. As a long-term goal, China has proposed negotiating a convention prohibiting nuclear weapons altogether.³⁸

Behind these declarations lie complicated debates and calculations for China on questions of nuclear disarmament. To begin, while the CTBT was submitted for ratification to the National People's Congress—China's legislature—in early 2000, China in all likelihood will wait until the USA and possibly India ratify the CTBT before it proceeds to do so.³⁹ Even if the prospects for US ratification have improved, there remain pockets of ambivalence and scepticism about the CTBT in China: some Chinese analysts believe China was tricked into signing the CTBT before the USA started its missile defence programme in earnest.⁴⁰

China will also be reluctant to engage in multilateral disarmament discussions in the near- to medium-term, preferring instead to see far deeper cuts on the part of Russia and the USA. China has long held that the two nuclear superpowers, Russia (or the Soviet Union) and the USA, bear a special responsibility and should take the lead to 'drastically reduce their nuclear arsenals in a verifiable and irreversible manner, so as to create the necessary conditions for the participation of other nuclear-weapon states in the process of nuclear disarmament'.⁴¹ China will also keep a close eye on US advances in missile defence and in high-precision conventional offensive weaponry, as this too will affect its willingness to engage in disarmament. However, thus far there is no clear official Chinese position on the country's willingness to join in multilateral disarmament talks. A range of conditions have been put forward over the years by officials and experts in interviews and publications, but these do not represent formal government policy. Some analysts have said that Russia and the USA will need to reduce their warhead count to fewer than 1000 each before China can consider entering multilateral discussions.⁴² Others have suggested that Russia and the USA would need to bring their arsenals even lower, to three times larger than China's (i.e. to c. 600 warheads). Another analyst has written 'China cannot join phased quantitative nuclear reductions. Since it already has a very small nuclear force, it does not make much sense to cut its arsenal step-by-step

China will be reluctant to engage in multilateral disarmament discussions in the near- to medium-term

³⁷ Chinese State Council (note 2), chapter XIV.

³⁸ Chinese State Council (note 2), chapter XIV.

³⁹ Johnson, R., *Unfinished Business: The Negotiation of the CTBT and the End of Nuclear Testing* (United Nations Institute for Disarmament Research: Geneva, 2009), p. 218.

⁴⁰ Yuan, J., 'China and the nuclear-free world', eds Hansell and Potter (note 5), p. 33.

⁴¹ Chinese State Council (note 2), chapter XIV.

⁴² Shen (note 12), p. 649. As of Jan. 2009, the USA is estimated to have had 2702 deployed nuclear warheads (2202 strategic and 500 non-strategic), Russia 4834 (2787 strategic and 2047 non-strategic), and China 186. Kile, Fedckenko and Kristensen (note 3), p. 346.



even if it has the political will to do so. For China, a more feasible approach might be to set a ceiling to be later followed by complete elimination.⁴³

More broadly, many Chinese analysts view nuclear disarmament as a morally laudable but ultimately unattainable goal. These analysts point to the complex dynamics involved—China will not disarm if Russia and the USA do not; India will not if China and Pakistan do not; and China will not if India does not.⁴⁴ Other analysts simply cannot believe that Russia and the USA would ever give up nuclear weapons given the prominent role they play in the countries' respective security policies.⁴⁵ Some Chinese analysts argue that complete disarmament is a US ploy, since in a world without nuclear weapons the USA would have a freer hand to impose its will on the international system given its overwhelming conventional weapon superiority.⁴⁶ Others go so far as to say that China should actually increase its nuclear arsenal before participating in nuclear disarmament negotiations in order to strengthen China's bargaining position.⁴⁷

Looking ahead, while maintaining its declaratory positions on disarmament, on nuclear doctrine and on the ultimate goal of a world free of nuclear weapons, China is unlikely to take part in any unilateral or multilateral disarmament steps in the near- to medium-term. On the contrary, Chinese steps to modernize its nuclear arsenal will stand out among the world's major nuclear weapon states. China's future moves on disarmament will be very much subject to steps taken by Russia and the USA, in quantitative, qualitative and doctrinal terms, in both the nuclear and advanced conventional weapon realms.

IV. Conclusions: next steps for engaging China

With this range of Chinese perceptions and positions in mind, how can China and the rest of the international community work more cooperatively together to achieve progress on issues of nuclear arms control, disarmament and non-proliferation? As the pace of the nuclear arms control, disarmament and non-proliferation agenda picks up and expectations of China likewise increase, China faces some difficult choices. On the one hand, these choices will be shaped in important ways by the words and actions of other countries. On the global arms control and disarmament front, the steps taken by other nuclear weapon states—especially India, Russia and the United States—will have an important effect on China's calculations and policy preferences. The positions of other key states—such as Argentina, Brazil, Egypt, Indonesia, Iran, Pakistan and South Africa—will influence Chinese thinking and action on forthcoming efforts to strengthen the non-proliferation regime. Of course, Chinese national interests, and particularly China's determination to maintain a credible nuclear deterrent, will profoundly

⁴³ Li, B., 'China: a crucial bridge for the 2005 NPT Review Conference', *Arms Control Today*, vol. 35, no. 1 (Jan./Feb. 2005).

⁴⁴ Wang, Z., 核武器·核国家·核战略 [Nuclear weapons, nuclear powers and nuclear strategies] (Current Affairs Press: Beijing, 2007), pp. 445–46, cited in Saalman (note 30), p. 67.

⁴⁵ Saalman (note 30), p. 69.

⁴⁶ Saalman (note 30), p. 71.

⁴⁷ Wang, Z., 'Nuclear challenges and China's choices', *China Security*, no. 5 (winter 2007).



affect how it chooses to promote future arms control, disarmament and non-proliferation measures in the years ahead.

Within this complex dynamic of interests and action, a number of steps can be taken within the international community to engage China more effectively on these issues. The goals in this engagement should not necessarily be 'breakthroughs' and new commitments, but rather a deliberate and respectful airing of views and search for common ground at governmental, quasi-governmental and academic levels. It will be important at this stage to go beyond current dialogues which tend to reiterate the arms control, disarmament and non-proliferation problems that confront China and the rest of the international community or which divide China and key bilateral partners such as the USA, and instead bring greater focus to the practical and mutually acceptable steps and confidence-building measures which interested parties can take in the near- to medium-term.

More specifically, China and the international community could do more to concentrate their discussions in five promising areas.

1. *Multilateral disarmament processes.* Interested parties, and especially the five NPT-acknowledged nuclear weapon states, should begin a more serious discussion about multilateral disarmament processes. These would be largely undertaken through unofficial or 'track 2' discussions and would aim to lay out the norms, principles, challenges and possible solutions which are likely to attend any future multilateral disarmament deliberations. This initial process would take some years to complete, but it could provide a foundation for building confidence and taking action in more formal multilateral disarmament talks in the future.

2. *Strategic stability, the role of nuclear weapons and the definition of effective deterrence.* China and its international partners should engage more regularly on issues of strategic stability, the role of nuclear weapons and the definition of effective deterrence in an age of advanced conventional weapons. These discussions would probably not touch on sensitive quantitative or qualitative technical questions regarding a given country's nuclear arsenal. Rather, they should aim to determine areas of common agreement on the strategic environment within which decisions governing nuclear weapons are made, including discussions of how strategic stability and disarmament are affected by nuclear transparency, no-first-use pledges, negative security assurances, nuclear build-ups, missile defences, space-based armaments, precision-strike conventional weaponry, and the possibilities of disabling cyber attacks against military assets including nuclear weapon capabilities.

3. *New mechanisms to improve the international non-proliferation regime.* China and interested parties should also deepen discussions on strengthening the role of new mechanisms to improve the international non-proliferation regime within the parameters of the NPT. Particular attention should be given to how smaller, ad hoc arrangements at a bilateral level or among smaller groupings of countries—such as the Six-Party Talks, the NSG, the Global Nuclear Energy Partnership or shifting work on non-proliferation within the G8 and G20 frameworks—could be supported by China and its international partners to address proliferation challenges. Participants in the Wassenaar Arrangement and the Missile Technology Control Regime should reconsider the idea of granting membership to China in these groups.



4. *Disposition and use of fissile material.* The disposition and use of fissile material is another area of cooperation that deserves greater attention and dialogue between China and its international partners. China's careful but tentatively open-minded approach to the multilateralization of the nuclear fuel cycle, including multilateral fuel banks, provides a window for meaningful engagement with China to improve the non-proliferation regime. A more concerted effort should be made between China and interested international partners to present, discuss and critique current and potential new proposals around increasingly important fuel cycle issues. The discussions could lead to balanced proposals that meet the energy security needs for non-producing states and establish secure regional fuel banks under the supervision of the IAEA, some of which could well end up in China. A second area of fruitful discussion in this regard concerns broader questions of securing stockpiles of fissile materials within those states that currently possess them, to ensure that they cannot be diverted illegally to weapon use. In this regard, a possible venue for such discussions could be the GNEP or its follow-on organization. The joint statement issued after the GNEP's third Executive Committee Meeting, held in Beijing in October 2009, said that a 'transformation of GNEP is necessary' and called on the body to adjust 'to a possible new cooperation approach'.⁴⁸ It will be important to have full Chinese participation in any new framework of like-minded states which might emerge from the process to ensure the safe, secure and proliferation-resistant use of civilian nuclear energy. UN Security Council resolutions 1540 and 1887, both of which China supports, provide a critical political mandate to more actively engage China on these issues.

5. *Non-state actors and their role in non-proliferation and proliferation.* The time is ripe for interested parties in the international community to open more serious discussions with China on the question of non-state actors and their role in non-proliferation and proliferation. This process would have two important aspects. First would be to gain early participation and buy-in from China's growing nuclear power industry. This sector is likely to become increasingly commercialized, less state-centric and more globally oriented in the years ahead, and it will be important to generate greater interaction between China's nuclear industry and its counterparts abroad around non-proliferation issues. Second, a sustained dialogue is needed with China to elicit its perspectives and proposals on how to prevent the malign use of nuclear materials by non-state actors.

Overall, in working with China, it is important to take a long-term view. On the one hand, over the course of the past two decades, China has come a very long way to reach more and more common ground with the international community on the issues of nuclear arms control, disarmament and non-proliferation. However, it is also true that many outstanding differences remain between China's positions and those of other important international partners—China's international partners should not expect major steps forward in the near-term, but rather should seek incremental progress at best on the NPT, an FMCT and other mechanisms.

⁴⁸ Global Nuclear Energy Partnership, Third Executive Committee Meeting, Joint Statement, Beijing, 23 Oct. 2009, <<http://www.gneppartnership.org/library.htm>>.

**Table 1.** China's involvement in nuclear arms control, disarmament and non-proliferation mechanisms

Mechanism	China's status	Comments on China's position
<i>Multilateral treaties</i>		
Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water (Partial Test-Ban Treaty, PTBT) <i>Opened for signature 8 Aug. 1963; entered into force 10 Oct. 1963</i>	Not a party	Has observed a voluntary moratorium on atmospheric testing since 1986
Treaty on the Non-Proliferation of Nuclear Weapons (Non-Proliferation Treaty, NPT) <i>Opened for signature 1 July 1968; entered into force 5 Mar. 1970</i>	Party since 1992	Emphasizes the NPT's three-pillar nature, stressing that the success of the non-proliferation pillar is conditional on engaging in nuclear disarmament and on respecting countries' rights to access peaceful uses of nuclear technology
Convention on the Physical Protection of Nuclear Material and Nuclear Facilities <i>Opened for signature 3 Mar. 1980; entered into force 8 Feb. 1987; amended 2005</i>	Party since 1989; ratified amendment in 2009	
Convention on Nuclear Safety <i>Opened for signature 20 Sep. 1994; entered into force 24 Oct. 1996</i>	Party since 1996	
Comprehensive Nuclear-Test-Ban Treaty (CTBT) <i>Opened for signature on 24 Sep. 1996; not in force</i>	Signed in 1996, not ratified	Has declared a moratorium on nuclear testing, like the other nuclear weapon states; ratification considered to be conditional on US and possibly Indian ratification as well as on the credibility of its nuclear deterrent being maintained
Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management <i>Opened for signature 29 Sep. 1997; entered into force 18 June 2001</i>	Party since 2006	
Fissile material cut-off treaty (FMCT) <i>To be negotiated in the Conference on Disarmament (CD)</i>	Member of CD	Has not formally declared a moratorium on production of fissile material but has acknowledged a suspension of production; officially supports a multilateral, verifiable and legally binding FMCT; wants to exclude existing stockpiles; in the past has linked entering negotiations with achieving a treaty on preventing an arms race in outer space
Treaty on the prevention of an arms race in outer space (PAROS) <i>To be negotiated in the Conference on Disarmament (CD)</i>	Member of CD	Treats as a priority due to worries over US dominance in space; has proposed a treaty on the prevention of the placement of weapons in outer space, the threat or use of force against outer space objects jointly with Russia
<i>International agencies and cooperation mechanisms</i>		
International Atomic Energy Agency (IAEA) <i>Established 1957</i>	Member since 1984	
IAEA Safeguards Agreement IAEA Additional Protocol	In force since 1989 In force since 2002	Applies only to civilian facilities
Zangger Committee (Nuclear Exporters Committee) <i>Established 1971–74</i>	Member since 1997	



Mechanism	China's status	Comments on China's position
Nuclear Suppliers Group (NSG) <i>Established 1975</i>	Member since 2004	Critical of its selective implementation in view of Indian-US Civil Nuclear Cooperation Initiative
Australia Group <i>Formed 1985</i>	Not a participant	Maintains a dialogue
Missile Technology Control Regime (MTCR) <i>Established 1987</i>	Applied for membership	Implemented some of its provisions; announced in Nov. 2000 that it will refrain from assisting other countries build ballistic missiles capable of carrying nuclear warheads; has sought possible membership, but has not been invited to join
Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies <i>Established 1996</i>	Not a participant	Maintains a dialogue; has sought possible membership, but has not been invited to join
Proliferation Security Initiative (PSI) <i>Announced 2003</i>	Not a participant	Uneasy with its ad hoc, US-led nature; has cited concerns about the legality of interdictions; supports UN Security Council Resolution 1874, which calls on all states to inspect suspect North Korean exports
UN Security Council Resolution 1540 <i>Adopted 28 Apr. 2004</i>	Voted in favour	Implemented its provisions
Global Nuclear Energy Partnership <i>Initiated 2006</i>	Partner since 2007	
UN Security Council Resolution 1887 <i>Adopted 24 Sep. 2009</i>	Voted in favour	

Source: Drawn in part from Nuclear Threat Initiative, 'China profile: nuclear overview', Sep. 2009, <http://www.nti.org/e_research/profiles/China/Nuclear/>.



Abbreviations

CD	Conference on Disarmament
CTBT	Comprehensive Nuclear-Test-Ban Treaty
FMCT	Fissile material cut-off treaty
GNEP	Global Nuclear Energy Partnership
IAEA	International Atomic Energy Agency
NPT	Treaty on the Non-Proliferation of Nuclear Weapons (Non-Proliferation Treaty)
PAROS	(Treaty on) preventing an arms race in outer space
UN	United Nations



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CHINA AND NUCLEAR ARMS CONTROL: CURRENT POSITIONS AND FUTURE POLICIES

BATES GILL

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