



Asia's Nuclear Future

*Workshop co-hosted by the Lowy Institute for International Policy and
Nonproliferation Policy Education Center,
February 16-18, 2010, Sydney*

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Summary of key issues discussed

This two-day workshop examined the strategic dynamism and complexity of the Asian region, and highlighted that the experience gained in the NATO-USSR nuclear relationship was not immediately applicable to managing Asia's multipolar nuclear future. This needed instead to be managed with an understanding of the region's distinctive international relations and connected issues such as conventional military modernisation, missile defence, space and the proliferation concerns associated with growing demand for nuclear energy. The present uncertainty over the shape and size of nuclear arsenals made managing Asia's nuclear future even more challenging.

The main themes addressed were: US-China nuclear dynamics, Chinese doctrine and capability, China-India relations, Russia-China relations, alliance questions including the future of extended deterrence, nuclear and wider strategic competition in South Asia, proliferation questions surrounding the nuclear energy revival, missile capabilities, missile defences and space, and the opportunities for new arms control and nonproliferation initiatives in the region.

Participants included nuclear and strategic affairs experts from most key powers in the Asia-Pacific, including the United States, China, Japan, India, Pakistan and Australia.

China's nuclear doctrine

There are indications that China's nuclear posture has moved from one of minimum deterrence to limited deterrence in the past two decades, and its no first use policy is becoming increasingly ambiguous. One open question is whether nuclear weapons in China serve as a deterrent to conventional as well as nuclear attacks. Another is how China would define an attack under its no first use policy: a nuclear attack only, a conventional attack upon nuclear sites, an incursion? This raises the question of whether China in fact would contemplate a nuclear first strike at a tactical level. The concept of limited deterrence is advocated by some younger PLA analysts, while much of the older generation remains wedded to the notion that China acquired nuclear weapons solely to prevent coercion.

The effect of Chinese conventional capabilities

China's rapidly expanding conventional military capabilities are a driver for the retention of nuclear arms in the region. For instance, a Chinese anti-ship ballistic missile is expected to be operational soon, and in the longer run China is likely to develop the ability to mount a global conventional precision strike: capabilities of grave concern to the US. Meanwhile, the Chinese are watching with concern US development of conventional ballistic missile and hypersonic boost guide systems that could target strategic targets within China.

Russia-China relations: Moscow's eye on Beijing

Russia's arms control reluctance is driven not only by concerns about NATO, but also latent worries about China. Moscow's perception of a deterioration in Sino-US relations has made it wary of being forced to take sides should conflict occur between the US and China. The failure of Russian military reform over the past decade has forced it to rely heavily on its nuclear arsenal for security both in the European theatre and the Far East, maintaining tactical nuclear weapons to balance NATO conventional forces. As China's military modernisation allows it to wage advanced conventional warfare, Russia considers it must rely on nuclear weapons to balance that conventional threat. Russian territory in the Far East is vulnerable to China. Accordingly, Russia's perceived defence needs regarding China will need to be factored into US-Russia arms control.

Sino-Indian relations

Potential competition and a lack of trust in the Sino-Indian relationship mean that the risk of conflict between these two nuclear-armed states cannot be ruled out. Concerns about energy and sea lane security are adding to territorial and other longstanding tensions. Chinese assistance to Pakistan irks India, and even if that assistance has qualitatively changed since China began joining arms control regimes in the 1990s, the strategic rationale remains the same. It was argued that India cannot compete warhead-for-warhead with China's arsenal, but also that India's 'minimum reasonable deterrent' posture was contingent upon potential adversaries' strength, meaning India would respond as China improved its arsenal.

The strategic dynamic between the two powers was subject to many types of change: in arsenal size, nuclear postures, conventional forces, geopolitical ambitions, political confidence, domestic public pressures, and flux in relations with the US and Pakistan. Participants noted that the China-India border dispute and a perceived lack of transparency in Sino-Pakistani cooperation added to competitive pressures. China's refusal of nuclear dialogue with India on the basis of India's non-membership of the NPT was identified as a potential impediment to future stability.

The future shape of the US alliance system

Nuclear multipolarity in Asia made it harder for the US to maintain regional stability. Another problem was that US defence preponderance globally no longer necessarily applied in the Asia-Pacific, since much US capability was focused outside the region. This troubled US allies, accustomed to US military superiority. One issue considered was whether the credibility of US extended deterrence required the US to maintain short-range nuclear options in Asia. The forthcoming US Nuclear Posture Review would be a vital signal: Washington needed to consider carefully the range of contingencies in Asia for which it might need nuclear weapons. A key challenge was for the US to improve dialogue and cooperation with China while nurturing its alliances. A serious prospect of the US and China working together to address shared regional concerns would require China to engage properly on arms control issues, including being clear about what it could do to ensure nuclear restraint and non-proliferation in the region.

A nuclear-armed Japan?

The question of under what circumstances Japan might consider developing its own nuclear weapons was addressed. The view was put that this would depend largely upon Tokyo's confidence in the US extended deterrent. Other factors noted included how Japan was treated by a stronger China and whether a unified Korea became nationalistic and nuclear-armed. It was argued that if a true US-China condominium became possible, Japan would have to consider all its options, including new alignments (even with Russia) or a military build-up. Yet it was widely recognised that, were Japan to develop a nuclear weapon, the political and potentially economic costs would be very high: in breach of the NPT, Japan would lose external uranium supply, crippling much electricity generation, assuming the NPT rules themselves do not break down with additional deals for non-NPT weapons states in addition to India (e.g., Pakistan and Israel).

Nuclear competition in South Asia

Competition and nuclear rivalry between India and Pakistan were widely seen to be too deeply entrenched to be resolved in the immediate future. Instead, there was a need to focus on minimising risks of conventional conflicts and escalation. Nonetheless, there was considerable recognition of the experience in crafting confidence-building measures in the

India-Pakistan relationship, including on nuclear and missile matters.

Questions were considered about the circumstances under which Pakistan and India might cease production of fissile material for weapons. Questions about the credibility or otherwise of India's no first use doctrine were also discussed, including whether Pakistan's own policy of first use might give India incentive to consider pre-emption. Factors affecting crisis stability, or instability, included India's 'Cold Start' doctrine, changing ISR capabilities in the subcontinent, the development of cruise missile capabilities by both countries, and India's development of missile defences. These are cited, for instance by some in Pakistan, as affecting Pakistan's deterrent. The role of terrorists in precipitating confrontation was also discussed.

To manage nuclear competition, some participants suggested that both countries should hold talks to build on the previous CBMs. Specific measures might include reaching agreed force levels, limiting or eliminating short-range ballistic missile, drawing back forward deployed forces, removing heavy artillery from the Line of Control, establishing risk reduction centres, and ceasing politically driven missile launch 'tests' and eliminating short-range ballistic missile systems on both sides. Questions were raised about whether involving external powers would help or hinder India and Pakistan in reducing tensions. Another area of debate was the possible impact on strategic stability of other countries' missile defence cooperation with India.

Nuclear energy

The view was put that nuclear power is not as efficient or ultimately as affordable as other 'clean' energy sources. All of the nuclear power plants currently under construction in Asia were centrally planned and publicly financed. In light of this, a sound analysis of the economics of nuclear power in countries taking up nuclear power for the first time would need to consider other motives, including keeping options open for developing nuclear weapons. Others argued that nuclear operating costs were low and that some countries genuinely sought to diversify their energy production, a legitimate reason to develop nuclear power.

The proliferation risks from reprocessing were discussed, as was the question of whether states had any sound reasons to insist on reprocessing their own nuclear waste. China and the United States could lead by example in Asia by not reprocessing, thus putting pressure on Japan and South Korea to do the same. Participants agreed that there was no such thing as proliferation-*proof* reprocessing techniques, but diverged on the dangers associated with so-called proliferation-*resistant* reprocessing techniques such as electrolytic reprocessing. While these made it harder to acquire fissile materials, reactor grade plutonium still had to be considered as potentially weapons-useable. Electrolytic reprocessing would make a nuclear device easier to make than otherwise.

One participant highlighted that denying countries the science or uranium to produce nuclear power would not stop a determined proliferator; what was needed was a multifaceted approach that combined institutional and technical barriers to proliferation with enforcement of non-compliance. A new institutional framework in Asia was needed to address proliferation risks, advance multilateral fuel cycle facilities, promote proliferation-resistant technology and pave the way for an Asian nuclear energy community.

Others noted that the threat of cutting off nuclear technologies or fuel was extremely unlikely. Instead, what they called for was a greater understanding of the need to compete nuclear power solutions with non-nuclear ones and that if rules on energy pricing were established that internalised possible costs for carbon, it was unclear if nuclear power could necessarily compete economically against natural gas and other alternatives.

Missiles and missile defences

It was noted that missile defence is no longer an aspiration; the technology now exists and the US and Russia are not the only countries interested in it. China, India, Israel and Japan (in cooperation with the US) also have missile defence programs in varying degrees of development, though there are not believed to be deployable capabilities yet in China or India. It was recognised that interest in missile defences is likely to continue, including due to the perceived inadequacies of deterrence as well as specific security threats, such as missiles originating from the DPRK and Iran. At the same time, the actual and potential development of Chinese missile capabilities was widely seen to be a factor in US missile defence policy.

Options for the US to respond to these trends included seeking to 'devalue' or reduce emphasis on nuclear weapons and missiles, seeking to control missile technology through mechanisms such as the Missile Technology Control Regime (MTCR), or constructing missile defences. To make progress on the 'devaluing' front, it was worth focusing arms control on missiles rather than warheads, since missile reductions were easier to verify and specific ranges could be targeted. Short-range ballistic missiles were suggested as a logical place to begin.

US missile defence and US-Japanese collaboration is oriented toward defending against near-term regional threats. The need for sophisticated tracking and command-and-control systems was driving US cooperation with allies: Washington was moving in the direction of offering missile-defence protection to allies (eg. Turkey, UAE and Japan) in return for placing tracking equipment and interceptors upon their territory. How these 'defensive' security guarantees might interact with extended nuclear deterrence is as yet unknown, and will be important to understand.

There was debate about whether missile defences or offensive missiles – and underlying strategic tensions – warranted greater attention as potentially destabilising factors. One view was that missile defences risked upsetting the strategic balance, especially if they were deployed close to a country they might be used against; another view was that mass deployments of short-range ballistic missiles was a threat that could not be ignored.

Asia's distinct nuclear challenges

Deliberations highlighted at least four areas in which the Asian theatre poses different problems to the Transatlantic and thus requires different solutions. First, Russia will not reduce its weapons solely due to NATO pressure unless its security concerns about China are addressed. Second, the problems posed by missile defence in Asia cannot be solved by talking to Russia alone – institutional mechanisms need to be set up to address them. Third, nuclear energy uptake in Asia is more proliferation prone than in Europe, and the US should take the lead in encouraging sound comparisons of nuclear and alternative energy and proper cost estimates. Fourth, while the INF treaty eliminated entire classes of ballistic missiles in Europe, short- and medium-range missiles still feature prominently in Asia in potentially destabilising ways. A way forward may include for India and Pakistan to show leadership by eliminating short-range ballistic missiles.

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