

Emerging Nuclear Trends in Asia

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Introduction

Post-Cold War, there has been a shift of power dynamics, from Europe to Asia. This shift has seen some favourable and some not so favourable influences in Asia. If Asia has gained from the economic growth of some nations, it has become vulnerable to terrorism, strategic arms race and nuclear proliferation. Since the strategic canvas in Asia is very wide, hence this paper limits to analysing the nuclear trends of the declared Nuclear Weapon States (NWS) in Asia. The common factor here which impacts the trends is China, whether it is the China-Pakistan nuclear nexus in South Asia or the China-North Korea nexus in East Asia; the nuclear flux has its imprints in these two relationships.

The Strategic Environment

The old order has lapsed and the new order has yet to take shape, hence in this transition phase, the future trajectories can be gauged through the build-up of nuclear weapons in Asia. The nuclear binaries of Cold War have given rise to a more multipolar nuclear order. The dissemination of nuclear power to new actors has led to a more complex matrix and the control has become that much more evasive. The use of sub-conventional war under the nuclear garb has led to what strategists define a stability-instability paradox. There is a constant struggle to achieve a balance of power through nuclear deterrence which nations believe can bring peace and stability. If in South Asia the nuclear dynamics of Pakistan-India and China (The latter because of its geographical proximity with India and its alliance with Pakistan) are significant factors; then in East Asia, it is the 'Extended Nuclear Deterrence' of US and the power relation between China and North Korea that impact stability. The lowering of threshold by both Pakistan and North Korea through their strategy of tactical nuclear weapons in case of Pakistan, and the constant endeavour of North Korea to develop long range ballistic missile capabilities, is creating instability

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in the region. The charade of idealism and realism is much more pronounced in Asia than in any other region. The demonstration of power through the doctrinal caveats in the form of 'First Use', and 'Active Defence' are more distinct here. The arms build-up and the ambition of rising powers to develop niche technologies and carve a space for themselves are already challenging the current power structure. The emerging nuclear trends are thus the signposts, which can aid in deciphering the future.

Pakistan's Nuclear Trajectory

Historically, Pakistan's insecurities had mainly been India centric, and Pakistan now believes that it has tried to counter its insecurities, through its development of nuclear arsenal. Pakistan's nuclear strategy revolves around 'First Use', and a gradual 'Option Enhancing Policy'¹, through a step by step escalation. The policy includes; first a public or private warning, followed by use of nuclear weapon(s) on Pakistan's soil against foreign (or India) attacking forces, and ultimately the use of nuclear weapon(s) against critical but purely military targets on foreign (or Indian) soil.² They have also gone to the extent of defining their four thresholds, on violation of which they will go in for a nuclear response; those, according to General Kidwai being Spatial, Military, Economic and Political.³ Thus there is clarity in their thought process, and they have stated quite often that "We will use nuclear weapons if attacked by India even if the attack is with conventional weapons".⁴ Thus, they have developed their force structure accordingly.

Their force structure is based on the principles of achieving a "Full spectrum Response". Hence, Pakistan has built an extensive nuclear infrastructure comprising facilities for uranium mining, uranium enrichment, reactor fuel fabrication and spent fuel reprocessing units, thereby allowing it to produce not only Highly Enriched Uranium but also Plutonium.⁵ Pakistan may have produced 12-24 kg/year of plutonium and has an inventory of 100-200 kg of plutonium and 16-40 plutonium weapons,⁶ and their inventory is constantly growing. Pakistan's missile ranges vary from 60 km Tactical Nuclear Weapons (TNW) 'NASR' (assumed to carry a sub kiloton nuclear war head), to its MRBMs-Shaheen. The trend is now towards developing a 'Sea Based Deterrence'. It is attempting to mate nuclear tipped Cruise missiles with conventional diesel-electric submarines, thus developing a sea-based variant of

its nuclear-capable, indigenously produced Babur missile (Pakistan navy conducted cruise missile tests from naval platforms in 2012).⁷ Though Indian military is confident of countering a Pakistani attack but the Pakistan's strategic trends need to be observed. The major factor in TNWs is that of nuclear weapons becoming vulnerable to theft, accidents and the risk of unauthorised launch. Pakistan is a hub for terrorist organisations and the possibility of non-state actors acquiring nuclear weapons cannot be ruled out. Also, Pakistan's civil nuclear energy programme is growing due to Chinese assistance, and due to lack of global nuclear safety and security standards there is always a possibility of non-state actors acquiring the fissile material to make a dirty bomb. Hence, for India the major threat emanates from 'Nuclear Terrorism'.

Trends in China's Nuclear Force Structure

The major change in China, since December 2015, has been the replacement of China's Second Artillery Force (SAF) with the PLA Rocket Force. Though this new Force is bound to have all the characteristics of SAF and the core function will continue to remain enhancement of China's strategic power. However, the significance is, that the new Force will now be considered as the fourth branch in China's military, on equal footing with the PLA Army, Navy and Air Force, and not an extension of the army looking after the land missile forces. President Xi Jinping called the PLA Rocket Force the "core force of strategic deterrence, a strategic buttress to the country's position as a major power, and an important building block in upholding national security". China's conventional missile force will also be under the rocket force. Hence, the policy of "Dual Deterrence" will become more nuanced. He further stated that the new Force needed to enhance China's nuclear deterrence, its counter-strike capabilities and to improve China's ability to conduct medium and long-range precision strikes.⁸

To achieve the above goal, China has modernised its nuclear forces by developing new generation of mobile missiles, with warheads consisting of Multiple Independent Re-entry Vehicle (MIRVs) and penetration aids. The strategic trend is to enhance its sea based nuclear deterrence capabilities. Its sea-based platforms include JIN-class SSBN and eventually this will carry CSS-NX-14 (JL-2) SLBM with an estimated range of 7,400 km and together these will give the PLA Navy its first credible long-

range sea-based nuclear capability⁹. Its land based platforms already have the DF-31A ICBMs and has also successfully tested advanced DF 41 ICBMs with MIRV capabilities. It has upgraded DF5A ICBM with MIRVs and an advanced variant of the DF5, the DF-5B has also been developed. Rick Fisher, a China military analyst, comments “When you add the possibility of MIRVed DF-5s exceeding 20, to the imminent deployment of the road-mobile and rail-mobile MIRVed DF-41, and the potential for a MIRVed version of the DF-31 called the DF-31B, it becomes possible to consider that China may reach 500 or more ICBM warheads in the next few years”.¹⁰

Training is another area where one can find lots of exercises being conducted by the Chinese forces. China’s official media also cites numerous Second Artillery Force training exercises featuring manoeuvre, camouflage, and launch operations under simulated combat conditions which are intended to increase survivability along with increased mobility and survivability of the new generation of missiles. These technologies and focussed training programmes strengthen China’s nuclear forces and bolster its strategic strike capabilities.¹¹ The other area where China is working in a major way is the hypersonic glide vehicle and Ballistic Missile Defence. China has already tested a hypersonic glide vehicle in 2014 and six tests have been conducted so far. China’s negotiations for procurement of the new S-400 air defense system from Russia and China’s S-300PMU and HQ-9 (range 200km)_SAM systems and the DF-21D (range 1,500km) anti-ship ballistic missiles (ASBM) will all serve as force multipliers.¹² Its confidence in its nuclear and conventional deterrence vis-a-vis the United States could make China even more aggressive, against its neighbours in maritime and land border disputes.¹³ Thus with such an arsenal China has the capability for escalation dominance vis-à-vis states with weaker nuclear capability.¹⁴

North Korea’s Nuclear Politics

In 2012, North Korea declared itself as a Nuclear Weapon State. The main motive was to have a nuclear deterrence against the US and to develop capabilities to counter the American hostility towards them. In spite of global condemnations, North Korea, continues to conduct nuclear and ballistic missile tests. Often there are debates regarding the legitimacy of these tests; as recently analysts

questioned the North Korean claim of conducting a Hydrogen bomb test, and their claim last year of launching ballistic missiles from a submarine. However, the fact remains that with these nuclear and missile tests, North Korea is taking a leap forward in nuclear weapons capabilities. The current President Kim Jong Un, is more active and aggressive than his predecessor, and he is trying to resume the policies of erstwhile leader Kim Il Song namely - "*Pyongjin Strategic Line*". This policy expounds the development of economic and military power simultaneously. According to Bank of Korea the North Korean's economic growth has seen an upward trend since 2013 (though the trade has mainly been with China) and the military spending has been stagnant. The recent UN sanctions against North Korea if implemented in totality may then impact this fledgling growth. Nevertheless, in all probability Kim Jong Un will continue to further consolidate his power base through fear politics and may also continue its series of missile launches and nuclear tests. Its aggressive behaviour can be checked only if China supports and implements the UN sanctions in areas where it hurts North Korea the most, like blocking its access to international ports, tighten restrictions on North Korean banks' access to the international financial system and call for blacklisting a number of individuals and entities involved in the tests.¹⁵

As far as East Asia is concerned it would be a significant factor if Japan, South Korea and the US successful in developing a trilateral strategic approach, because this security alignment can then put pressure on China to reassess its posture. North Korea's recent tests have already derailed the relationship between China and South Korea as the latter criticised China for interfering in its internal affairs when China objected to the US proposal of deploying American Missile defence system on the South Korean territory. If, however, the US fails to provide the extended deterrence to its allies then more countries joining the nuclear bandwagon cannot be ruled out in East Asia.

India's Nuclear Capabilities and Challenges

India's nuclear arsenal and missile capabilities have grown, though at a slower pace in comparison to other nuclear weapon states in Asia. India is specially building its second strike capabilities by developing its triad. Nuclear submarine 'Arihant' and other efforts in missile development (the K series SLBMs) along with upgradation

of the naval wing with niche technologies through Indo-US collaboration, is a step in the right direction. India's AGNI series with its advanced planned ICBMs with MIRV capabilities can help in strengthening India's nuclear deterrence. India's development of Ballistic Missile Defence (BMD) and its plans to procure S-400 air defense system from Russia will help in countering the threat arising from the enhanced number of SRBMs deployed in its neighbourhood. However; the three fold challenge which India faces is : firstly, the process of indigenisation and modernisation of weapons in India is slow, inconsistent and marred with bureaucratic delays. This delays deployment of new weapons, thus leading to an increasing strategic gap which impacts deterrence. Secondly, due to India's geographic proximity to Pakistan, India is vulnerable to nuclear terrorism. There is always a possibility of a "Radioactive Dispersal Device (RDD)" (which is a conventional bomb spiked with radioactive material) or 'Dirty Bomb' attack. Hence, the Indian government needs to sensitise its people and security forces (police and paramilitary forces) regarding this threat. Lastly, Pak-China collusive attack though a distant possibility cannot be ruled out because China is in the process of developing economic corridors through Pakistan. For China, Pakistan is geo-politically more important to it now than in the past, primarily because of the connectivity which Pakistan provides to China in terms of land corridors and also the Chinese accessibility to Gwadar port.

Conclusion

The emerging nuclear trends in Asia suggest that nuclear weapons are going to play an important role in Asian nations' security architecture. Nuclear weapons are here to stay, hence one needs to observe the emerging patterns. Currently nations with weak conventional arsenal are going to rely more on nuclear weapons and Paul Bracken has rightly pointed out "the nations believe that nuclear weapons bring a status quo for nations who have a depleted conventional armoury hence contrary to western political preferences of conventional weapons nuclear weapons in Asia will become probably more, not less important in Asia as the region undergoes significant power shift". Thus it clearly appears that 'The theory of Deterrence' is more relevant in Asia, and the nations will continue to rely on this theory to bring stability. Hence, it becomes imperative for India to not only develop credible nuclear

deterrence but also to strengthen its nuclear signalling mechanisms, because it's only when the adversary recognises a nation's capabilities to hurt them that the status quo is maintained and the chance for stability bolstered.

Endnotes

¹ *Lodhi, Lieutenant-General (retired) FS (April 1999), "Pakistan's Nuclear Doctrine", Lieutenant-General Sardar FS Lodi, former operational commander of Pakistan's joint Special Forces command. Islamabad, Pakistan: Defence Journal of Pakistan.*

² *Ibid*

³ Email correspondence with Paulo Cotta-Ramusino, May 19, 2012. As quoted in , *Pakistan's Nuclear Strategy And Deterrence Stability* By Michael Krepon at http://www.stimson.org/images/uploads/research-pdfs/Krepon_-_Pakistan_Nuclear_Strategy_and_Deterrence_Stability.pdf

⁴ *Lieutenant General Sardar F.S. Lodhi (Retd., Pakistan Army), "Pakistan Nuclear Doctrine", Pakistan Defence Journal, 1999*

⁵ *Khanijo Roshan, 'Complexities and Challenges of Nuclear India', Vij Publications, 2015*

⁶ *Overcoming Pakistan's Nuclear Dangers', Mark Fitzpatrick, IISS, 2014*

⁷ *Rehman Iskander, 'Murky Waters', Carnegie Endowment for International Peace, 2015*

⁸ *China establishes Rocket Force and Strategic Support Force, Ministry of National Defence, The People's Republic of China, at <http://eng.mod.gov.cn/ArmedForces/second.htm>*

⁹ *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2015 at http://www.defense.gov/pubs/2015_China_Military_Power_Report.pdf*

¹⁰ *Confirmed: China is Upgrading ICBMs With Multiple Warheads, By Franz-Stefan Gady, February 15, 2016 at <http://thediplomat.com/2016/02/confirmed-china-is-upgrading-icbms-with-multiple-warheads/>*

¹¹ *See. N-9, Annual Report to Congress:*

¹² How China's new Russian Air Defense System could change Asia, Timothy R Heath, *defense research analyst, RAND Corporation* at <http://warontherocks.com/2016/01/how-chinas-new-russian-air-defense-system-could-change-asia/>

¹³ Benjamin Schreer, "China's development of a more nuclear Second Strike Capability: Implication for Chinese Behaviour and US Extended Deterrence", in Roundtable, Approaching Critical Mass: Asia's Multipolar Nuclear world, National Bureau of Asian Research, at <http://ASIAPOLICY.NBR.ORG>

¹⁴ Tellis Ashley, 'China India and Pakistan-Growing Nuclear Capabilities with no End in Sight', Carnegie Endowment, 25 February 2015

¹⁵ U.S., China agree on draft North Korea sanctions resolution at U.N.: envoys United Nations | BY Lousi Harbonneau and Michelle Nicholas, at <http://www.reuters.com/article/us-northkorea-nuclear->