Great Power Competition and Global Strategic Stability

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Abstract

The rise of China and the renewed Russian desire to find a greater role in global politics are not only challenging America's global preeminence in the world but are also serving as a catalyst to the great power rivalry. The consequences of this great power competition, however, do not remain confined to these three states only. The world at large is witnessing the fall-out of this competition in the form of reduced emphasis on arms control arrangements, regional realignments, quantitative and qualitative improvements in nuclear arsenals, increased significance of nuclear weapons in the national security policies and most prominently the global strategic stability. The great power competition is giving impetus to development and modernization of weapon systems that are undermining the basic pillars of strategic stability - mutual vulnerability and nuclear survivability. The increasing role of U.S. in South Asia and Indo-pacific to pursue its strategy of containing China is giving rise to regional insecurities; therefore, threatening the deterrent relationship between the regional players as well.

Keywords

Nuclear weapons, Strategic Stability, Arms Control, Ballistic Missile Defence (BMD), China, India, US, Russia, Great Power Competition, South Asia.

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Introduction

Following the World War-II and during the entire Cold War period, the foundation of global peace and stability arguably depended on the stable deterrent relationship between the United States and the Soviet Union. The management of crises, arms race, and temptations of initiating a preventive war (first strike stability) were managed under an institutionalized rubric of strategic stability. Later, for over a decade, the global order was largely unipolar. However, the current geopolitics includes China as an emerging player. The concepts and structures which ensured maintenance of global peace and stability through management of relationship between the key players of a bipolar world order, and a brief period of unipolar world, seem to be struggling to accommodate the realities of an emerging multipolar order.

Owing to the increasingly divergent views on what a stable and peaceful world might look like, there are contending interpretations of global strategic stability. Unlike strategic stability – that strictly applied to deterrent relationship between the U.S. and former USSR – there is no agreement on what constitutes global strategic stability. Various festering regional conflicts which have elicited involvement of key players like the U.S., Russia, and China, in states like Syria, Ukraine, and Yemen etc. are manifestations of these underlying differences. Likewise, development of several destabilizing military capabilities and strategies are also an outcome of such interpretations. Therefore, it is important to explore the emerging global power competition, the contending interpretations of global strategic stability, how these conflictual developments manifest in the form of various destabilizing international trends.

This paper attempts to map the indicators of an emerging global power competition and opposition to the unipolar world order which is receding. Following a discussion on these indicators, an attempt is made to comparatively analyze the construct of strategic stability and the contours of the emerging global strategic stability. Following this

discussion, the American, Russian, and Chinese perspectives on various issues affecting global strategic stability are discussed. The implications of these divergent approaches on South Asian region, the arms control arrangements, nuclear modernization, and renewed significance of nuclear weapons are discussed before conclusion.

Indicators of Great Power Competition

The post-Cold War international system, which initially saw the U.S. global preeminence, is now turning into great power competition. The U.S' decline, China's rise and Russian re-emergence are main factors of this renewed great power competition.[1] The official policy documents of the U.S., such as, 2017 National Security Strategy (NSS) and 2018 National Defence Strategy (NDS) also give an unambiguous indication of this emerging great power competition by calling Russia and China as major threats to its influence and global dominance.

The 2017 NSS states that, "China and Russia challenge American power, influence, and interests, attempting to erode American security and prosperity. China and Russia want to shape a world antithetical to U.S. values and interests. China seeks to displace the United States in the Indo-Pacific region, expand the reaches of its state-driven economic model, and reorder the region in its favor. Russia seeks to restore its great power status and establish spheres of influence near its borders."[2] Likewise, the declassified summary of the January 2018 NDS states that, "Long-term strategic competitions with China and Russia are the principal priorities for the Department, and require both increased and sustained investment, because of the magnitude of the threats they pose to U.S. security and prosperity today, and the potential for those threats to increase in the future."[3]

At the same time Russia and China are looking for a multipolar world in which they can be on an equal footing to the U.S. Both Moscow and Beijing are wary of Western-led liberal democratic order and America's global dominance. Russian President, Vladimir Putin, in his

speech at 2007 Munich Security Conference (MSC) stated that, "I consider that the unipolar model is not only unacceptable but also impossible in today's world. And this is not only because if there was individual leadership in today's – and precisely in today's – world, then the military, political and economic resources would not suffice. What is even more important is that the model itself is flawed because at its basis there is and can be no moral foundations for modern civilization."[4]

Similarly, Chinese President, Xi Jinping, while giving a press statement following talks with Russian President Vladimir Putin in 2019, said that, "The international situation is undergoing profound changes not seen in the past century. Peace and development remain the spirit of the times. However, protectionism and one-sided approaches are increasing, and the policy of force and hegemonism is intensifying. We have a long and difficult path to go before we arrive at peace and development."[5]

According to Thucydides Trap, when an existing power is threatened by a rising power, the most likely outcome is war. In the contemporary environment, this trap is more complex because of involvement of three states; China - a rising power, Russia - looking to regain its lost power status and improve its global influence, and the U.S. - trying to retain its global leadership and dominance. Events like 2008 financial crisis, Russian annexation of Crimea in 2014, operations in Ukraine and Syria and Chinese outreach to different regions of the world have undermined the U.S. leadership.[6] As a result, U.S. adopted a containment strategy towards China leading to competition between the U.S. and China, whereas, U.S. and Russia are in a confrontation mode. For Chinese containment, the U.S. is building regional counterweights like India, South Korea, Japan and Australia – an arrangement formalized in the form of Quad Group.[7] The U.S. is propping India as a net security provider in the Asia-Pacific region with the sole purpose of containing China. This approach of supporting India as a regional net security provider is evident from

different statements of U.S. officials e.g. while speaking at the Shangri-La Dialogue in 2009, the U.S. Secretary of Defense, Robert Gates, argued that "we look to India to be a partner and net provider of security in the Indian Ocean and beyond."[8] The implications of this containment strategy extend to South Asian region as well. However, the interplay of these three states (U.S., China and Russia) is making the international security environment fragile and affecting the global strategic stability, that was first introduced during the Cold War.

Strategic and Global Stability

The concept of strategic stability has been used regularly in discussions and debates about nuclear policy and strategy but there is no common understanding of it beyond the U.S. and Russia. States like China, India, and Pakistan have different understanding of the concept owing to their regional peculiarities. Greater shared understanding of the subject between the U.S. and Russia is primarily an output of institutionalized dialogue process between the two states throughout the Cold War that resulted in various arms control, confidence building, verification, and restraint measures. Beyond the two states, there is no single accepted definition of strategic stability and factors that contribute to or affect it. The core ideas that form the basis of strategic stability were first introduced in 1950s when both the U.S. and the Soviet Union began to build nuclear arsenals.[9] The concept of strategic stability then evolved with efforts to keep the two Cold War adversaries' relationship stable.[10] Therefore, strategic stability was part of an effort to find an arrangement or agreement that allowed the two hostile powers to coexist without destroying each other. Its basic concept was 'first-strike stability' which means that there is no incentive for either side to strike first because of the fear of assured retaliation in a crisis.[11] This led to the focus on increasing the survivability of nuclear forces in both the U.S. and the Soviet Union. Similar to this concept was 'crisis stability' which referred to absence of an incentive to strike first in order to gain relative advantage in

times of a crisis by increasing transparency and predictability. Crisis stability would have been threatened if either adversary felt pressurized to strike first in the hope of gaining a more favorable outcome if nuclear war became inevitable. Accompanying these concepts was arms race stability, which means that arms race can be averted if both sides do not develop the kind of weapons that give them strategic superiority over their adversary.[12] Therefore, under these core concepts, strategic stability can be defined as "minimizing incentives for one side to initiate nuclear use (first strike stability), reducing incentives for competition in the development and deployment of nuclear forces (arms race stability) and provides a degree of predictability and transparency during periods of heightened tension (crisis stability)."[13]

While the term strategic stability holds a context to itself in term of its constituents and associated factors, global strategic stability is a term increasingly used by world leaders in an abstract manner. This renewed great power competition involving three powers, which are competing in political, military, economic, information, and technology domains, cannot be pinned down on one governing factor – the way nuclear deterrence or strategic stability were central during the Cold War. The contemporary players are developing and modernizing weapons that are undermining the basic pillars on which strategic stability rests - mutual vulnerability and nuclear survivability. Adding to this fragility is the different understanding of factors affecting the global stability. All three major powers, the U.S., Russia and China seem to have different understanding of factors undermining global stability and are blaming each other for undermining it.

Major Factor Affecting Strategic Stability: Contending Interpretations

United States

The U.S. considers the return of geopolitics, in which revisionist and emerging powers are attempting to alter the status quo, like, Russia's

territorial aggrandizement in its near abroad and China's aggressive actions throughout its near seas, as destabilizing for global stability.

For U.S., Russia is a revisionist power that seems determined to change the current world order especially in Europe and is trying to reestablish its influence abroad and for these reasons Russia considers its nuclear arsenal as a tool of intimation and coercion rather than an instrument of deterrence.[14]

U.S. is also concerned about Russia's non-strategic nuclear weapons and modernization of these weapons as well as its other strategic weapons. According to 2018 U.S. NPR, "today, Russia is modernizing non-strategic weapons as well as its other strategic systems. Even more troubling has been Russia's adoption of military strategies such as escalate to de-escalate.[15] These developments in addition to Russia's annexation of Crimea and nuclear threats against the U.S. allies, show Moscow's leaning towards great power competition."[16]

Moscow's cyber capabilities and their intentions to use them during peace time and even during crisis, confrontation, or conflict are also a serious concern for the Americans.[17]

The U.S. is also concerned about Russia's disruptive non-nuclear technologies and thinks that these technologies have the capability to target their nuclear infrastructure.[18] For U.S. greater emphasis on nuclear weapons and lowering of nuclear threshold by Russian strategies, which rely on escalate to deescalate, is worrisome and threatening the global strategic stability.

U.S. also sees modernization of Chinese nuclear and conventional capabilities as a challenge to traditional U.S. military superiority in the Western Pacific.[19] Furthermore, North Korea's nuclear provocations and Iran's nuclear ambitions are also threatening to regional and global peace from the United States perspective.

Russian Federation

From the Russian perspective, U.S. withdrawal from the Anti-Ballistic Missile Defence (ABM) Treaty and subsequent development and deployment of Ballistic Missile Defence (BMD) system in U.S. and Europe, Conventional Precision-Guided Munitions (PGM) and possible weaponization of outer space are some factors negatively affecting strategic stability.[20]

Russia sees U.S. BMD as an attempt to undermine its nuclear deterrent which can start a new arms race. Russia also fears the offensive capacity of BMD interceptors and deplores their positioning near its borders which threaten Russian strategic arsenal.[21] According to the Kremlin spokesperson, Dmitri S. Peskov, "[Russia has] been saying right from start that [its] experts are convinced that the deployment of the ABM system poses a certain threat to the Russian Federation."[22]

According to the Russian military, U.S. missile defence has the potential to undermine both Beijing's and even Moscow's nuclear capabilities.[23] Moscow fears that BMD system that can affects its strategic deterrent and establishes a first-strike advantage for its rivals. Russian President, Vladimir Putin, has also termed the BMD system being deployed in Europe as offensive and part of the U.S. strategic nuclear capability.[24]

On June 19, 2013, Russian President Vladimir Putin, stated that "we see that work is active around the world on developing high-precision conventional weapons systems that in their strike capabilities come close to strategic nuclear weapons. Countries that have such weapons substantially increase their offensive capability."[25] This shows Russian concerns that U.S. high-precision conventional weapons could be used to hold Russian nuclear forces at risk. Russians are mainly concerned about the U.S. Conventional Prompt Global Strike (CPGS), an initiative to develop long-range non-nuclear weapons, such as, advanced Hypersonic Weapons that could hit distant targets in a short period of time. In 2007, Anatoly Antonov, who was then director of

the Security and Disarmament Department at the Russian Ministry of Foreign Affairs stated that "prompt global strike when combined with global missile defense, becomes a means of seeking to dominate the world politically and strategically".[26]

Furthermore, Russian says that such weapons would be destabilizing because one cannot distinguish between a conventional or nuclear missile therefore, their use could be misconstrued as a nuclear attack, leading to nuclear retaliation.[27]

Russia also has serious concerns with the possible weaponization of outer space by the United States. Russian President Vladimir Putin noted that the U.S. saw space as a "theater of military operations" and that the development of the U.S. Space Force posed a threat to Russia.[28] Russians have also expressed concerns that any first place of weapons in outer space will lead to an arms race.

According to Mr. Anatoly Antonov, Russian Ambassador to the United States, factors that significantly impact strategic stability are;

> "Deployment of global missile defense, implementation of the "prompt strike" concept, threat of placement of weapons in outer space and designation of space as a "war-fighting domain," quantitative and qualitative imbalances in conventional arms in Europe, development and deployment of low-yield nuclear warheads, and adoption of new doctrines that lead to lowering the threshold of using nuclear weapons."[29]

China

From China's perspective, few factors that are potentially undermining the global strategic stability include; unilateralism and hegemonism, U.S. policy of targeting China, U.S. development of global missile defence system and Prompt Global Strike (PGS), military development in cyber and outer space and emerging technologies in

cyber, space and Artificial Intelligence (AI). China considers that strategic stability at the global level can only be established if the security concerns of all states are taken into account.[30]

According to a Chinese official[31], unilateralism and hegemonism tendencies are posing major threats to the international order. The continuous blaming of China, by the U.S. officials, is creating trust deficit which is making it more difficult for both sides to coordinate on strategic security issues.

China is of the view that the U.S. withdrawal from arms control treaties is negatively impacting global strategic stability, peace and security in Europe and Asia-Pacific and international arms control regime.[32]

China also opposes the U.S. deployment of ground-based intermediate-range missiles in the Asia-Pacific region and is serious about taking countermeasures in defence of its national security.[33] China views the U.S. Asia-Pacific rebalancing strategy - now termed as Indo-Pacific strategy[34] by the Trump administration – detrimental for regional and global peace. China believes that under the guise of free, fair and reciprocal trade, open investment environment, good governance and freedom of seas, the U.S. is increasing its military foot print in the region and raising multiple power players to cope with the rise of China.[35] U.S. also sees One Belt One Road Initiative (OBOR) as an initiative by China to expand its geographical influence and to some extent challenge U.S hegemony.[36] This is going to impact China's promotion of regional economic integration and poses a threat to China's economic security.

Furthermore, China considers the development of emerging technologies in outer-space, cyberspace and AI, without any international rules regulating them, as a challenge to international security governance.[37]

Mr. Fu Cong, Director-General of the Department of Arms Control of the Ministry of Foreign Affairs of China puts the Chinese concerns

well, while stating that the global strategic stability is under duress because of collapse of bilateral arms control agreements, great power rivalry, arms race, unilateralism and advances in emerging technologies in the absence of rules that govern them.[38]

Implications

The great power competition and diverging views on factors affecting strategic stability are having serious implications for strategic stability, some of which are discussed below.

Trickledown effect on South Asia

South Asia is more or less affected by all the issues which according to American, Russian or Chinese perspective threaten global strategic stability. While India shares U.S. concerns over China's emergence as a global player, Pakistan faces the threat of Indian expansion in the form of Article 370 and 35-A's abrogation that threaten the disputed status of Jammu and Kashmir – as did the U.S. in case of Crimea. In its pursuit of containing China, the U.S. is building up India not just militarily but economically and politically as well. The U.S. has termed India as its major defence partner, which is reflective in the magnitude of defence cooperation between the two countries. Although the advanced technology transfers in air, land and sea domain are justified as being China specific; however, they threaten the fragile South Asian strategic stability. This is not only driven by history of conflicts between India and Pakistan but also by the orientation of Indian military buildup that is clearly directed at Pakistan rather than China. In the wake of destabilizing developments on Indian side, Pakistan feels pressurized to carry the burden of maintaining stability in the region. The destabilizing aspects of granting India an undue role is also manifested in politicization of non-military multilateral arrangements like the Financial Action Task Force (FATF).[39] Pakistan's victimization at Indian hands becomes even more problematic as the latter itself sports a black money

economy that is estimated at whopping seventy-nine percent of its GDP.[40]

Pakistan also shares Chinese and Russian concerns over deployment of BMD systems. While Russia opposes U.S. deployment of BMD systems around the globe, it has sold India the formidable S-400 system that can be used in a BMD role. Pakistan shares major concerns with China and Russia over weaponization of outer space and weapons that threaten peaceful operations of civilian assets in the outer space.[41] At the regional level, the taboo on non-introduction of such weapon systems has been broken with Indian ASAT test.

The trickledown effect of the great power competition in South Asia is also governed by the evolving deterrent relationship between the global powers. India not only claims to be threatened by Chinese military capabilities, even though India's own nuclear program predates Chinese nuclear tests or the 1962 Sino-Indian war, but also tends to emulate global powers in any aspects that it can. This is evident from the attempts to present itself as a part of the "nuclear elite" as it tests new technologies, be it BMD, SSBNs, or an Anti-Satellite capability. Mainstream Indian media and analysts mention how India has joined an 'elite club' of nuclear haves.[42] This endeavor to associate with the nuclear elite has led India into developing technologies that it did not need in the first place. One such example could be that of its assured second-strike capability in the form of Arihant class submarines which are considered redundant given Indian land forces' ability to sufficiently deter both China and Pakistan.[43]

Another Indian fixation seems to be with the philosophy of the BMD system. Despite the shortcomings of BMD system in the U.S.' context, Indian leadership seems to have calculated that they can overcome the system's shortcomings (which are exacerbated in Indian case by geographical proximity, short warning times, and availability of cruise missiles and MIRV capable ballistic missiles with Pakistan). Just like the U.S. believed it could execute successful decapitating strikes

against the former Soviet Union, India also seems to be fixated over the remote possibility of achieving successful pre-emptive strikes against Pakistan. To this end, it is not only covering the damage-limitation aspect in the form of multi-layered BMD system but is also mulling over the possibility of taking out Pakistan's nuclear forces through use of its counterforce capabilities in the form of accurate short range and counterforce missile systems, advanced I^2SR capabilities, and bigger nuclear forces in terms of weapon usable fissile materials and delivery systems.[44]

A mutually agreed upon criteria that identifies the factors contributing towards undermining global strategic stability is thereby extremely important. South Asian region is divided between supporting the U.S., Russian, and Chinese views on certain constituents of the global stability. However, in order to reduce the nuclear dangers, such an understanding has to be mutually acceptable to not just the NPT recognized nuclear weapon states but to all the nuclear weapon possessor states regardless of their NPT status.

Decline of Arms Control

Arms control landscape seems to be already deteriorating with the U.S. withdrawal from the INF treaty and possible expiry of New START in 2021 without an alternative in sight. Arms control has historically provided the sobering effect to an otherwise unfettering arms race between the U.S. and erstwhile Soviet Union, thereby constituting a very important factor governing strategic stability. The INF treaty and predecessors of New START provided the foundations for deterrence to work with lower numbers through greater transparency and confidence in other side's actions. With collapse of these arms control arrangements, stability is likely to be pursued by further armament. A possible increase in American and Russian nuclear forces could prompt China to follow suit in an environment marred by lack of trust and absence of verification mechanisms.

The U.S. has advocated a trilateral arms control arrangement on the lines of INF Treaty believing that Chinese nuclear delivery systems and arsenal should also be included in any arms control arrangement. It asserts that Washington and Moscow should not take the restraint measures bilaterally and that other nuclear powers, especially China, should also be included in multilateral negotiations for arms control. Christopher Ford, Assistant Secretary of State for International Security and Non-proliferation, said "It is vital that nuclear arms control adapts itself to the modern strategic environment; we are committed to involving both Russia and China… by negotiating a trilateral nuclear arms control agreement."[45] There have also been contradictory statements suggesting that the "objective" is not about a "cap" on any one country's nuclear arsenal but to develop a "set of conditions" that would create "global strategic stability."[46]

The rationale, presented so far, for Chinese inclusion in INF and New Start like arrangements does not seem to cater for the existing mismatch in the qualitative and quantitative differences between the Chinese nuclear forces compared with the U.S. or Russian. Nonetheless, any agreement on observing certain good practices should be a welcome development. The rationale for bringing up China appears to draw attention away from the extension of New START. This is also acknowledged by some American experts. For instance, Linton Brooks Former administrator of the National Nuclear Security Authority (NNSA) argued that, "Those proposing inclusion of China in a trilateral mechanism either do not understand the arms control or deliberately attempt to divert attention from real issues." Likewise, one Chinese diplomat is reported to have said, "Do you want to bring your arsenal down to our level (estimated at some 290 warheads), or our arsenal up to yours?"[47] Given the realities of vastly different capabilities, in terms of nuclear forces, it is unlikely that such a proposal will lead to any significant development.

Nuclear Weapons Modernization

All the major powers, which are involved in this great power competition are qualitatively modernizing their nuclear forces and can possibly go for quantitative improvements if New START expires without an alternative. According to an opinion piece published in Global Times - an English language Chinese newspaper – "China should increase its nuclear warheads to 1,000 in a relatively short time span, and to procure at least 100 DF-41 strategic missiles to curb U.S. government's strategic ambitions and bullying impulse against China."[48] Likewise, U.S. Nuclear Posture Review (NPR) 2018, called for developing diverse set of nuclear capabilities that can give the U.S. President flexibility of having different options for dealing with different threats[49], hinting at increase in nuclear capabilities. Similarly, Russia is also modernizing its nuclear weapon systems. In 2017, Russian President Vladimir Putin mentioned that the share of modern weapons replacing the old ones in Russia's nuclear triad would be 90 percent in 2021.[50]

U.S. - Currently, the U.S. is maintaining an estimated stockpile of approximately 3,800 warheads, out of which, 1,750 warheads are deployed and 2,050 are held in reserve.[51] At present, U.S. has 400 land-based Minuteman III Intercontinental Ballistic Missiles (ICBMs), 14 ballistic missile Trident submarines - each can carry 20 Trident II (D-5) Submarine Launched Ballistic Missiles (SLBMs) – and 20 B-2A bombers (all of which are nuclear-capable) and 87 B-52H bombers (46 of which are nuclear-capable).[52]

The U.S. Air Force has initiated a program to replace Minuteman III with next-generation ICBM known as the Ground-Based Strategic Deterrent (GBSD). The new missile is scheduled to begin replacing Minuteman IIIs in 2029 or 2030 and is expected to have a greater range than the Minuteman III, making it possible to target not just Russia but also potentially China, North Korea, and Iran, from the continental United States.[53] The replacement of current U.S. land-

based ICBMs with GBSD will give it the flexibility for a wide range of scenarios and it would perform better against modern, precision-guided missile defenses.[54] U.S. Air Force is also developing a new nuclear air launched cruise missile known as the Long-Range Standoff (LRSO) missile, which will replace the AGM-86B air-launched cruise missile in 2030.[55] During testimony, before both the House and Senate Armed Services Committees in 2015, Admiral Haney, the Commander of U.S. Strategic Command (USSTRATCOM) stated that the "LRSO is important from a deterrence and warfighting point of view because it will provide U.S. Air Force bombers with a standoff capability essential to beat adversary's advanced air defenses." According to another U.S. official, "LRSO will act as a force multiplier augmenting the long-range bomber force and appreciably complicating an adversary's ability to defend its airspace and would make countermeasures both more costly and problematic for the adversary and thus enhance deterrence."[56] The U.S. is modernizing its nuclear bomber force as well by developing improved nuclear weapons (B61-12) and designing a new heavy bomber, the B-21 Raider.[57] In the Fiscal Year 2021, the U.S. Air Force is investing $12.8 billion in the sustainment, modernization, and recapitalization of the nuclear enterprise.[58]

Since 2017, U.S. Navy has been replacing Trident II D5 SLBM with upgraded version known as Trident II D5LE (LE stand for life-extended) which is more accurate.[59] Further, the U.S. Navy has also deployed a new low-yield warhead, W76-2 on Trident II missiles and described it as counter to any mistaken perception of an exploitable gap in U.S. regional deterrence capabilities.[60] The U.S. administration justified the development by saying that U.S. did not have a prompt and useable nuclear capability that could counter – and thus deter – Russian use of its own tactical nuclear capabilities.[61] The U.S. Navy has also designed and is beginning production of new 12 Columbia class Ballistic Missile Submarine (SSBNs) that will replace the existing OHIO class submarines.[62]

Russia - Russia is also modernizing its nuclear forces to replace Soviet-era weapons with the new systems. Currently, it has 4,310 nuclear warheads out of which 1,570 are deployed on land-based ICBMs, SLBMs and at heavy bomber bases.[63] According to different estimates, Russia has approximately 302 ICBMs, operates 10 nuclear-powered SSBNs, of three classes: six Delta IV, one Delta III, and three Borei, each can carry 16 SLBMs and 60-70 Tu-160 Blackjack and Tu-95MS Bear H heavy bombers, which can carry Kh-15 nuclear cruise missile.[64]

Russia is modernizing its ICBMs and replacing the missile from Soviet era. Currently, the remaining Soviet era ICBMs include the SS-18 (RS-20V), the SS-19 (RS-18), and the SS-25 (RS-12M, Topol) which is being replaced by SS-27 Mod 1 (RS-12M 1 and 2 - Topol-M) and the SS-27 Mod 2 (RS-24 - Yars) and SS-X-29 (RS-28 - Sarmat).[65] According to Russian President "Sarmat ICBM has a short boost phase, which makes it more difficult to intercept for missile defence systems and it will be equipped with a broad range of powerful nuclear warheads, hypersonic capability, and the most modern means of evading missile defence. Further, Sarmat has practically no range restrictions and can attack targets both via the North and South poles."[66] Russia is also developing a nuclear-powered, nuclear armed cruise missile, known as 9M730 Burevestnik (NATO's designation is SSC-X-9 Skyfall).[67]

The Russian Navy is looking to replace Delta IIIs and Delta IVs submarines with new Borei class submarine and developing a nuclear-powered, very long range, nuclear-armed torpedo, Poseidon.[68] Russia is also planning to field an upgraded, stealthier version of the Tu-160 bomber, known as Tu-160M2. Some of the newer system Russia is working on are hypersonic missile, Kinzhal and hypersonic boost-glide system, Avangard [69] all developed to counter any BMD systems.

China – Currently, China has 290 nuclear warheads to be delivered by ICBMs, SLBMs, and bombers.[70] It has approximately 180 to 190

ICBMs, operates a fleet of four Jin-class SSBNs, each carrying up to 12 JL-2 (SLBM) and has H-6 heavy bombers.[71]

Over the last few years, China has introduced three new ICBMs, which include, a modification of the existing DF-21 Medium-Range Ballistic Missile (MRBM), a new intermediate-range ballistic missile (IRBM) known as the DF-26 and DF-41 ICBM, which will also be capable of carrying multiple warheads.[72] DF-41 is expected to have a range of 12,000-15,000 km making it a longest missile range in operation and can reach U.S. within 30 minutes.[73]

In naval domain, China is looking to develop the third generation (Type 096) SSBN, which is quieter than the current submarines, it operates and will carry extended-range SLBM, the JL-3, which have a range of more than 9,000 kms.[74] In 2016, Former People's Liberation Army Air Force (PLAAF) Commander, General Ma Xiaotian, publicly announced that China is working on a new stealth strategic bomber, known as the H-20 that might become operational in late 2020.[75]

Nuclear modernization and development of new weapons systems is leading to arms race among major states. The development of BMD system and its wide spread deployment is seen with great concern by the Russians[76] and Chinese[77]. For instance, the recently released document titled "Basic Principles of State Policy of the Russian Federation on Nuclear Deterrence" states that deployment of BMD system as a military threat to Russia.[78] Similarly, Chinese Foreign Ministry has firmly opposed the U.S. Terminal High Altitude Area Defence (THAAD) system in the region.[79] This has led them to take counter-measures by developing weapons systems that can penetrate any defenses, such as high-speed cruise missiles and hypersonic glide vehicles. Similarly, the U.S. deployment of low yield nuclear warhead on submarines is apparently meant to give its decision makers a flexible option for response and to deter Russia from using a similar kind of weapon.[80] However, the development of such weapons will lower the threshold of nuclear weapons, which may lead to escalation.

Finally, the modernization and development of new weapons, such as, next generation BMD system, hypersonic missiles, hyper glide vehicles, ICBMs with MIRV capabilities, nuclear powered cruise missile are undermining strategic stability by eroding the two-basic principle of strategic stability, mutual vulnerability and nuclear survivability. In addition, a BMD system coupled with precision high speed missiles can give a country the confidence that it can take out all of adversary's nuclear delivery systems with its precision weapons in a first strike and any residual capability left could later be intercepted through their BMD systems. In such a scenario, the adversary will be facing a lose-it or use it dilemma, leading it to launch a pre-emptive first strike. This may lead to first strike instability during a crisis, thus undermining strategic stability.

Renewed Emphasis on Nuclear Weapons

In recent years there has been a renewed emphasis on the importance of nuclear weapons, and their modernization for dealing with contemporary security threats. The 2018 U.S. NPR states that "in this environment, it is not possible to delay modernization of our nuclear forces if we are to preserve a credible nuclear deterrent." According to a statement by General Charles Q. Brown, Jr., USAF, on 7 May 2020 "A safe, secure, reliable and effective nuclear triad is essential to deterring threats against the U.S. homeland and underpins every other military operation around the world."[81] The U.S. has also hinted at deploying IRBM in Asia-Pacific and Europe to deal with threats from these region to itself and its allies.[82]

Similarly, Russian President Vladimir Putin in his 2018 speech also unveiled new Russian nuclear weapon systems that Russia is developing in response to U.S. withdrawal from arms control treaties and their BMD deployments.[83] He also hinted that development of nuclear capability is important for making Russia a great power again.

China also unveiled its DF-41 ICBM during the time of tensions with the U.S. in an apparent attempt of nuclear signaling. According to a retired People's Liberation Army colonel, Yue Gang, "Although we have no way to compete with you, we are now developing some unique equipment so that America does not dare to go first against us."[84] Rick Fisher, an expert on People's Liberation Army, at the International Assessment and Strategic Center, a Washington based think tank, also believes that China now understands that it is now in a missile race with the U.S. as it has plans to deploy nuclear missiles in Asia-Pacific.[85]

It seems that now countries are willing to fight a nuclear war and are possibly thinking of winning it too. The thinking during the Cold War among world leaders that nuclear war could not be fought and won because of mutual assured destruction, is now somewhat diminishing, primarily because of the advancement in nuclear weapons technology. This tendency towards nuclear use and warfighting has given nuclear weapons a center stage in the nuclear doctrines of major states.

Therefore, the elimination of existing arms control treaties, development of new weapon systems, modernization of existing ones, nuclear arms race and idea of fighting and winning a nuclear war is indicating a shift towards the renewed emphasis on nuclear weapons for dealing with major security threats, which was on the decline in the post-Cold War era.

Conclusion

The contemporary international security environment is marred by great power competition, which is more complex than during the Cold War because of its multipolarity. The three major powers, the U.S., Russia and China are competing in political, military, economic, information and technology domains. Conflict leading to escalation in any of these domains can have serious consequences for world peace and stability. Furthermore, each power has different views on factors that are undermining the strategic stability thus making it more

fragile. Therefore, this great power competition is leading to regional instabilities in South Asia, nuclear weapons modernization, arms race, and decline of arms control as the key players diverge on their understanding of factors affecting strategic stability. More importantly, nuclear weapons modernizations, development of new ones, emerging technologies, such as, AI, cyber and space capabilities, development of hypersonic weapons and next generation BMD systems are affecting first strike stability, crisis stability and arms control stability, which are the essential pillars of strategic stability.

In order to strengthen strategic stability all nuclear weapons states should reduce the role of nuclear weapons in their national security doctrines, abandon pre-emptive nuclear use and abstain from expanding their arsenals qualitatively and quantitatively. States should show restraint in developing strategic capabilities that can undermine or neutralize the nuclear deterrent capabilities of other states and trigger an arms race. The existing arms control treaties, such as, New START should be extended to create conditions for other nuclear-weapon states to participate in the negotiation process of nuclear risk reduction. There should be a focus on pursuing nuclear disarmament under the principles of maintaining global strategic stability and "equal and undiminished security for all"[86]. The states should regularly involve in dialogues on strategic stability, nuclear doctrines and strategies, as it would help in objectively assessing each other's strategic intentions and security concerns. This would also be helpful in preventing inadvertence and occurrence of crises caused by strategic misjudgments and avoid competition.

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