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Editor's Note

India's relentless efforts in enhancing its military capabilities continue to wreak havoc on the strategic balance of the South Asian region. As one of the world's fastest growing economies, India's focus seems to have been ever-increasingly skewed towards enhancing its ability to project power, which despite spending billions, it had failed to do so in its purported surgical strikes across the LOC back in February.

Nevertheless, its focus on upgrading its Missile Defense capabilities and its ballistic and cruise missile strike capabilities all represent serious developments that merit a closer look with respect to their potential impact on regional stability. Similarly, India's rapid advances in the indigenous development of its anti-satellite capabilities as well as its unmanned and drone warfare capabilities also represent a broadening of the existing spectrum of threats for its strategic rivals. While these developments are being touted by India as one of the most cogent manifestations of its progress towards becoming a 21st century super-power, they ironically represent a strategy that is still rooted in confrontation and the pursuit of regional hegemony. All in a world that is set to be defined more by shared cooperation as opposed to strife and division.

A major determinant and inspiration of India's position can also be gleaned from the recent developments in the US, where the release of a comprehensive nuclear doctrine after nearly 14 years of silence on the issue has raised marked questions as to what it aims to signal to the rest of the world. Coupled with the US's unwavering support of India's bid for NSG membership, the impact these super-power politics are likely to have on the issue of the legitimacy and power projection capabilities of nuclear weapons states is immensely significant.

It is hoped that this issue will help readers in staying up to date with the current political environment and that they will find the analyses useful. The SVI Foresight team invites and highly encourages contributions from the security and strategic community in the form of opinion based short commentaries on contemporary political, security and strategic issues. Any suggestions for further improvements are welcome at our <u>contact address</u>. Previous issues of the SVI Foresight can be accessed <u>here</u>, and can also be found on our <u>Facebook page</u>. For more information, please visit our website at <u>www.thesvi.org</u>.

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India's Balanced Missile Defence Cooperation with the US and Russia

Haris Bilal Malik

Over the last few years, India has embarked on an extensive and all-encompassing military modernization program that has carried serious repercussions for both its diplomatic and strategic ties. It has done this by expanding both its indigenously developed weaponry, and by signing various short and long-term hi-tech defence deals with the U.S., Russia and Israel to modernize its armed forces. In this, it has been able to balance its strategic relationship with the U.S. and Russia while acquiring advanced military hardware from both powers. Based on this, India's military modernization plans have led to important long-term implications for the regional security and stability of South Asia.

In modernizing its military, India's major focus has been to enhance its air defence capabilities by acquiring advanced missile defence systems. At the present, India possesses a broad range of air defence systems which include various indigenously developed ballistic missile defence systems, as well as the Barak-8 missile defence system which it jointly developed with Israel. With a view to expanding its future capabilities it has also signed an agreement with Russia for the purchase of the S-400 anti-missile system last year, delivery of which is expected by 2020. In a recent development, India is also in the process of acquiring the 'National Advanced Surface to Air Missile System-II (NASAMS-II) from the U.S. These, once acquired, would theoretically provide India with an extensive multi-layered missile shield by combining some of the world's most advanced Missile Defence Systems available today. India would be able to comprehensively address a diverse array of threats ranging from ballistic missiles, cruise missiles, fighter jets and unmanned aerial vehicles.

India's eagerness to purchase the S-400 from Russia is widely perceived by the U.S. as a destabilizing factor for enhanced Indo-U.S. strategic cooperation. In this regard the U.S. has proposed that India purchase its Terminal High Altitude Areas Defence (THAAD) and Patriot Advanced Capability (PAC-3) missile defence systems instead, to further enhance their strategic ties. India, being a rational state and pursuing its national interest, is unlikely to do this at the cost of losing Russia as a major strategic partner. India's acquisition of both the S-400 from Russia and the NASAMS-II system from the U.S. is thus evidence of it opting to choose the middle path by balancing its collaboration in missile defence between both of its strategic partners.

Coming back to the missiles themselves, both advanced systems (S-400 and NASAMS-II) hold immense significance for India's air defence postures when compared with each other in terms of their overall capabilities. The NASAMS-II missile system's <u>batteries</u> are equipped with a combination of various surface-to-air missiles, gun systems and advanced medium- range air-to-air missiles. At the technical level, the system is equipped with 3D surveillance radars, fire distribution centers, and command-and-control units. The Russian <u>S-400</u> anti-missile system comprises of 8 launchers and up to 112 missiles. It

can engage 80 targets at a time including cruise and ballistic missiles, UAVs, jet fighters, and support aircrafts at a longer range of up to 400 kilometers, which no other current missile system in the world is capable of.

India is investing heavily in its multi-dimensional missile defence programs, building a sophisticated air defence shield with a capability of possibly fighting a two-front war against Pakistan and China. In this context it is assumed that India would likely utilize the S-400 as a major air defence shield against China whereas the NASAMS-II would be inclined more towards protecting India against any strike from Pakistan.

India intends to project itself as a technologically advanced country that is capable enough to establish 'strategic deterrence' based on the deployment of such advanced missile defence systems. This posture, however, becomes increasingly complex because of the short flight times and the 3,133 km long border (including the LOC) it shares with Pakistan, along with other geographical constraints which make accurately developing these systems a considerable challenge. Such challenges, for instance, were evident in the recent aerial dogfight between both countries following the Pulwama incident in which India's air defense systems failed to deter Pakistan from striking back. This system had also led to costly casualties when an MI-17 helicopter was mistakenly hit in a friendly fire incident, possibly by an Israeli origin missile. In this regard the acquisition of and integration of the more advanced NASAMS-II system is likely aimed at surpassing such challenges and substantially upgrading India's existing air defence systems in case of any such engagements in the future.

In its pursuit of finding ground for a limited war against Pakistan, if India goes for a 'comprehensive counter-force' or 'surgical-strike' under the notion of the Cold Start doctrine (CSD), these missile defence systems could act as the most decisive factor in a future conflict. Consequently, India would be in a much better position as compared to today, if it were able to neutralize Pakistan's massive retaliation based on 'full spectrum deterrence' (FSD) by utilizing tactical missiles capable of delivering nuclear warheads.

Pakistan has maintained credible nuclear deterrence against India to assure its security and preserve its sovereignty. India intends to neutralize Pakistan's deterrence by opting for advanced missile defence systems which would likely put the regional security environment at much greater risk. Pakistan, though, wants peace and stability in the South Asian region but has a threat perception inclined more towards its Eastern border. India's increasing missile defence capabilities, based on its evolving strategic ties with both the U.S. and Russia, would likely disturb the deterrence stability of South Asia even further. Based on these developments Pakistan needs to revisit both its strategic, as well as diplomatic outlook, specifically taking into account India's ambitions of building one of the world's most robust and integrated missile defence shields to date.

https://strafasia.com/indias-balanced-missile-defence-cooperation-with-the-us-and-russia/

The BrahMos Test and Its Implications for Pak-India Strategic Relations

Musawar Sandhu

The BrahMos which derives its nomenclature from the two rivers, the Brahmaputra in India and Moskva in Russia is claimed to be the world's fastest cruise missile according to the Indian defence ministry's latest press release. This Supersonic Cruise Missile is the culmination of a joint venture that was laid out in 1998 between Russia and India.

On May 22, 2019 a day before the Indian general election results, India successfully test fired an air-launched ramjet-powered version of the BrahMos Cruise missile from a Sukhoi Su-30 MKI fighter jet. Boasting a range of 185 miles (300 kilometres) and the top speed of 2140 miles (3,450 kilometres) per hour, this missile is also claimed to be equipped with stealth technology rendering it undetectable by radar. The Indian defence ministry further maintained that the launch of the missile was quite smooth, and it followed the desired path before hitting the target at pinpoint accuracy.

The BrahMos has already been successfully tested from submarine, naval ship and land-based platforms. With the air launch of the BrahMos, India has purportedly acquired its long-sought strike capability from large standoff distances onto land and sea-based targets. Since 2016, India as a member of the Missile Control Technology Regime (MCTR) also intends to sell this weapon system on the International market with a special focus on South African and Southeast Asian states. The BrahMos has been highlighted as a product of the numerous technological advances made by its arms industries as part of its effort at greater indigenization. This move thus serves as one of the key steps taken towards India's ambition of becoming a net exporter of arms, as opposed to one of the world's largest importers as it is today.

This addition to India's existing Missiles capability has considerable ramifications for Pakistan. For example, India intends to induct two squadrons of the Su-30 MKI fighter aircraft modified to be equipped with the BrahMos cruise missile. This would considerably enhance India's standoff and first strike capabilities against Pakistan altering the strategic balance. India has always endeavoured to create space for limited war with Pakistan remaining well within the threshold of nuclear deterrence. With the inclusion of the BrahMos in the modified Su-30 aircraft, the strategic balance between Pakistan and India is likely to have grave implications for existing peace and stability in the South Asian region.

Within the post-Pulwama scenario where two Indian aircraft were shot down by Pakistan's air force, there emerged certain gaps in India's air warfare capabilities. This test can be thus seen as an attempt to address these gaps while adding to its overall capabilities. Being the world's fastest cruise missile, it also acts as an anti-ship weapon with piercing capability that would pose a serious threat to Pakistan's land and naval assets as well.

Pakistan in response successfully test fired its all-weather, nuclear payload-capable ballistic missile Shaheen –II a day after the Indian test. This was carried out as training launch aimed at ensuring the

operational readiness of Pakistan's strategic forces' capabilities. This test however may not be termed as a direct response because both systems have been designed differently keeping in mind their specific objectives. As per the official statement of Inter-Services Public Relations (ISPR), Shaheen –II fully meets Pakistan's strategic objective of maintaining its desired level of deterrence stability in the region. As a result, this test was aimed at projecting that any misadventure by India in the form of preemptive or counterforce strike would be dealt with an all-out attack on counter value targets instead.

It thus follows that India with its relatively larger economy and ambitions to dominate the region are currently provoking Pakistan into a costly arms race which it cannot afford at the moment. India on the other hand can afford the costly defensive capability of a multitier Ballistic Missile Defence System (BMDS) spread across its territories. In this regard, there is a consensus among Pakistan's various diplomats, scholars and military planners that it should avoid indulging in an arms race with India, and instead should focus on enhancing the quality of its penetrative strike capability including second strike vis-à-vis India.

Hence, coming back to the implications of the latest test of the BrahMos, the missile race in South Asia has become immensely complex and multilayered with the introduction of supersonic and stealth capabilities. Both Pakistan and India have to show some restraint for lasting peace and stability is to be maintained within the region. Since both countries share a 3323 Km border (including Line of Control (LoC) in Jammu & Kashmir sector) with each other, any minute miscalculation in terms of detection, and reaction and short flight times of the missiles may prove catastrophic for the entire region. In this regard, it is thus imperative that there exist sensible leadership on both sides that priorities restraint especially considering the fact that their actions directly affect the lives of almost one-fourth of the world's population.

http://southasiajournal.net/the-brahmos-test-and-its-implications-for-the-current-state-of-strategic-relations-between-pakistan-and-india/

India's Unmanned Aerial Capabilities

Syeda Saiqa Bukhari

Advanced military technological innovations have made it possible for forces to inflict fire and fury with bullets and firepower without even being physically involved. Unmanned Aerial Vehicles (UAVs) or drones are one such development that allows nation-states to achieve their strategic goals in such a manner. Within the contemporary world order, war fighting and intelligence gathering techniques have changed considerably. Now, many states are using unmanned aerial vehicles for surveillance, reconnaissance, intelligence, and training of anti-aircraft crews for target acquisition and destruction.

The use of UAV's emerged in South Asia when they were deployed by the US in its global war against terrorism. India has since also taken the initiative to indigenously develop its own UAV's, such as the Netra and Rustom I and II drones for surveillance, reconnaissance and for target destruction purposes. More recently India tested its Abhyas drone as a target for its anti-air weapons tests. The Abhyas is a High-speed Expendable Aerial Target (HEAT) which can be used for simulating different types of airplane and missile systems. It can also function as a jammer platform which means that it can confuse the enemy's integrated air defence systems. These developments are likely to greatly enhance the Indian armed forces' war fighting capabilities in the years to come.

Attack drones such as the Abhyas are intended to enhance airplane design and to test aircraft performance (maneuverability, cruise and maximum speed) and train its operators by creating realistic threat scenarios. This recent test shows India's intention to further develop such weapons and to operationalize its aerial defence systems by simulating real war settings. As evident from the Pulwama episode, most of the technologies employed by the Indian Armed Forces were not efficiently used. Learning from these failings, India can thus be seen not only focusing on the development of advanced weapons capabilities but also on their effective usage in war-like situations. For instance, India's drone capabilities could help facilitate the launch of a limited war under its Cold Start Doctrine, as sufficient Intelligence, reconnaissance and surveillance serves as a vital pre-requisite for its implementation.

Most recently, this kind of unmanned technology was once again in the news in the United States' ongoing crisis with Iran. Relations between Iran and the United States have quickly gone downhill since the US withdrew from the JCPOA in May 2018, with last month's decision by the Trump administration to deploy 1,000 soldiers and extra military resources in Middle East further fueling tensions. In the absence of an official diplomatic channel between the two states, the chances of full-scale conflict are becoming a dangerous possibility.

Under this intensified situation, the US had deployed its 'Global Hawk' UAV to scout enemy targets to develop its strategy accordingly. It presented a feasible option for the US to gain information without risking the lives of actual troops as such aerial surveillance drones while being intrusive are unlikely to spark a full-scale war the way an intrusion by a manned fighter aircraft would. In this case too this was not to be as the US refrained from retaliating even when the pilotless drone was shot down by Iran. The

situation in contrast would have been quite different if Iran had shot down a fighter aircraft while even possibly killing or even capturing an American pilot instead.

Coming back to the South Asian region, this same aspect when related with India's recent drone tests would ultimately allow India to undertake similar aerial intrusions against its adversaries without risking actual soldiers' lives. These include the lives of officers such as Wing Commander Abhinandan who had been recently captured by the Pakistan military in the post Pulwama aerial engagements between both countries. Such developments would thus allow the Indian military to act faster and conduct more adventurous strikes while reducing the political fallout that may arise from risking the lives of personnel who may otherwise be killed or captured. The unmanned technology also facilitates the Indian temptation to achieve their strategic objectives more efficiently.

In all, such technological advancements have brought about a major shift in warfare considering the increasingly prominent roles being played by such drones. Unmanned technology while currently deployed by a whole host of countries represents perhaps a turning point in the way military operations are conducted, where drones have increasingly come to serve as a best defense alternative for states to achieve their strategic ambitions without risking human lives.

http://foreignpolicynews.org/2019/06/26/indias-unmanned-aerial-capabilities/

Effectiveness of Nuclear Deterrence of India and Pakistan in Pulwama incident

Dr. Anjum Sarfraz

The recent 'Pulwama crisis was triggered by a suicide attack by Adil Ahmed Dar, a 19-year-old young Kashmiri from Indian Occupied Kashmir (IoK). He was highly distraught from the brutalities committed on him and on other Kashmiris of IoK by the Indian security forces. On 14 Feb 2019, a convoy of vehicles transporting Indian security forces from Jammu to Srinagar was attacked by a suicide bomber driving a vehicle rigged with explosives, killing at least 40 Central Reserve Police Force (CRPF) personnel. Jaish-e-Mohammad (JeM) claimed responsibility. It is generally believed that it is impossible to bring such a massive number of explosives by infiltrating the borders. India alleged that the Intelligence agencies of Pakistan had control over the perpetrators of the attack, but Pakistan had strongly denied these accusations, reiterating that JeM is banned in Pakistan. Moreover, Pakistan is itself sufferer of terrorism, how can it support this heinous crime elsewhere.

The United States and other Western countries offered support to India by condemning the Pulwama attack and asking Pakistan to deny safe havens to terrorists. However, the US president called on both sides to exercise restraint. In the opinion of this author there is not enough evidence to interpret that the US was in favor of military action by India. Moreover, Indian elections were scheduled from 11 April to 19 May 2019; therefore, it was not in the favor of India to go for a major conflict. There were no other indicators that India has started deploying its military might on our eastern borders and activated important forward air bases and moved her naval units from her Eastern and Southern fleets to its Western fleet. India in 2001 subsequent to terrorist attack on the Indian parliament on 13 December, in which 14 people were killed including terrorists, deployed her armed forces on war footing on our borders. In response Pakistan did the same. The armed forces of both countries remained deployed ready for war for about one year (2001-2) but hostilities did not break out mainly because of possession of weapons of mass destruction by both states.

In another incident, on 18 September 2016, a terrorist attack at an Indian army camp near Uri by militants left 19 Indian soldiers dead. Government of Narendra Modi promised retaliation at a time and place of its choosing. On 29 September, the Indian government announced that it had undertaken 'surgical strikes' across the Line of Control (LoC) and destroyed a number of terrorist launch pads and killed a number of militants who were present and intending to infiltrate into India. Details about casualties and targets remained sketchy. Pakistan strongly denied that any 'surgical strike' had taken place. It is considered that the Indian government had shifted from a policy of 'strategic restraint' which it exercised after the 26 November 2008 terrorist attack in Mumbai to militarily response in the form of surgical strikes in 2016.

After 14 Feb19 Pulwama incident, tensions between the two countries started intensifying. India used this opportunity to malign Pakistan as a supporter of terrorist activities which was vehemently denied by Pakistan at every forum. This occurrence provided an opportunity to the BJP government to prove, its

'nationalist' credentials at the political level to please Hindu community and denounce Pakistan as a supporter of terrorist outfits. Politically, there was extraordinary support among India's influential strategic community for exercising a military option that could test deterrence stability and escalation dominance between the two nuclear weapons states.

The Indian Air Force carried out an air strike at Balakot (Khyber Pakhtunkhawa) inside Pakistan territory on 26 Feb under the garb of destroying a terrorist camp. However, there was no physical damage to any building or any human casualty. Beyond Visual Range precision weapons were used. The intruder managed to escape unhurt. This was the first air strike by the Indian Air Force across the international borders of Pakistan after 1971 war. Pakistan decided to respond at the time and place of its choosing. The next morning (27 Feb 19), Pakistan's Ministry of Foreign Affairs announced that the Pakistan Air Force has conducted six airstrikes at non-military targets in lok. The aircraft were able to lock on to the targets with great accuracy, but they were ordered to drop their bombs in an open field in order to avoid any human loss and collateral damages. Two Indian aircraft were also shot down in the dog fight. One pilot fell in the territory of Azad Jammu and Kashmir who was apprehended and later handed over to India after two days. This gesture of Pakistan of handing over of pilot was widely appreciated by the world and acted as a source of de-escalation of tensions.

In another incident Pakistan Navy (PN) surveillance aircraft detected an Indian Kalvari class French built submarine in the international waters about 98 nautical miles south of Gwadar on 5 March. The Pakistan Navy exercised restraint as per policy of the government and tracked her till she left the area. It was a conventional submarine equipped with medium range cruise missiles (750 Km) which can be used against ships and land targets. With this background it is evident that both nuclear powers avoided any major military action.

Some intellectuals view these episodes as a punch in nuclear deterrence which occurred on 26 Feb and was plugged the next day by Pakistan. Critical analyses reveal that nuclear deterrence prevailed because tensions did not escalate to any meaningful and major military action. The Indian action of 26 Feb may be termed as the "New Normal" which was first conceived and then employed by the US and Israel in their foreign policy or geopolitics, especially after 9/11. Under the garb of fighting terrorism, Americans and Israelis justified the breach of sovereignty of other states, such as Iraq, Lebanon, Palestine and Syria. Using their superior military and technological power, Washington and Tel Aviv turned the abnormal act of breaching the sovereignty of these states into their New Normal.

However Indian New Normal has not been successful because of swift, timely, accurate and befitting response given by Pakistan the next day. The Response of the Pakistan Air force on 27 Feb and the detection of the Indian submarine on 5 March by the Pakistan Navy has abundantly highlighted the importance of modern conventional war machines equipped with state of the art weapons, equipment and professional training. The principal outcome of this event is that Pakistan needs to emphasize on quality rather the quantity of its conventional weapons and equipment. Keeping in view of the prevalent unhealthy economic conditions of the country, an arms race with India must be avoided. It is pertinent to mention that at the time of the Cuban missile crisis of 1962, the former USSR had 300 nuclear

warheads as compared to the USA which had 3000. Even then because of the huge destruction envisaged, the war between the two nuclear states did not break out.

https://moderndiplomacy.eu/2019/06/18/effectiveness-of-nuclear-deterrence-of-india-and-pakistan-in-pulwama-incident/

Denying India Space for Limited War Under the Nuclear Threshold

Musawar Sandhu

War that is limited in terms of territory, the end objectives pursued, choice of weaponry adopted and where the use of weapons of mass destruction is avoided is widely regarded as a limited war. Since the nuclearization of South Asia in 1998 however, the region's security dynamics have changed with the threat of a conventional war increasingly moving towards a nuclear one.

It is widely argued that the presence of a nuclear deterrent between Pakistan and India has so far prevented a full-scale conflict. However, with India evolving its military doctrines to create ground for a more limited conventional war under the nuclear threshold, the prevailing status quo remains highly at risk. This notion has since paved the way for the Cold-Start doctrine of 2004, Joint Doctrine of the Indian Armed Forces of 2017 and Land Warfare Doctrine of 2018. All these military doctrines indicate a shift from a defensive to an offensive pre-emptive military posture specifically vis-à-vis Pakistan.

To enhance its pre-emptive and offensive military capabilities, India plans to train smaller, agile and more integrated battle groups with synchronized support from its Infantry, artillery and air force divisions. Its military planners are of the view that they would carry out quick punitive strikes inside Pakistan by using these newly developed limited battle-oriented divisions while keeping the conflict below the threshold of a potential nuclear exchange between both the countries. The formations of these integrated battle groups are a direct reflection of its limited war strategy that would strategically enhance India's response time vis-à-vis Pakistan.

Over the last few years, Pakistan has also revisited its nuclear doctrine by moving from minimum credible deterrence towards full spectrum deterrence in order to respond to these developments. These include taking measures to develop its own tactical nuclear capable missile systems focusing on accuracy, enhanced mobility and quick response times. The operationalization of this missile system has purportedly served as a viable deterrent to India's ability to wage a limited war by significantly reducing the nuclear threshold.

It has been widely claimed that the addition of tactical nuclear weapons system such as the Nasr system has considerably limited the efficacy of India's cold start doctrine. This has arguably compelled India to adopt its much-touted concept of 'Surgical Strikes' as a new strategy to keep the space for limited war with Pakistan open.

India's surgical strikes narrative can be argued as being somewhat inspired by the US Special Forces' 2011 Operation Neptune Spear which had led to the killing of Osama Bin Laden. The operation which has since been characterized as one of the most technologically advanced and sophisticated operations to have been carried out inside Pakistani territory has since left a lasting legacy on Pakistan's relations

with the US. Since this operation was conducted India has repeatedly claimed that it also has the capacity and capability to carry out similar strikes deep inside Pakistani territory. This for instance was evident when India claimed its first ever surgical strike against Pakistan in response to the 2016 Uri attack. This narrative has since found widespread domestic support within India.

On the other hand, Pakistan has repeatedly rejected these claims on the pretext that any form of a surgical or conventional strike on Pakistani territory would be considered as a red line which in itself represents its nuclear threshold. It was this aspect that was put to test following the Pulwama incident when, India once again violated the sovereignty of Pakistan by conducting air-strikes at Balakot which is almost 4 to 5 kms from its eastern border with India. Dubbed by its media as surgical strike 2.0, these strikes were aimed at portraying India's capacity and will power to carry out a conventional strike against Pakistan below the nuclear threshold. Pakistan regarded this as an act of aggression and a blatant violation of its territorial integrity. It however chose to respond via conventional means claiming that it would control the escalation ladder throughout the conflict. Whereas, tensions were diffused after the first ever aerial engagement between two nuclear weapon's states, such kinds of misadventures have the potential to turn a limited conventional conflict to a full-scale nuclear war that could prove lethal for the entire region.

At the present, it appears that India, under the cloak of its offensive pre-emptive doctrinal strategies intends to upgrade, modernize and enhance the capacity of its armed forces by increasing its military budget. In terms of modernization, India has signed a \$5.43-billion deal with Russia for the S-400 air defence system. There are also reports suggesting that the US is prepared to offer India its fifthgeneration F-35 aircraft if India were to scraps its S-400 deal with Russia. The acquisition of either of these state-of-the-art weapon systems would not only add to the Indian air force's penetrative and strike capabilities as part of its narrative of surgical strikes but also pose a direct threat to strategic stability in South Asia

If India decides to start a limited war once again under the nuclear threshold there is a higher chance that it would have to face disastrous and lasting consequences as opposed to its more immediate objective of projecting power. Hence, because of its growing fascination with the surgical strikes narrative India runs the risk of potentially turning a limited war into an all-out conflict further risking escalation to nuclear strikes.

Based on these dynamics it is imperative that strategic planners on both sides exercise restraint especially considering how such pre-emptive/ cold start and surgical strikes strategies are undermining peace and stability across the wider region.

https://www.eurasiareview.com/25062019-denying-india-space-for-limited-war-under-the-nuclear-threshold-oped/

India's Space Program and Deterrence Stability of South Asia

Syeda Saiqa Bukhari

Outer space has become a key component of military power projection for the world's major powers. The weaponization of outer space is also a global tragedy as it has always remained a neutral and 'shared heritage' for all of mankind. Only a few countries which include the US, Russia, China and India have been able to develop their space programs. Space resources facilitate military operations and also provide assistance in making crucial battlefield decisions. As a result, the increasing dependence of armed forces on outer space assets for communication and operational tasks make them increasingly valuable. In this regard, the world's great powers are attempting to militarize and command this sphere to pursue their strategic goals.

Military presence in outer space is one of the components of India's long-term hegemonic designs. In pursuit of its regional and global dominance, India is involved in several advanced missile development programs. India though claims to utilize space for peaceful purposes but ended up in space weaponization. This shift also changes India's policy from simply having a presence in space to projecting power there. Colin Gray a renewed strategist described space power as 'a state's ability to use space while denying its reliable use to any foe'. In India's case, it has the capability to use space but not have enough counter space capability.

India first Anti-Satellite (ASAT) missile test on March 2019 is a considerable sign that India is on the verge of developing counter space capability. After its successful ASAT test, India has become one of the few countries after the US, Russia and China to have the capability to destroy objects in space. ASAT weapons are specifically designed to destroy the adversary's space assets, blinding them or disrupting communication networks, thereby providing India a major military advantage. The successful test of ASAT has thus made India more confident in its space program's capabilities.

In a recent development, India is going to conduct its first simulated space warfare exercise in July 2019. These exercises termed as 'IndSpaceEx' are designed to gain a better appreciation of the existing and emerging challenges in the space security sphere by creating a real time war scenario.

These exercises would be conducted to assess India's major space vulnerabilities, requisite space and counter space capabilities and highlight the gaps within these capabilities during conflict. The conclusion of these war games would assist policy makers to develop space policies accordingly. These exercises will also help India in grasping its related strategic challenges and to take appropriate measures for effective deterrence in space.

Space modernization carried out by India shows that the country is steadily expanding its focus on missile development from the conventional and nuclear realms towards the space domain. It is also worth noting that these developments were also focused on gaining certain political objectives. It has been argued that India's anti-satellite test was only to hype the Indian public's emotions for political gains in the recently held general elections. But India's plans to conduct war-games demonstrate that

India is on route to practically test its counter space capabilities to minimize the threats posed especially by China's growing space program.

India's quest for space weaponization touches a number of key issues which endanger the regional and international security environment. At the regional level, South Asia is marred by mutual hostility between India and Pakistan. These ongoing Indian space developments threaten to adversely affect the strategic stability in the region, which ultimately could lead to an inevitable arms race between both states in the domain of space. Pakistan should take these developments seriously as it forms a key of part of India's future military plans and take measures accordingly.

At the global level, this creates a debate on outer space policy, politics, and the weaponization of space. The international community has also expressed its concerns regarding the resulting space debris from India's ASAT test, which would likely have a drastic effect on the existing operational satellites.

In all, space has become a new theatre for major military powers in pursuit of their military doctrines. Major Powers are in competition for securing space assets and to effectively utilize them for future warfare. These advanced space technologies could play a decisive role in modern warfare. India's desire of presence in space and the acquisition of advanced intelligence, surveillance and reconnaissance (ISR) systems which are meant to facilitate military strategies for conducting offensive military operations at the present pose serious concerns for Pakistan as well.

https://moderndiplomacy.eu/2019/06/30/indias-space-program-and-deterrence-stability-of-south-asia/

The Hypocrisy Inherent in India's Proposed Membership to the NSG

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The ideological foundations of the Nuclear Suppliers Group (NSG) are based on non-proliferation of nuclear materials and the prevention of nuclear weapons buildup. Unfortunately, the group has instead become more of a cartel comprising of the major powers that is aimed at benefiting their own economies through nuclear trade. India's likely inclusion into the NSG (in the coming years) while being supported by the West and other member states would ultimately justify this critique as this would greatly benefit their economies at the expense of their commitment to non-proliferation. This raises questions on the credibility of the entire mechanism of the NSG in terms of its non-proliferation agenda and the practices it has adopted for granting membership to non-NPT states.

The creation of the NSG was aimed at controlling the export of nuclear materials and technologies which could be used to make a 'nuclear bomb'. As a politically binding group, the NSG currently has 48 participating governments. These include US, Russia, Canada, France, Australia, and Kazakhstan all of which are major exporters of nuclear materials and technology and are also India's primary suppliers. The NSG aims to facilitate the export of nuclear materials and related technologies based on certain key principles to ensure that they are used for peaceful purposes. This in turn is carried out by the NSG via coordination between the member states such as in the imposition and regulation of export control guidelines. Both India and Pakistan are seeking NSG membership since 2016 with their prospects of being inducted remaining a major agenda of the NSG's recent plenary meetings.

It is worth noting here that entry into the NSG carries a certain set of pre-requisites which include; the capability of a country to supply the goods enumerated in the guidelines of the NSG, a demonstrated willingness to apply NSG guidelines, the existence and proper implementation of a legally binding national export control regime in line with the rules of the NSG, membership of the NPT or comparable regional treaty and a willingness to support international efforts for the non-proliferation of Weapons of Mass Destruction (WMD). Apart from these, certain elements such as employing best practices related to nuclear safety and security by an applicant also play an important role for an applicant's case to be considered.

Based on these pre-requisites, the nuclear non-proliferation treaty (NPT), serves as a core element of the NSG forming its very foundation. It allows for the peaceful use of nuclear energy by its signatories, while restricting the use of nuclear energy to non-nuclear weapons states to prevent the buildup of nuclear weapons. India and Pakistan along with Israel and North Korea are non-NPT nuclear weapon states which are either recognized or widely suspected to possess nuclear weapons. At the present however, while it is India that is being favored by the US and other Western states for the NSG membership, China stands in opposition to India's entry asserting that there is no precedent for the inclusion of non-NPT states. This has made India's entry difficult as the group is guided by the consensus principle.

This was also evident during the 29th plenary meeting held recently on 21-22 June 2019 in Nur-Sultan Kazakhstan. The primary agenda of the meeting was focused on discussing the technical, legal and political issues regarding entry of non-NPT members into the NSG. China has a clear stance that there should be specific plan adopted by the NSG in this regard. China's position vis-à-vis India thus remains that it would likely block India's entry into the NSG as the latter is not willing to sign the NPT. However, the meeting failed to reach any consensus on the membership of new states as well as the criteria to be adopted for the inclusion of non-NPT states.

India's alleged membership of the NSG would likely impact the global non-proliferation regimes which form the very basis of the NPT. In that scenario, the NSG would likely lose its credibility as the widespread criticisms leveled against it for creating a dichotomy of nuclear haves and haves-not would become even more justified. If that is the case, Pakistan though a non-NPT state also deserves membership of the NSG based on solid grounds of experience, technical expertise, capability, clear division of civilian and military programs and the commitment to nuclear safety.

For now, the NSG hasn't decided to induct new non-NPT members. As a major non-proliferation group, the NSG has been facing some critical issues. The Indo-US nuclear deal and the NSG's nuclear exemptions to India have become significant for the NSG itself in terms of the credibility of this group. In any case if India is granted membership of the NSG (which might occur in coming years), it would likely change the nature of the NSG as a non-NPT state would be getting membership, not based on any preset criteria but on the basis of its political lobbying and extracting favors from other influential members of the NSG such as the US and Russia. This would likely pave way for the NSG to move away from its own provisions undermining its own set guidelines.

The Nuclear Suppliers Group was established to manage nuclear exports and to promote non-proliferation of nuclear weapons. Membership of the NSG for India, based on by-passing these criteria would thus serve as a test case for its participating governments. It would likely raise questions on the foundation of the NSG and that whether the group was still committed to working towards nuclear non-proliferation. Or that is merely engaged in enhancing the nuclear material exports of influential countries to the sole benefit of their own economies.

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Thinking the Unthinkable -Another Redacted Version of the US Nuclear Doctrine

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Over the last two weeks, much has been written about the release of the US's latest Nuclear Warfare Doctrine that was published on the US Joint Chiefs of Staff's official website earlier this month. While the sensitivity of the topic and the timing of its release are in themselves cause for discussion, the fact that the document was <u>removed from the public domain</u> after being up for less than a week has fueled intense speculation on whether it was made public by mistake before being abruptly redacted from the JCS website.

The Document titled 'Joint Publication 3-72: Nuclear Operations' (dated 11 June 2019) had been uploaded on the publicly accessible section of the JCS's online library alongside a series of publications self-styled as outlining the fundamental principles of US military action and decision-making. It represents the first official stance on the US's use of Nuclear Weapons in over 14 years, which either ironically or perhaps deliberately has courted similar controversy over its release much in the same way the last version of this document did back in 2005.

That was when a similar manual bearing the same title had been <u>leaked by the Washington Post</u> as an unapproved revision of the US Nuclear Doctrine. A year after the leak in 2006, the Pentagon had announced that it was <u>cancelling the publication</u> of this revision and had also removed the earlier 1995 version of this document from its website. Titled Joint Publication 3-12: Joint Nuclear Operations, this earlier version had otherwise remained in the public domain for about a decade since it was first released in 1993 and subsequently revised in 1995.

In order to add a bit of context to what they cover, these documents filed under the Department of Defense's Joint Doctrine Publications Series comprise of a broad range of categories ranging from personnel, intelligence, operations, logistics, communications and planning. These categories are in turn further divided into specific topics outlining US Military Doctrines on a broad range of themes and subjects. For instance, Joint Publications Series Number 3 which deals specifically with US Military Operations, comprises of the US's officially declared stance on more specific topics such as Joint Maritime Operations, Special Operations, Cybersecurity, Counterinsurgency (COIN), Counter-terrorism and Homeland Defense among a broad range of other themes and sub-topics. It was as part of these series of documents that the US's official stance on Nuclear Operations was also published.

However, unlike the US's officially declared doctrines on the above issues related to its more conventional warfighting capabilities, the issue of Nuclear weapons has always evoked a sense of wonderment and self-reflection outside the 'strategic community'. In what is otherwise routine discourse for defense and strategic planners, policymakers and academicians, the very idea of discussing when and how to use nuclear weapons presents a chilling insight into one of the many threats and dangers humanity as a whole faces in today's world.

Consequently, what the layperson sees is the cold impersonal calculus of Nuclear War, where issues such as survivability and the quick, decisive use of nuclear weaponry are instead directly equated with the end of civilization as we know it. This refers to the same kind of dystopian thinking that has been perhaps best immortalized by Kubrik's Dr. Strangelove where even thinking of a post-nuclear or rather post-apocalyptic scenario represents nothing short of a tragic comedy. While Kubrik's more satirical take on this sort of thinking parodies it as bordering nothing short of insanity, it still represents a highly plausible reality on which the world almost always seems to be on the brink of even today.

Thus, considering how the content of this latest US Nuclear Doctrine may be one of the most candid and 'rationally' justifiable iterations of such a reality, it is no surprise why many have been left shocked by what the US has officially published as its 'way of thinking'. The doctrine's very premise that the US considers a Nuclear war as winnable, belies a strategic mindset that has moved far beyond the deterrence value that would otherwise be enshrined in the principles of Mutually Assured Destruction. What this thinking instead represents is an overt declaration of what is known as a counter-force posture, where the US is advocating for greater flexibility and the full-scale integration of its nuclear weapons across the entire gamut of its armed forces.

For instance, the doctrine directly states that "using nuclear weapons could create conditions for decisive results and the restoration of strategic stability," and the that the "employment of nuclear weapons can radically alter or accelerate the course of a campaign." Building on this rationale the doctrine also advocates that the 'integration of nuclear weapons employment with conventional and special operations forces is essential to the success of any mission or operation.' Such an overt focus on using and integrating nuclear weapons across a broad range of operations represents a willingness and level of preparedness that is arguably unprecedented in the history of nuclear strategy.

In one of the many quotes which each chapter of this document opens with, it is thus no surprise to find one of Herman Kahn's most famous quotes alluding to the possibility of nuclear weapons being used in the near future. Kahn, who was a renowned US strategist with the RAND corporation, has been credited with 'thinking the unthinkable' and contributing immensely to the development of US Nuclear Strategy during the Cold War. Ironically however, he was also one the primary real-world inspirations which Kubrick had used to create the whimsical Dr. Strangelove. Thus, while Kubrik may have depicted Dr. Strangelove as an artistic imitation of the real-life Kahn, what we have in our increasingly unnerving world today is an example of real-life imitating art instead. Something which the Pentagon might find a lot more difficult to redact as is.

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