URL: http://dx.doi.org/10.31703/gpr.2020(V-I).37

👤 Cite Us 🗘

Citation: Leghari, F. A., Qaisrani, I. H., & Shaukat. (2020). Pakistan's Low Yield Nuclear Weapons and Indian Option of Limited War. Global Political Review, V(I), 342-351. https://doi.org/10.31703/gpr.2020(V-I).37

Vol. V, No. I (Winter 2020)

Pages: 342 - 351

Pakistan's Low Yield Nuclear Weapons and Indian Option of Limited War

Farooque Ahmed Leghari^{*} Irfan Hasnain Qaisrani[†] Shaukat[‡]

p- ISSN: 2521-2982

- e- ISSN: 2707-4587
- L- ISSN: 2521-2982

Headings

- Introduction
- Indo-Pak Crisis 2008 and Threat of Limited War
- Indo-Pak Crisis 2016 and Threat of Limited War
- Indo-Pak Crisis 2019 and Threat of Limited War
- India and Pakistan's Changing Military Doctrines
- Conclusion
- <u>References</u>

Since the publication of the Cold Start Doctrine by Abstract India in 2004, India had been preparing for launching a limited war against Pakistan. In the face of an Indian threat of limited war, Pakistan had no other option but to go for the manufacture of low yield nuclear weapons. With the introduction of the low yield nuclear weapons by Pakistan with an official announcement in 2015, Pakistan had been able to contain Indians from pursuing the path of limited war against it. This paper has looked into the role Pakistan's low yield nuclear weapons in dealing with the threat of limited conventional war under the Indian Cold Start Doctrine. Firstly, it has explored three Indo-Pak crises with limited war dimensions, which occurred subsequently in 2008, 2016 and 2019 and brought a fear of limited war on Pakistan's side. Secondly, it has explained the changing military doctrines of India and Pakistan and further highlighted the gap which led to the emergence of India's Cold Start Doctrine and Pakistan's low yield nuclear weapons. Third, it has looked at the role of Pakistan's low yield nuclear weapons in creating a roadblock in the Indian Cold Start Doctrine. Finally, it has given a discussion and summary.

Key Words: Nuclear Weapons, Limited War, Cold Start Doctrine, Pakistan.

Introduction

Since India had adopted Cold Start Doctrine as a limited war military strategy in 2004, Pakistan seemed concerned about the new Indian doctrine and has endeavored to develop low yield nuclear weapons to deal with the Indian threat of limited war and had decided to stop India from utilizing the option of limited war against Pakistan with all its options available including the use of low yield nuclear weapons against Indian forces. This concern can better be understood from the words of Syed Tariq Fatimi, Pakistan's Ex Ambassador and Special Assistant to Pakistan's Prime Minister on Foreign Affairs (7 June 2013 to 28 July 2017), who said, "I (Fatimi) want to make it very clear that if Indians have launched this Cold Start Doctrine with the intention of launching an adventure against Pakistan and forcing Pakistan to simply accept it; this is not going to happen" (Fatimi, S, T., Expert Informant, Interview, 30 October 2015). These above words of Fatimi clarify that Pakistan was not going to give India to avail an opportunity of launching a limited war against it and will stop Indians from utilizing all options available to it. Pakistan's first confirmation regarding

Email: shaukat@awkum.edu.pk

^{*} Assistant Professor, Department of International Relations, University of Sindh, Jamshoro, Sindh, Pakistan.

⁺ Assistant Professor, Department of Humanities and Social Sciences, Bahria University, Islamabad, Pakistan.

[‡] Lecturer, Department of Political Science, Abdul Wali Khan University Mardan, Mardan, KP, Pakistan.

the manufacture of its low yield nuclear weapons emerged when it is Foreign Secretary Aizaz Chaudhary said while addressing a media briefing in Washington on 18 October 2015, "Pakistan has made low-yield nuclear weapons to bridge the gap for a war that India had created through its Cold-Start Doctrine" (Dawn 2015).

Pakistan's low yield nuclear weapons have been seen making Indian nuclear doctrine difficult in dealing with Pakistan. Pakistan's threat with low yield nuclear weapons had made Indian conventional superiority handicapped. While some cry in India to bring changes into its nuclear doctrine with the manufacturing of low yield nuclear weapons, others are in line with India's current nuclear doctrine. Low yield nuclear weapons were first introduced in Europe by the US and Soviet Union during the Cold War era (Goshal 2015). Though the nuclear arms control measures like Intermediate-Range Nuclear Forces (INF) Treaty, Strategic Arms Limitation Talks (SALT) and Strategic Arms Reduction Treaty (START) have made good progress in reducing the number of strategic nuclear weapons, little has been done to reduce the number of low yields nuclear weapons in the world (Ghoshal 2015: 2).

Indo-Pak Crisis 2008 and Threat of Limited War

The findings revealed that although India did not opt for a limited war against Pakistan during the Indo-Pak 2008 crisis, no one doubted the severity of the Mumbai crisis. The findings further narrated that although some Indian troops were moved from one place to another on the border, it was not a war mobilization. The findings further explained that the initial phases of the Indian Cold Start Doctrine did not allow India to go after Pakistan in the 2008 crisis.

The people were busy in their daily routine in the Indian city of Mumbai when the terrorists hit the city and created a panic. There were ten terrorists. Terrorists divided them into different groups and started targeting different places in the city. They started killing people at various places, including railway stations and major hotels. They took control of various places, including hotels. Indian security forces responded immediately, but it took them four days to capture and kill terrorists.

The US and Indian intelligence agencies have perceived a terrorist threat. According to the report, the US intelligence has communicated to the Indian government that the terrorists are planning a major terrorist attack on the Indian mainland but the intelligence agencies of the two states were not successful in tracing the terrorist target. The Indian government has taken steps to counter any terrorist attack in the country. But the terrorists' plan became successful as they entered Mumbai on 26 November 2008 and started hitting their targets. The two terrorists attacked Leopold Café killing 15 people and injuring many others. Terrorists also planted two bombs in taxis which killed five people and injured many others. Four terrorists entered Taj Mahal Hotel, two in Oberoi Trident, two into Nariman House, and two of them entered the passenger hall of the Chhatrapati Shivaji Terminus railway station with firing and throwing hand grenades, killing 52 people and injuring 109.

The terrorist attack was of high intensity and put severe repercussions. Indian troops responded fast, but they could not succeed to control the terrorists on an immediate basis as it took them about four days to kill nine terrorists and capture one. India alleged that Jamaat ud Dawa, a terrorist group having its bases in Pakistan for launching Mumbai terrorist attacks with the backing of Pakistan's intelligence agencies. Pakistan rejected the Indian allegation and called it Indian propaganda against it. India asked Pakistan to hand over 40 terrorists involved in the planning of the terrorist attacks on its mainland and to take action against Jamaat ud Dawa and other terrorist groups. It also discontinued its ongoing negotiations with Pakistan.

Pakistan condemned the terrorist attacks and claimed that it has no links with the Mumbai attacks. It asked India to provide proof about the people involved in Mumbai terrorist attacks and stated that once it is proved that if any Pakistani is involved in a terrorist attack against India, it will bring that person to justice according to its own law but refused to hand over 40 Pakistanis to India. India produced a copy of the proofs to Pakistan. The government of Pakistan stated that it is looking at the proofs, and if it finds original,

then it will take action against those people involved in terrorist attacks in Mumbai, but the things were going so slow that it did not give any result.

The international community, including the United States and the United Kingdom, started playing its role to reduce tension between India and Pakistan. The United States and the United Kingdom tried to convince the two states that war is not going to benefit any side. The international community became successful in melting the ice between the two nuclear-weapon states. And finally, the tension between the two states started defusing when Pakistan, under extreme pressure from the United States and the United Kingdom, closed some of the offices of Jamat ud Dawa and made some of its activists under house arrest and closed its websites (Ganguly 2009).

India mobilized its forces at some places on the border with Pakistan, but it was not a war mobilization that could result in conventional war between the two South Asian nuclear-weapon states. Pakistan also did mobilize some of its forces on the border, but it was not a war mobilization. In this connection, Kidwai witnessed:

Though Indians deployed forces in South Barmer, Jaisalmir and Jodhpur and even in Pokhran etc. opposite to Pakistan's province of Sindh, in every crisis, they deploy over there, so they deployed, they also deployed in Western Punjab and Eastern Punjab, but practically, they realized that this has happened but it needs to be established, and in any case, Pakistan counter mobilized, and the nuclear factor also played its role over there (Kidwai, K, A., Expert Informant, Interview, 19 November 2015).

Although Indian media created war hype and Indian politicians threatened Pakistan with stern action, India did not go for a war mobilization against Pakistan. Indians have always been in search of space for conventional war against Pakistan and denying the fact that nuclear-weapon states do not fight a conventional war because it always keeps the fear of nuclear confrontation. The world has not noticed any conventional war among the nuclear-weapon states, the United States, Soviet Union (Russia), Britain, France and China, and further, these nuclear weapon states are engaged in dialogue on Syria Crisis or South China Sea crisis and in South Asian case, India is not admitting this fact that nuclear-weapon states do not engage into conventional war against each other (Kidwai, Expert Informant, Interview, 19 November 2015).

Indian intention to fight a limited war against Pakistan under nuclear overhaul seemed difficult to be justified as no direct war had been experienced among the nuclear weapons states in the world. In this connection, Kidwai argued that the Indian Cold Start Doctrine is far away from reality and can be drawn in a theoretical framework, but on the practical ground, it is almost impossible to practice it on the battlefield, and that is visible during the Indo-Pak 2008 crisis that they could not operationalize it against Pakistan. During the Mumbai crisis in 2008, the real test came for the Indian Cold Start Doctrine, but it failed as India did not opt for a limited war against Pakistan (Kidwai, K, A., Expert Informant, Interview, 19 November 2015).

Although the Mumbai crisis was of serious nature, India did not opt for the option of conventional war against Pakistan because of the early stages of the Cold Start Doctrine. Both Pakistan's nuclear weapons and the US role helped to avert the crisis between India and Pakistan. In this connection, Akram said that the Indian Cold Start Doctrine was evolving during the 2008 Mumbai crisis, so it was not in the position of actual operationalization, and further Indians were cautious during the 2008 crisis because they knew one thing that if they initiate an attack against Pakistan, then no one knows what would be its result as Pakistan will also retaliate and that thing basically stopped them from going after Pakistan during 2008 Mumbai crisis (Expert Informant, Interview, 14 November 2015).

To sum up, with the experience of the Indo-Pak 2001-02 crisis, Indians had left the option of a fullfledged conventional war against Pakistan. Since Indians started the Cold Start Doctrine in 2004, there was a fear on Pakistan's side that India could go for a limited conventional war against Pakistan during the 2008 crisis, but due to the early stages of the Cold Start Doctrine, India did not opt for the option of limited war.

Indo-Pak Crisis 2016 and Threat of Limited War

Kashmir saw another episode of violent protests and insurgency in 2016 after the killing of young Kashmiri insurgent leader Burhan Wani in a clash with the Indian military. This incident led to a severe crisis in Indian held Kashmir as anti-Indian protests continued for months, which resulted in heavy casualties and left thousands of people injured in the Indian military's firing. This new wave of violence further increased the number of militant attacks on the Indian army. India alleged Pakistan of its involvement in deteriorating the situation in Indian held Kashmir. In the meantime, the militants attacked Indian military headquarters in Kashmir on 17th September 2016, which left 17 Indian soldiers dead (Safi, 2016).

India facing extreme anger inside the country, alleged Pakistan of its support to militants and stated that the militants were coming from Pakistan for launching attacks against the Indian military. This incident fueled the fire in Indo-Pak relations which were already in troubled waters. Indians said that they would take action against the militants who are responsible for this attack. The situation became serious when India started threatening Pakistan with severe consequences. Pakistan started taking all major steps to secure it against any Indian military adventure. Pakistan's main motorway was closed for Pakistan Air Force (PAF) exercises and images of Pakistani Air Force Aircrafts landing on motorways got headlines in the media. This step showed the severity of the situation between the two states during this crisis.

Both states were indulged in continuous clashes on the border during the crisis period. In the meanwhile, Indians claimed to launch surgical strikes in Pakistani controlled area of Azad Kashmir. India claimed that its forces entered Pakistani territory, destroyed six terrorist launch pads and killed 40 terrorists who were planning to launch terrorist attacks on the Indian mainland. Pakistan denied Indian claims of surgical strikes and stated the official position that there had been heavy firing on the border between the forces of the two countries in which both sides' some soldiers also lost their lives. In this connection, the international media reported heavy clashes between the two countries on the border but did not borrow Indian claim of launching surgical strikes inside Pakistani controlled Azad Kashmir. The defence analyst Prof. Dr Ayesha Siddiqa, while talking to BBC Urdu, said that there had been some movement on the border in which Indian soldiers entered into Azad Kashmir, but their movement was about 200 meters and not two kilometres as claimed by Indian politicians (BBC Urdu, 30 September 2016). It was believed that Indian action against Pakistan in the shape of surgical strikes was dangerous in the sense that it could have brought Pakistan's response as India faced an adversary which had used nuclear weapons as a shield to continue sub-conventional warfare against it in the region (Joshi 2016).

The clashes between India and Pakistan continued for many days in which the two parties alleged each other of ceasefire violations and killing each other's soldiers. The major powers, including the United States, asked the two states to have patience. It was good luck that Pakistan denied the Indian claim of launching surgical strikes on its territory; otherwise, there was a probability that the crisis would have been converted into a conventional war. If we see a hypothetical scenario in which Pakistan had accepted that Indians launched surgical strikes inside Pakistani controlled Azad Kashmir, then its government and forces had been under extreme pressure from its people for a counter-attack. If Pakistan had gone for a counter-attack on Indian territory, the situation between the two countries would have worsened. This chain of attack, counter-attack could have led the two nuclear-weapon states towards conventional war. Although Pakistan's low yield nuclear weapons played its role in averting limited conventional war between India and Pakistan during Indo-Pak 2016 crises, it could not stop Indian forces from entering Pakistani controlled areas of Azad Kashmir. It was good luck that Pakistan rejected the Indian claim of surgical strikes and did not go for counter strikes against India.

Indo-Pak Crisis 2019 and Threat of Limited War

The latest crisis during Modi's period between India and Pakistan was created in 2019. It was more severe than the 2016 crisis as Indian Air Force crossed into Pakistan's airspace and dropped their payload in an

uninhabited area. India claimed that it had targeted terrorist groups in Balakot, Khyber Pakhtunkhwa and had killed a big number of terrorists who were planning to launch terrorist attacks against India. Pakistan denied an Indian claim and clarified that Indian fighter planes entered Pakistan's airspace, but they quickly returned when they were chased by Pakistan Air Force (PAF). The next day witnessed Pakistan Air Force aircraft targeting the plain areas in Indian held Kashmir. They were chased by the Indian Air Force. PAF successfully downed one Indian Aircraft and had captured one of their pilots. Pakistan released the Indian pilot the next day as a goodwill gesture. India was planning to go for missile strikes against Pakistan, but looking at the severity of the crises, did not opt for that option.

To sum up, the Indo Pak crises in 2016 and 2019 had the germs of the limited conventional war. In these two crises, the situation was completely changed in comparison to the Indo Pak 2008 crisis as Pakistan had already officially introduced its low yield nuclear weapons in 2015. In the presence of Pakistan's low yield nuclear weapons, it was almost impossible for India to initiate limited conventional war against Pakistan. Although India claimed to launch surgical strikes inside Pakistani controlled territory of Azad Kashmir in 2016 and airstrikes in 2019 it did not opt for the option of limited war against Pakistan. After possession of low yield nuclear weapons, Pakistan seemed safe against the Indian threat of limited conventional war.

India and Pakistan's Changing Military Doctrines

The findings revealed that the space available for war between India and Pakistan in the presence of nuclear weapons on the two sides forced the two states to bring changes in their conventional and nuclear doctrines. The findings further revealed that while India wanted to take advantage of space available at the tactical level initiated Cold Start Doctrine, Pakistan countered it by developing low yield nuclear weapons.

The Indo-Pak Kargil conflict gave India justification for launching a conventional conflict against Pakistan under the nuclear umbrella. This, however, made Pakistan feel worried and led it to pursue manufacturing of low yield nuclear weapons as a means of deterring India from initiating limited conventional war against it. Pakistan believed that it could deter the Indian Cold Start Doctrine with its low yield nuclear weapons and showed its strong will to use it against Indian forces in any Indian initiated a limited conventional war against Pakistan (<u>Sethi 2014</u>). In this connection, <u>Sethi (2014)</u>, taking the Indian side, said that India should communicate Pakistan of its military's preparedness to fight in nuclear warfare:

It should also be widely known that Indian troops have the ability to fight through tactical nuclear use. This would send a message of preparedness to handle battlefield use of nuclear weapons without bringing conventional operations to a halt or even confronting the political leadership with the choice of war termination, as assumed by Rawalpindi (<u>Sethi, 2014</u>).

The above words of Sethi meant that India should tell Pakistan about its preparedness to fight against Pakistani forces even though the low yield nuclear weapons are being used from Pakistan's side. According to Sethi, this will bring an end to Pakistan's blackmailing tactics against India.

India has been taking all its measures to counter Pakistani movies. In this connection, it has been working on the modernization of its strategic nuclear weapons. Furthermore, it has also been progressing on its missile programme. In this connection, <u>Saran (2013)</u> argued that India had been significantly progressing in the modernization and operationalization of its strategic assets; however, the details regarding this development are rarely shared with the public. Furthermore, <u>Sawhney (2014)</u> said that India should focus on its ballistic and cruise missile technology for strengthening its credible minimum deterrence rather than reconsidering 'NFU', i.e., India's No First Use posture, because 'NFU' posture has been successfully serving Indian interests.

While Joshi (2014) opposed Sawhney and argued that Indian nuclear doctrine needs to be updated as words like "No First Use" or "Massive Retaliation" are merely for policy declarations. In this connection, <u>O'Donnell (2017)</u> went against Joshi and argued that the Indian nuclear doctrine is on the right path and presents no such need for Indians to adopt doctrinal changes. Indians need to remain firm on sustained

'minimum nuclear deterrence' capability. Indians needed to bring some changes in their nuclear posture that minimum deterrence should serve the region in a better way. Furthermore, <u>Ahmed (2008)</u> took Joshi's side and argued that India's new draft declaration on its nuclear doctrine in 2003 mentioned "massive retaliation" against its adversary in response to its first use of nuclear weapons against India. However, in contrast, the earlier draft given by the Indian government in 1999 mentioned that in response to any adversary nuclear attack on India, it will launch "punitive" strikes against the adversary (<u>Ahmed 2008</u>).

However, the changes have also occurred in Pakistan's nuclear doctrine as it feared the threat of any Indian initiated limited conventional war. Pakistan has changed its nuclear posture after its nuclear weapons tests in 1998 (Narang, 2010). The reason behind Pakistan's changing nuclear stance is India's increased military strength and in relevance with this Nye said, "Indian conventional superiority enhances Pak nuke risk-taking" (Nye, J, S., Expert Informant, Email Interview, 9 February 2016). If Indians think that by initiating Cold Start Doctrine, they can suppress Pakistan, it is not going to happen, and Pakistan's public, political leadership and military are on the same page that if India thinks of going for any aggression against our mainland, we have all options open (Fatimi, S, T., Expert Informant, Interview, 30 October 2015). Furthermore, Fatimi added:

Pakistan had no other option but to make it very clear that if Pakistan is faced with Indian adventure and God forbid if India's massive conventional military superiority enables it to hurt Pakistan, then all options will be available to Pakistan's leadership (Fatimi, S. T., Expert Informant, Interview, 30 October 2015).

The above said words of Fatmi meant that Pakistan being afraid of Indian massive conventional military capabilities, which can hurt it, has become more dependent on its nuclear weapons for security.

The Cold Start Doctrine, which is causing Pakistan to worry, is basically based on the idea of fighting a limited war with limited objectives, limited weapons and on a limited area. Cold Start Doctrine is India's turnaround from the Sunderji doctrine, which was based on the principle "mobilize and hit", but Cold Start Doctrine has changed this circle, and now it is about "hit and mobilizes". India wanted to take benefit of the gap at the tactical level. Pakistan became conscious and started working on low yield nuclear weapons, and with the test of NASR missile, Pakistan created a serious roadblock in the way of Cold Start Doctrine and now has achieved the stage of "Full Spectrum Deterrence" with the development of low yield nuclear weapons and these weapons are so dangerous that it can take away three, four, five or any number of independent battle groups (IBGs) (Kidwai, Expert Informant, Interview, 19 November 2015).

Both India and Pakistan are not clear about their standoffs as Pakistan claims that it will respond to any Indian conventional military assault with low yield nuclear weapons while India says that it will respond to any such attack with low yield nuclear weapons from Pakistan's side on its forces inside India or on Pakistan's territory with massive nuclear strikes, but the two South Asian nuclear powers know each other's limits. In this connection, Marwah said that the two states are indulged in the relationship of "balance of terror" and cannot do much other than the statements, and its example can be seen during the Mumbai crisis in 2008, India did not think of the option of the war against Pakistan and invested its energy on other options of making intelligence more effective and well-equipped counter-terrorism force etc. (Marwah, O., Expert Informant, Email Interview, 25 January 2016).

There are many loopholes on the Indian side as Indian conventional, and nuclear doctrines are not up to the mark in its comparison with Pakistan. The lack of Indian military preparedness or mobility contributed to averting conventional war between India and Pakistan during the previous crisis. Pakistan's No First Use policy and its willingness to use low yield nuclear weapons even on its own territory in response to any Indian incursion have, on the one hand, become successful in deterring India, but on the other hand, it has increased the risk factor that any such crisis as Mumbai can lead the two states to a conflict reaching the escalation ladder. There is also an issue of understanding on the two sides as India has opted for the policy of No First Use (NFU), which means nuclear weapons are only the weapons of deterrence whereas Pakistan has a different posture where it can use its nuclear weapons in any type of war or conflict (Das, Expert Informant, Email Interview, 9 February 2016). Although the nuclear weapons have produced caution between India and Pakistan but failed to avert the chances of any accidental war between the two countries and while discussing 2008 crisis, Nye added, "2008 crisis illustrated that the third-party intervention in the crisis made possible complications in the calculations of the actors involved in the relationship of deterrence" (Nye, J, S., Expert Informant, Email Interview, 9 February 2016).

To sum up, both states had been busy countering each other's moves. If India goes ahead to take advantage of space for a limited war at the tactical level by initiating Cold Start Doctrine, Pakistan responds by manufacturing low yield nuclear weapons to deal with the Indian threat. Further, the two states' positions regarding the use of nuclear weapons have also been changed. Both India's Cold Strategic Doctrine and Pakistan's low yield nuclear weapons are a serious threat to the strategic stability in the region.

Conclusion

After the start of the Indian Cold Start Doctrine in 2004, India and Pakistan had faced three crises in 2008, 2016 and 2019 with the dimension of limited conventional war, but the limited war did not occur, and the credit for this goes to Pakistan's low yield nuclear as it stopped Indians from pursuing the option of limited war. In the first crisis, which occurred in 2008 after terrorist attacks in Mumbai, it was noticed that Indians were not opting for the option of limited war against Pakistan. The reason given behind the Indian restraint was the initial stage of the Indian Cold Start Doctrine. The second crisis occurred between India and Pakistan after an insurgency in Indian held Kashmir in 2016. This crisis between India and Pakistan in 2016 clarified that Pakistan's low yield nuclear weapons have become successful in deterring Indian limited war intentions. Indian claims of surgical strikes also confirmed the above-mentioned attestation that India has put limited war options off the table. Furthermore, it also became visible from Indian claims of surgical strikes that Indians were thinking of other options in dealing with Pakistan other than limited conventional war as earlier planned by them under its Cold Start doctrine. The third crisis occurred between the two nuclear-weapon states in 2019 when the Indian Air Force violated Pakistan's airspace and was responded to by the Pakistan Air Force on the next day. Although Indians lost one aircraft in the dog fight between the Air Force of the two countries, it did not opt for the option of limited war because of the presence of low yield nuclear weapons on Pakistan's side. Pakistan seemed safe with its low yield nuclear weapons against the Indian threat of limited conventional war.

References

- Ahmed, A. (2008). The Need for Clarity in India's Nuclear Doctrine. IDSA. November 11. http://www.idsa.in/idsastrategiccomments/TheNeedForClarityInIndiaSNuclearDoctrine_AAhme d 111108
- Ahmed, A. (2014). India's Doctrine Puzzle: Limiting War in South Asia. *Routledge*.
- Biswas. A. (2015). India's reluctance on tactical nuclear weapons. South Asian Voices. https://southasianvoices.org/indias-reluctance-on-tactical-nuclear-weapons/
- Chari, P. R. (2014). India's Nuclear Doctrine: Stirrings of Change. Carnegie Endowment for International Peace, *Washington, DC.* http://carnegieendowment.org/2014/06/04/india-s-nuclear-doctrine-stirrings-of-change-pub-55789
- Ganguly, S. (2008). Nuclear Stability in South Asia. International Security 33 (2): 45-70.
- Ganguly, S. (2013). Diverging Nuclear Pathways in South Asia. The Nonproliferation Review 20 (2): 381-387.
- Ghoshal, D. (2015). The case against tactical nuclear weapons in India. *Delhi Policy Group*. http://www.delhipolicygroup.org
- Gupta, A. (2014). India, Pakistan and tactical nuclear weapons: Irrelevance for South Asia. *IPCS*. http://www.ipcs.org/article/india/ipcs-debate-india-pakistan-and-tactical-nuclear-weaponsirrelevance-for-4239.html
- Joshi, M. (2014). Updating India's Nuclear Posture. Observer Research Foundation. New Delhi. http://www.orfonline.org/research/updating-indias-nuclear-posture/
- Joshi, M. (2016). Would the situation been different if India and Pakistan were not nuclear? September, 26. https://www.orfonline.org/research/would-the-situation-been-different/
- Ladwig III, W.C. (2007). A cold Start for hot wars? The Indian army's new limited war doctrine. *International Security* 32 (3), pp. 158-190.
- Ladwig, C. W. (2007/8). A Cold Start for Hot Wars? The Indian New Limited War Doctrine. *International Security* 32 (3): 158-190.
- Ladwig, W.C. (2015). Indian Military Modernization and Conventional Deterrence in South Asia. *Journal of Strategic Studies* 38 (5): 729-772.
- Narang, V. (2009/2010). Posturing for Peace? Pakistan's Nuclear Posture and South Asian Stability. International Security 34 (3): 38-78.
- Narang, V. (2010). Posturing for Peace? The Sources and Consequences of Regional Power Nuclear Postures. Ph.D. Thesis, *Harvard University*.
- O'Donnell, F. (2017). "Reconsidering Minimum Deterrence in South Asia: Indian Responses to Pakistan's Tactical Nuclear Weapons." *Contemporary Security Policy* 38 (1): 78-101.
- Rajagopalan, R., Mishra, A. (2014). Nuclear South Asia: Keywords and concepts New Delhi: Routledge.
- Rajaraman, R. (2014). Minimum Deterrent and Large Arsenal. Hindu. July 2. http://www.thehindu.com/opinion/op-ed/minimum-deterrent-and-largearsenal/article6167350.ece
- Safi, M. (2016). Seventeen Indian soldiers and four militants killed in Kashmir attack. *Guardian*. September 18. https://www.theguardian.com/world/2016/sep/18/nine-indian-soldiers-and-four-militants-killed-in-kashmir-attack
- Saran, S. (2013). Is India's nuclear deterrent credible? India Habitat Centre, *New Delhi*. http://www.armscontrolwonk.com/files/2013/05/Final-Is-Indias-Nuclear-Deterrent-Crediblerev1-2-1-3.pdf
- Sawhney, P. (2014). Areas the DRDO should work on. Pioneer. http://www.dailypioneer.com/columnists/oped/areas-the-drdo-should-work-on.html
- Sethi, M. (2014). Responding to Pakistan's Tactical Nuclear Weapons: A Strategy for India. *Institute of Peace* and Conflict Studies (IPCS). http://www.ipcs.org/article/nuclear/responding-to-pakistans-tactical-

nuclear-weapons-a-strategy-for-india-4263.html

- Sethi, M. (2016). Pakistan's nuclear posturing and India's nuclear doctrine. Scholar Warrior. http://www.claws.in/images/journals doc/717038032 ManpreetSethi.pdf
- Sultan, A. (2012). Pakistan's emerging nuclear posture: Impact of drivers and technology on nuclear doctrine. *Strategic Studies 31-32* (4-1): 147-167

APPENDIX:

No.	Name	Organization/Status	Type of Interview	Date	Place
1	Amb (R)Syed Tariq	Special Assistant to Pakistan's PM on	Face to	30/10/201	Islamabad,
·	Fatimi	Foreign Affairs	Face	5	Pakistan
2	Athar Abbas	Major General (R) Pakistan Army	Face to Face	2/11/15	Islamabad, Pakistan
	Asad Durrani		Face to		Islamabad.
3		Lieutenant General (R) Pakistan Army	Face	3/11/2015	Pakistan
4	Dr Nazeer Hussain	Associate Professor, Quaid I Azam	Face to	3/11/2015	Islamabad
т		University, Islamabad	Face		Pakistan
5	Dr Maria Sultan	President, South Asian Strategic Stability	Face to	5/11/2015	Islamabad
0		Institute (SASSI)	Face	0, 11, 2010	Pakistan
6	Dr Zafar Khan	Assistant Professor, National Defense	Face to	6/11/2015	Islamabad
		University, Islamabad	Face Face to		Pakistan
7	Prof. Dr Zulifkar	Professor, National Defense University, Islamabad	Face to Face	6/11/2015	Islamabad Pakistan
	Dr Pervez	Professor (R), Quaid I Azam University	Face to		Islamabad
8	Hoodboy	Islamabad	Face	6/11/2015	Pakistan
	Prof. Dr Nasrullah	Professor, Quaid i Azam University	Face to		Islamabad
9	Mirza	Islamabad	Face	9/11/2015	Pakistan
			Face to	/ /20	Islamabad
10	Akram Zaki	Ambassador (R)	Face	5	Pakistan
	Dr Rizwana Abbasi	Assistant Professor, National Defense	Face to	2/ /20	Islamabad
11		University, Islamabad	Face	5	Pakistan
12	Prof (R) Dr Zafar	President, Strategic Vision Institute,	Face to	3/ /20	Islamabad
12	Iqbal Cheema	Islamabad	Face	5	Pakistan
13	Dr Pervez Iqbal	Professor and Dean, National Defense	Face to	3/ /20	Islamabad
	Cheema	University, Islamabad	Face	5	Pakistan
14	Dr. Zafar Nawaz	Associate Professor, Quaid i Azam	Face to	3/ /20	Islamabad
14	Jaspal, Director, School of IR, QAU	University, Islamabad	Face	5	Pakistan
			Face to	4/ /20	Islamabad
15	Zamir Akram	Ambassador (R)	Face	5	Pakistan
	Khalid Ahmed Kidwai	Lieutenant General (R), Pakistan Army	Face to	19/11/201	Islamabad
16			Face	5	Pakistan
17	Dr Onkar Marwah	Distinguished Fellow, Institute of Peace and Conflict Studies, New Delhi, India	Email	25/01/201	India
17			Interview	6	
18	Dr Joseph Nye	Professor, Harvard University	Email	30/01/201	The United
10			Interview	6	States
19	Pushan Das	Research Assistant, Observer Research Foundation, New Delhi, India	Email Interview	9/02/2016	India

List of Expert Informants Interviewed at Pakistan, India and the United States