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South Asia's Strategic Stability Under Systemic Overload

Brigadier (R) Dr Zahir Kazmi

A Region on the Edge

South Asia's fragile deterrence equilibrium is entering an era of systemic overload. Once sustained by a bilateral nuclear balance and the discipline of restraint, the region now sits at the intersection of great-power rivalry, alliance politics, and technological disruption. For Pakistan, strategic stability has always meant a state of deterrence equilibrium in which neither side perceives an advantage in initiating conflict—whether conventional, sub conventional, or nuclear. That equilibrium depends on three interlocking pillars: the ability of deterrence to hold under crisis stress, the avoidance of arms races driven by insecurity, and the maintenance of credible communication channels even in confrontation. Each of these pillars is now under strain. The result is an increasingly compressed decision-making environment in which escalation can occur faster than diplomacy can respond. The United States' Indo-Pacific strategy, India's evolving doctrinal preferences, and the rapid spread of disruptive military technologies have together transformed the South Asian deterrence problem from a bilateral puzzle into a regional system under external stress.

External Architectures, Internal Dilemmas

At the geopolitical level, the Indo-Pacific architecture has redefined the region's security calculus. Washington's effort to build a lattice of partnerships (the Quad, AUKUS, and related mini-laterals) aims to constrain China's strategic reach. Yet by extension, this design also constrains Pakistan, China's mainstream partner through the China–Pakistan Economic Corridor (CPEC). Within this architecture, India has been elevated to the role of "Net Security Provider," a regional policeman and the principal conduit for Western technology transfers. Publicly available U.S. policy documents, such as the Integrated Country Strategies for India, Pakistan, and China, make the hierarchy explicit: India is described as a "like-minded partner," Pakistan as a state to be "stabilised and influenced," and China as a systemic rival to be contained. The resulting asymmetry in external endorsement has created what can only be called a structural security dilemma. Pakistan's defensive adjustments are read as obstruction; its restraint is interpreted as weakness. In such an environment, strategic stability ceases to be a durable state. It becomes a contested process managed from crisis to crisis.

The Indo-Pacific's Geo-economic Layer

The Indo-Pacific is not merely a military construct; it merges economic and strategic domains in ways that magnify power disparities. India, despite maintaining close energy and defence ties with Russia, enjoys deep integration into Western supply chains, technology corridors, and maritime security arrangements. It benefits simultaneously from Washington's strategic indulgence and Moscow's defence cooperation, which is a unique dual alignment that few other states enjoy. Pakistan, in contrast, remains cast primarily through a security lens. Yet the CPEC, linking Gwadar to western China, is not just infrastructure; it is a strategic artery that underpins regional connectivity. Efforts to undermine its credibility through financial coercion, ratings

manipulation, and lawfare are therefore not economic acts alone; they are instruments of strategic containment. In today's landscape, geo-economics has become the first line of geopolitics.

Doctrinal Drift in New Delhi

Since the 2019 Pulwama–Balakot crisis, India's nuclear doctrine has exhibited a pronounced drift toward counterforce and compellence. Once anchored in "credible minimum deterrence," Indian strategic thought now openly entertains concepts of preemption, precision counter-value signaling, and rapid escalation cycles, which framed as limited war. The Balakot episode marked a pivotal test. Assuming that Pakistan's nuclear deterrent would not respond to conventional provocation, New Delhi violated the frontiers in February 2019. Islamabad's proportionate response, culminating in the downing of Indian aircraft and the measured return of a captured pilot, restored deterrence through restraint rather than panic. It demonstrated that disciplined retaliation could preserve both credibility and stability, which is a lesson later reinforced during the May 2025 war.

Alliances and Asymmetry

India's partnerships with major powers have deepened its qualitative edge. Through the Quad, it receives advanced intelligence-sharing and logistics access under agreements such as LEMOA, COMCASA, and BECA. Through AUKUS, it benefits indirectly from joint research on propulsion and undersea warfare technologies. Meanwhile, enduring cooperation with Russia—the so-called RUIN nexus, referring to Russia–India nuclear and naval ties—provides critical undersea and SSBN-related expertise. Pakistan, by choice and necessity, remains outside formal military blocs. Yet this independence comes at a cost: asymmetric enabling. India's modernisation programs are legitimised as contributions to a free and open Indo-Pacific, while Pakistan's strategic responses are scrutinised as anomalies. To preserve balance under these conditions, Islamabad's Full Spectrum Deterrence (FSD)—nested within Credible Minimum Deterrence (CMD)—must remain dynamic and adaptive, absorbing asymmetries without mimicking them.

Technology, Time, and the Compression of Crisis

Perhaps the most dangerous transformation is technological. India's cooperation with the United States, France, and Israel has yielded capabilities in emerging disruptive technologies (EDTs)—hypersonic and extended-range nuclear BrahMos variants, Agni-V ICBM's non nuclear precision systems, drone swarms, and early work on quantum-assisted decryption. The May 2025 "Operation Sindoor" confrontation illustrated how some of these capabilities compress decision cycles. Over four days of air, cyber, and maritime exchanges, India integrated space-based intelligence and long-range precision systems in a multi-domain offensive. Pakistan restored conventional deterrence through readiness, calculated responses and composure, but the crisis revealed a sobering truth: if technological advantage becomes sharper; nuclear thresholds will be lower. As technology accelerates, the window for miscalculation narrows. If current trends persist, South Asia may enter an era in which the

pressure to early nuclear-use grows as decision timelines shrink—a paradox where modernisation increases insecurity rather than reducing it.

Hybrid Warfare and the Politics of Lawfare

India's strategy now seeks victory below the nuclear threshold. It employs a mix of disinformation, economic coercion, and legal narratives to weaken Pakistan's international standing. From orchestrated media campaigns portraying Pakistan as a source of instability to the manipulation of financial instruments and multilateral pressure mechanisms, hybrid warfare has become a permanent feature of the subcontinental contest. Pakistan has little interest in responding kinetically to every provocation. Instead, the response must be proportionate, domain-specific, and information-centric. That means contesting falsehoods in real time, reinforcing economic resilience, and signalling that hybrid warfare carries reciprocal costs. As experience shows, deterrence begins not in missile silos but in the information domain; when a state loses control of its narrative, it risks losing control of its deterrence.

Arms Control as Manoeuvre, Not Muzzle

Global arms-control regimes are fraying, and emerging technologies have outpaced international regulation. Under these conditions, Pakistan cannot accept discriminatory treaties—such as a Fissile Material Cutoff Treaty that freezes asymmetries while others modernize. Arms control, in this environment, should be a strategic manoeuvre, not a muzzle. By engaging in the language of restraint, Pakistan can slow destabilising transfers, expose double standards, and buy the most valuable strategic commodity of all: time. In diplomacy, as in deterrence, time is capability.

Restoring Stability: A Responsible Stakeholder

Preserving equilibrium amid systemic overload demands clarity rather than confrontation. Pakistan's approach should be guided by several principles. First, credible balance: Islamabad should seek parity of effect, not parity of numbers. Deterrence credibility lies in assured response and disciplined control, not in stockpile size. Second, technological balancing: instead of matching platforms, Pakistan should continue to focus on creating mutual vulnerability through deception, electronic warfare, and hardening of command networks. Third, modernised confidence-building measures: existing CBMs must evolve to include cyber non-interference pledges, long-range armed drone pre-notifications, and incident-at-sea protocols, especially as India's naval ambitions expand into the Indian Ocean. Finally, narrative discipline: the crises of 2019 and 2025 showed that restraint, if poorly communicated, appears as weakness. Responsible transparency and factual communication can reinforce stability more effectively than triumphalism.

Toward an Indigenous Grammar of Stability

For too long, South Asia's deterrence debates have borrowed frameworks from distant contexts—the Cold War, the Middle East, or the Pacific Rim. Yet the region's geography, timelines, and domestic politics render those models only partially relevant. South Asia's scholars and practitioners must now articulate an indigenous grammar of strategic stability, one

that recognizes both nuclear maturity and persistent volatility. This requires empirical research, academic collaboration, and intellectual confidence: an understanding that stability in this region will not mirror that of others. It will be managed, not achieved; balanced, not frozen.

The Equilibrium Ahead

Two crises—2019 and 2025—offered painful lessons. In each, deterrence held because Pakistan combined capability with composure. Restraint under provocation restored stability when impulsive escalation could have undone decades of equilibrium. The next challenge may emerge at sea, where India's external partnerships and naval modernization intersect. The lesson remains constant: deterrence works only when discipline sustains it; technological parity must be qualitative, not quantitative; and narratives decide crises before weapons do. South Asia's choice is stark but simple: security through equilibrium, not escalation. Pakistan remains committed to that equilibrium: firm in capability, disciplined in conduct, and transparent in communication.

Link: ***https://ciss.org.pk/south-asias-strategic-stability-under-systemic-overload/***

The Collapse of Arms Control Mechanisms and the Perils of the Third Nuclear Age

Amna Saqib

For decades, arms control regimes served as the guardrail that kept nuclear competition constrained. Treaties such as the Intermediate-Range Nuclear Forces (INF) Treaty and New START established limits on arsenals, eliminated destabilizing categories of missiles, and introduced unprecedented verification regimes that provided predictability in an otherwise precarious strategic environment. These frameworks were not ideal, but they were effective, even at the peak of Cold War tensions. Today, however, these structures are eroding. The INF has collapsed, New START will expire in 2026, and no replacement is under negotiation. These developments represent the collapse of Cold War guardrails; it marks the beginning of the "Third Nuclear Age," an era characterized by multipolar rivalry, disruptive technologies, and a significantly less margin for error. Without arms control treaties, the restraints that once moderated great-power competition have disappeared, giving way to renewed arms race, deepening mistrust, and fragile crisis stability.

The trajectory of nuclear competition can be divided into three phases. The First Nuclear Age was defined by US–Soviet bipolarity, in which the deterrence rested on the stability of a two-power system. The Second Nuclear Age was characterized by the post-Cold War detente and arms control, while the Third Nuclear age, by contrast, is marked by less restraint, unstable rivalries and disruptive technological capabilities. Multipolarity, combined with technologies such as hypersonic weapons, missile defense, cyber operations, and AI-enabled command systems have compressed decision-making timelines and increased the risks of miscalculation. In the absence of stabilizing safeguards, mistrust rises, nuclear modernization accelerates, and crises become increasingly difficult to manage.

The stabilizing role of past treaties is well established. The first treaty to eliminate a whole category of missiles was the INF Treaty of 1987, eliminating nearly 2,700 US and Soviet missiles and established a new standard in transparency through verification. Similarly, the New START Treaty, signed in 2010, imposed restrictions on the deployed strategic warheads and delivery systems, while establishing inspection and data-exchange mechanisms that built confidence amidst the strained relations between US and Russia. Collectively, such agreements contain arms racing, reduced risk of misperception, and reflected that even adversaries divided by deep ideological differences could acknowledge the necessity of mutual constraints. The gradual erosion of these arrangements is not merely a legal setback; it signifies the dismantling of mechanisms that once provided a foundational framework for maintaining strategic stability.

The timing of the collapse of traditional arms control is particularly concerning, as it coincides with the rapid proliferation of Emerging and Disruptive Technologies (EDTs) that earlier treaties never anticipated. For instance, hypersonic glide vehicle (UGV) minimizes the decision-making windows to only a few minutes, leaving the decision makers with limited time to determine whether an incoming strike is conventional or nuclear. Likewise, missile defense systems, rather than reinforcing stability, often provoke adversaries to expand or diversify their arsenals to guarantee penetration, thereby increasing competition instead of reducing it. In

addition, cyber operations create vulnerabilities for the integrity of command-and-control system, raising profound concerns regrading accountability and the preservation of human oversight. In this context, the primary threat to the strategic stability lies less in the number of that missiles states possess than in the disruptive impact of these technologies, which blur conventional thresholds and compress decision timelines. In the absence of effective arms control mechanisms to regulate their development and deployment, such technologies continue to destabilize both regional security dynamics as well as the broader global nuclear order.

The world has shifted into multipolar world order, often described as unstable (dis)order. The five nuclear flashpoints including the Korean Peninsula, South Asia, the Taiwan Strait, the Middle East, and Eastern Europe; are all characterized by unresolved disputes and weak crisis-management mechanisms, making them highly vulnerable to escalation. Yet no global framework exists to mange this complexity. The demise of INF and the uncertain future of New START thus signifying more than the demise of US–Russia restraint but also the failure of arms control to adapt to a multipolar nuclear reality. However, the Chinese nuclear forces, are still not at par with the US and Russia because history shows that major powers engage in an arms control only when their capabilities were symmetric in nature.

The South Asian region illustrates how the erosion of global arms control frameworks directly contributes to regional instability. Indian exceptionalism, reinforced through nuclear cooperation and defense agreements, has accelerated its pursuit of multiple independently targetable re-entry vehicles (MIRVs), hypersonic weapons, and ballistic missile defense systems (BMDs). India is pursuing the development of a nationwide, multi-layered BMD shield that combines indigenous interceptors with advanced systems such as the Russian S-400 missile system. While presented as a defensive measure, this ambition risks undermining regional deterrence by encouraging counterforce strategies and destabilizing South Asia's strategic balance. Therefore, Pakistan must opt for restrained response to Indian modernization to uphold nuclear deterrence stability. The geographical position increases this risk: with short missile flight times and limited early-warning capabilities, leaders might have only minutes to decide in a crisis. Unlike the Cold War, South Asia lacks strong hotlines, comprehensive missile test-notification agreements, or regional arms control mechanisms to prevent escalation. The crisis in the region would not remain confined; its effects would spread throughout the global nuclear order, demonstrating that the Third Nuclear Age is not a theoretical construct but a living reality.

In this context, the long-standing Pakistani proposal for a Strategic Restraint Regime of Pakistan, which includes missile-test notifications, a destabilizing deployment limit, and confidence-building measures, provides a practical mechanism for stability. Yet the initiative has received little international support. Rather, India has also been selectively accommodated into international export-control regimes, including Missile Technology Control Regime (MTCR). Such preferential treatment, together with the lack of regional restraint mechanisms, exacerbates asymmetries and increases instability. In South Asia, Pakistan should not be the only state responsible for exercising restraint; India also carries an equal responsibility to avoid actions that destabilize the region.

Extensive non-proliferation norms have also been eroded by the erosion of arms control. For decades, treaties like INF and New START symbolized that restraint was possible even during rivalry. If the leading custodians of the nuclear order no longer prioritize limits while selectively privileging certain states, smaller and excluded powers have little incentive to exercise restraint.

There has been a significant degradation of nuclear signaling. Unlike in the Cold War where the communication of deterrent messages was through the formal diplomatic and military channels, the modern signaling is being communicated in informal and performative mediums including social media. This shift not only marginalizes nuclear discourse but also increases the lack of predictability and intensifies the risk of misperception during crisis. The destabilization of the norms, combined with the emergence of irresponsible signaling practices, only exacerbates the instability.

Adapting mainly global arms control to contemporary realities is therefore essential. The immediate priority must be the extension of New START, since even limited ceilings and verification measures are preferable to unconstrained modernization. Beyond this, interim measures are needed: negotiated limits on destabilizing systems such as hypersonic, restrictions on cyber interference with nuclear command systems, and the development of global norms for crisis communication. In South Asia, institutionalized hotlines, missile-test notification agreements, and renewed engagement with Pakistan's Strategic Restraint Regime are essential to prevent crises from escalation. None of these measures will be easy, but even partial initiatives are preferable to an unregulated race where technology outpaces diplomatic mechanisms.

The lesson of the last half-century is clear and obvious: the arms control doesn't eliminate rivalry, but it can regulate the most dangerous outcomes of this rivalry. The Third Nuclear Age differs from the earlier eras being more multipolar, technologically complicated, and prone to error, but its risks can still be reduced. Unless urgent measures are undertaken, this era will be marked not by adaptation but by instability, reckless competition, and the increased risk of nuclear weapons.

Arms control can' be limited today to the old idea of disarmament alone; it must expand into a broader framework of risk management. The urgent need is to preserve and extend New START, which, despite its limitations, still provides ceilings and verification measures. Beyond this, it is necessary to have a modular approach, pursuing agreements on emerging technologies, stronger crisis-management mechanisms, and renewed global norms.Reaffirming commitments to the Comprehensive Nuclear-Test-Ban Treaty (CTBT), preventing the weaponization of outer space, and restoring credibility to nuclear arms control would help in stabilizing the situation at the global level. Of equal importance are the regional initiatives. At the regional level, more international recognition should be given to such proposals like Strategic Restraint Regime of Pakistan, which focuses on restraint, transparency, and the prevention of conflicts in South Asia.

In the Third Nuclear Age, arms control must be adaptive, inclusive, and responsive to new technology. If it fails to adapt these realties, the world risks descending into a nuclear predicament that will be less marked by restraint than by instability.

Link: ***https://policyeast.com/the-collapse-of-arms-control-mechanisms-and-the-perils-of-the-third-nuclear-age/***

Illusions of Safety: Gulf States Exposed Under American Protection

Nawal Nawaz

The security calculus of the Arabian Peninsula underwent a paradigm shift with the unprecedented airstrikes by Israel on the Hamas negotiation team in Doha on September 9, leaving the fate of ceasefire in Israel's two-year genocidal war against Gaza on uncertain grounds. The officials from Hamas were in Doha for negotiations on a proposed truce backed by the US President. As per the reports, five members were killed in a targeted attack on residential buildings housing several members of Hamas political bureau. However, the negotiating team survived the assassination attempt. The attack against Hamas leadership, which has been a key mediator in Gaza ceasefire talks, on Qatar's soil, depicts the uneasiness of the Jewish State with the rising influence of Doha in geopolitics of the world. With these airstrikes, the security architecture of Gulf becomes vulnerable, rendering the Gulf States insecure under the American shield.

Beijing mediated understanding between the Persian-Arab duos has been one of the reasons that created uneasiness in the Jewish State. Besides the recent homogeneity between the Gulf Cooperation Council (GCC) and Iran, Qatar's reputation as a peacemaker and neutral broker in resolving critical issues further makes Israel insecure in the region. Doha has also been taking key strides for achieving ceasefire in Gaza. Hence, these airstrikes reinforce the security perspective that Qatar, Northeastern coastal emirate, has become a thorn in the eye of Israel. With the threat of further airstrikes, the security architecture of Gulf becomes more fragile.

In blatant violation of international law and norms, Israel attacked six Muslim countries including Palestine, Lebanon, Tunisia, Syria, Qatar and Yemen. In this act of external aggression, Qatar sought American response on the violation of sovereignty of Qatar and other Gulf nations. For decades, Arabs have been guaranting uninterrupted oil and gas supplies to the West and in response the US had pledged security for Gulf States from any external aggression. Both the Washington and Doha enjoyed robust economic ties with over 120 US companies operating in Arabian Peninsula. Doha stands as the second-largest buyer of American weapons globally and it also hosts largest US military base in the region and played an effective role in the US withdrawal from Afghanistan in 2021.

The peninsular state has emerged as the biggest soft power in the Middle East, with its media house, Al-Jazeera, having unmatched influence in the world. With its exceptional media outreach and diplomatic mediation, Doha has become indispensable on the world stage. Country has made big-ticket investments in Europe and the United States. Spanning from Hamas to Houthis, Qatar enjoys remarkable influence in the politics of the Middle East. It controls the geo-economics of the region with its undeniable asset of world's third largest natural gas reserves. It exports 77 million tons of LNG per year and further plans to expand its production to over 126 million tons per year. In the comity of nations, Qatar has a sophisticated image with a vision for mega-investments. However, many nations have condemned Israel for committing genocide in Gaza. Israel considers its soft power declining than Doha's, making the country thorn in eye of Israel.

Though Prime Minister Netanyahu denied US involvement in airstrikes in Doha, it still showed the world that the American allies are not immune to Israeli attacks. Vice President JD Vance expressed frustration on targeting of Hamas leadership in Doha, declaring airstrikes against US and Israeli national interests. The White House Press Secretary, Karoline Leavitt, expressed solidarity with Qatar leadership but remained short of condemning the actions. The White House declared Israel's airstrikes as "unfortunate," terming Qatar as strong ally and friend of the United States. Qatar's Prime Minister, Sheikh Mohammed bin Abdulrahman al-Thani, poured water on the US claims regarding the timely warning of the possible Israel attack on Doha, declaring Israeli strikes as "100% treacherous. " Mediator state, Qatar, was hosting official mediations with delegates from the same country that attacked it with more than ten fighter jets.

Israeli officials have acknowledged the use of stealth US-made F-35I fighter jets that are capable of avoiding radar detection and that these were used to penetrate Tehran's air defenses during Israel's strikes on Iran in June. Qatar considered attack on Doha an act of terrorism, declaring Israel as a rogue player that is involved in bullying its neighboring Gulf States with impunity. Therefore, in order to materialize its proposed ceasefire on Gaza, the United States must take into account the Israel's reckless behavior in the Middle East. Qatar has successfully positioned itself as a mediator and seeks to uphold its tradition of diplomacy by pushing for an end to the war in the Gaza Strip. However, the responsibility now lies with the United States and other international powers to rein in Israel's aggression and prevent further escalation in the region.

Link:[***https://cscr.pk/explore/themes/defense-security/illusions-of-safety-gulf-states-exposed-under-american-protection/***](https://cscr.pk/explore/themes/defense-security/illusions-of-safety-gulf-states-exposed-under-american-protection/)

Indian Missile Expedition: Post Pahalgam

Malik Kashif & Abdul Moiz

The India-Pakistan standoff in May 2025 put the region on the brink, with India aggressively attacking civilian and military targets in Pakistan. However, during the conflict, India lost 6-7 fighter aircraft and had to ask for a ceasefire. After the crisis, India has gone on a spree of missile tests, nine so far, to improve and enhance its standoff weapon capabilities. Indian ambitions are inherently destabilizing for both crisis and arms race stability in the region. The conflict marked a notable shift toward emerging non-contact warfare, where states increasingly rely on drones, missiles, and fighter jets instead of direct ground assaults. Since then, India has accelerated the development and validation of its missile arsenal to improve their operational credibility. They are aiming to pursue multi-layer options, from short-range to intermediate-range ballistic missiles, demonstrating their intention to adopt such options in future conflicts. This also highlights the Indian leadership's goal to further lower the nuclear threshold and find opportunities to fight a war under nuclear overhang. Similarly, Indian leadership has repeatedly stated that Operation Sindoor is not over yet.

Astra (BVR AAM)

Astra is an all-weather Beyond Visual Range (BVR) Air-to-Air Missile (AAM), which can precisely target up to 110 km. Astra AAM incorporates the Ku-band seekers, which have replaced the Russian 9B-1103m X-band seeker. This allows seekers to achieve higher resolution using smaller antennas, thus improving performance. Similarly, the missile is 3.57 meters long, making it compatible with Su-30 MKI, Mirage 2000, and Tejas. Furthermore, it is retrofitted with ramjet engines to enable high kinetic performance, allowing it to engage highly maneuvering targets at ranges under 110 km.

Extended Trajectory-Long Duration Hypersonic Cruise Missile

On 14 July 2025, it is reported that DRDO conducted a test of the Extended Trajectory Long Duration Hypersonic Cruise Missile (ET-LDHCM) under the classified Project Vishnu. While no official specifications have been confirmed, sources claim that it is powered by a scramjet (air-breathing) engine and can reach speeds of up to Mach 8, with a range of around 1,500 km. Furthermore, it can carry payloads of both conventional and nuclear warheads weighing up to 1,000-2,000 kg. The HCM can be launched from land, sea, or air platforms. Its high speed, low-altitude flight, and maneuverability make it very hard to detect and intercept.

Akash Prime

Akash Prime is an advanced variant of the surface-to-air missile (SAM) system, designed for all weather and operating at high altitude above 4500 meters, retrofitted with an advanced Radio Frequency (RF) seeker. Additionally, a dual-propulsion system and a more sophisticated RF seeker and guidance system have been integrated into this missile. The SAM is integrated with a ramjet-rocket propulsion system, which allows maneuverability and high-speed targeting at high altitudes. The missile has an effective interception range up to 25-30km and can engage targets up to an altitude of 20 km. It is supposed to be utilized against aerial threats,

such as cruise missiles and unmanned aerial vehicles. This SAM is indigenously designed and is supposed to provide defence against aerial threats.

Prithvi-II

Prithvi II is a short-range ballistic missile (SRBM) with a range up to 250-350km. The missile is a single-staged, liquid-fueled missile and requires on-site fueling before launching. This can be launched through TELV (Transporter Erector Launch Vehicle). The guidance system has been advanced with an inertial navigation system (INS), reducing the Circular Error Probable (CEP) to less than 40 meters. TELV and lowering CEP ensure the survivability and precision of this Prithvi II.

Agni-I

Agni I is also an SRBM, with a range up to 700-1200 km, which is also a single-staged missile but uses solid fuel. The missile can possibly canisterized and can be launched rapidly during a crisis through TELV. It is capable of carrying nuclear as well as conventional warheads. The propulsion system provides a rapid boost, which is enough to maneuver the interceptors and the defence system. Agni I is retrofitted with advanced RLG-INS (Ring Laser Gyroscopes-Inertial Navigation System), which enables the missiles' post-thrust navigation during unpowered midcourse and terminal trajectory. Thus, reducing the CEP up to 25-40 meters.

ULPGM-V3

On July 25, 2025, DRDO successfully demonstrated the test launch of the Advanced Unmanned Aerial Vehicle Launched Precision Guided Missile-V3. It is an air-to-surface capability and can be launched using UAV systems. The ULPGM is equipped with day and night capabilities and has a two-way data link to support pre-launch and post-launch operational updates. It is equipped with infrared imaging capabilities to enable night operations. The range is between 2.5 km to 4km. Similarly, it is equipped with three warhead options: Anti-armour, where it uses Rolled Homogenous Armour (RHA) and Explosive Reactive Armour (ERA). Secondly, Penetration-cum blast warhead to perform anti-bunker operations. Third, a pre-fragmentation warhead combined with airbursts or a proximity fuze to destroy the target at optimum height for maximum area effect.

Pralay

Pralay is a surface-to-surface, single-stage, solid-propellant quasi-ballistic missile with an estimated range of 150–500 km and a conventional payload capacity of 350–700 kg. Its key features include a depressed trajectory and terminal maneuverability, which complicate interception and enhance survivability against missile-defense systems. The CEP is approximately 10 meters, indicating the missile's accuracy. Furthermore, the missile is canisterized, which uses solid propellant for its launching, which shows its ability to rapidly launch during a crisis.

Agni-V

Agni-V is a three-stage, solid-fuel, road-mobile, canisterized Intercontinental Ballistic Missile (ICBM) with an estimated range between 5000-8000 km and a payload capacity of around 1,500 kg. Recent tests and retrofits have focused on upgraded avionics and a Ring-Laser-Gyro INS, along with improved post-boost and terminal guidance. Trials validated re-entry vehicle performance and the integration of decoys/penetration aids, indicating potential for future MIRV capability. The canisterization provides operational readiness and rapid responses.

Agni Prime (Agni-P)

Agni Prime is a new-generation, advanced medium-range ballistic missile (MRBM) intended to replace the Agni-I and Agni-II missiles. It is a two-stage, solid-fueled, canister-launched missile with a range of 1,000 to 2,000 kilometers. Its most significant technical advancements include a new composite rocket motor casing for weight reduction, a maneuverable re-entry vehicle (MaRV) for enhanced penetration against anti-ballistic missile systems, and improved propellants for a shorter boost phase. Equipped with indigenous ring-laser gyroscopes and satellite-based navigation, it offers significantly higher accuracy, reliability, and a faster response time, enabling the rapid launch. One of the significant characteristics of this missile is that it is a rail-based mobile launch system, which ensures stealth and survivability. India is the fifth country in the world to have deployed a rail-based system; China, North Korea, the US, and the Soviet Union have already implemented rail-based systems. However, the Soviet Union later retired its rail-based system.

Conclusion

India's intense missile testing post-Pahalgam is a dangerous and irresponsible behavior. Instead of encouraging confidence-building measures and dialogue, India's actions are pushing the region toward a crisis and an arms race, ultimately leading to strategic instability in South Asia. The rapid increase following the Pahalgam incident and the four-day conflict is worrisome. Repeated testing and revalidation of missiles, along with air-defense systems, suggest that India may be exploring counterforce first-strike options, even while claiming a No-First Use (NFU) policy. This is destabilizing because it forces the adversary into a "use-it-or-lose-it" situation. Pakistan, however, is not caught in such a dilemma; it has the capacity and ability to respond to changing threats. Still, during the "fog of war," even a small mistake could accidentally escalate the situation, with disastrous consequences.

Therefore, this fact sheet includes the technical parameters of missiles tested since the May 2025 conflict. Additionally, it details the characteristics and specifications of these tested missiles, explaining how they pose a threat to strategic stability. Pakistan, on its part, gave a befitting response to Indian misadventure through its Quid Pro Quo Plus strategy, giving a very responsible, proportionate, and mature responseThe following table presents a detailed account of India's missile testing activity since the May 2025 India-Pakistan conflict.

Link: ***https://ciss.org.pk/indian-missile-expedition-post-may-2025-crisis/***

Strategic Blocs and the Balancing Acts in the Emerging Global Order

Shawana Sohail

The contemporary world is undergoing an excessive change shaped by a single superpower, now changed by the automation of different centres of influence and competition. The Shanghai Cooperation Organisation (SCO) and the BRICS (Brazil, Russia, India, China and South Africa) increase the confidence of this shift and strategic collaboration between leaders who want subsequent alternatives to the Western-led global order. In a recent meeting, XI Jinping, along with Vladimir Putin and Kim Jong, suggested a detailed assertion of these shifts. The three leaders pointed out the need for a new governance framework that questions the old structure.

The SCO focuses on security, counter terrorism and economic collaborations by promoting multipolarity through closer trade, political and cultural ties. Moreover, the agenda of the BRICS is to reform global governance, increase economic and financial cooperation by creating new, fairer institutions and a more balanced world order.

Now the world is moving away from the US; its allies, like South Korea, are doubting its security structure. A survey shows that 70 % of South Koreans want their own nuclear weapons. They fear that Washington will not risk their own country to defend them against North Korea. At the same time, the tough immigration rules, like cancelling visas and deportations, make the students and workers avoid the country, which harms its global reputation.

These transformations show the rise of multipolarity, and the SCO has evolved into an organisation that not only works for the regional stability but also for the strategic interests of both China and Russia. BRICS is now focused on counterbalancing the West, which was once majorly used for financial cooperation. Such moves show frustration with already existing institutions such as the World Bank and the IMF, which are usually influenced by the West.

Amidst this evolving landscape, India is attempting to garner the support of both blocs. India, after a strategic partnership with Washington, has increased its collaboration with Russia and China. Through economic cooperation, it maintains a useful relationship with China. For Example, China removes the export restrictions on fertilisers, rare earth magnets and tunnel boring machines, which help India to strengthen their industrial and infrastructure development. Through this, India tries to maximise its national autonomy whilst diversifying its foreign policy. India's involvement in the SCO and the BRICS, hence, points out India's interest in benefiting from the Western and non-Western collaboration. Now the West is realising that India, under the defence and technologies partnership with the US, also uses non-Western powers for their strategic interest, like buying crude oil from Russia. As a result of this, the US imposed 25% tariffs on India over claims of exploitation.

The alteration of the world order is not an analytical debate about institutions, but it has implications for security, economic developments and regional stability. The countries which

are located at the crossroads of such rivalries, a multipolar system presents both opportunities and the risks to them. On the one hand, the smaller states get opportunities to build partnerships with major power countries. For instance, they can get cooperative deals regarding energy, defence collaboration and infrastructure projects. On the other hand, strategic management becomes difficult for such smaller countries because of growing rivalries between different blocs, as relying too much on one side can cause serious costs. For example, Islamabad has gained investment via CPEC under China's Belt and Road Initiative, but it is also difficult for Pakistan to maintain good relations with the US because of the US-China rivalry.

Washington's Indo-Pacific strategy is to counterbalance Beijing's influence. For instance, the states involved in the Quadrilateral Security Dialogue (US, India, Japan and Australia) are compelled by the West not to be part of China's Belt and Road Initiative (BRI). Other regional players which are managed by the Chinese economic prospects are also careful of Beijing's increasing economic influence. For example, Indonesia and Kazakhstan have greatly benefited from the China-led BRI Initiative. Indonesia alone received USD 9.3 billion in 2024 for the improvement of its trade, infrastructure projects, and to reduce poverty. In a multipolar system, it is difficult to balance security along with economic responsibilities.

The importance of both organisations, the SCO and the BRICS, reflects the desire to opt for an alternative world governance which is based on equality. Xi Jinping said in a recent summit that, "We should advocate for equal and orderly multipolarisation of the world, open economic globalisation and promote a more just and equitable governance system." In the past few years, both organisations have started engaging new people and enhancing their global prestige. The BRICS countries are initiating de-dollarisation by using alternative currencies to the US Dollar, showing their effort for an equitable and accessible economic order. Moreover, the SCO has initiated joint military exercises and counterterrorism efforts to maintain regional stability. This shows an image of regional unity, and such trends show a constant realignment away from the West

The endurance of the SCO and BRICS mechanisms cannot be achieved without confronting the challenges. For instance, within the SCO and the BRICS, many questions arise about their endurance and cohesion. Moreover, the conflicting national interests of member states could destroy the ability to act in an integrated manner. For instance, the relationship of India with China is under strain under the framework of the BRICS and the SCO. Similarly, India hijacks the SCO platform with an attempt to isolate malign Pakistan. For example, at the 2025 SCO Summit, India refused to sign the joint statement, saying it supported Pakistan.

Amidst the transition of the world from unipolarity to multipolarity, states are widening their foreign policy choices and reducing their dependency on one bloc. Through collaborations, they engage in multiple economic modernisations. But they also demand diplomatic flexibility to manage great powers' expectations, especially during the Ukraine-Russia conflict. When the competition intensifies, the chances of escalation of conflict to the whole region and beyond increase. The US has created blocs as per its latest National Security Strategy (NSS) through QUAD and AUKUS. Such polices and alignments increase the risk of regional tensions. In comparison, the stability of bipolar and multipolar conflict observed in the Cold War is defined

by the lack of established rules that escalate tensions and their potential risks. The fragmentation of the post-Cold War world order is an important feature of the 21st century. SCO and the BRICS show the interest of non-Western states in establishing institutions of their own interests. The multipolarity gives space for new constraints for the medium and small states, but the main challenge is to turn fragmentation into an opportunity by protecting sovereignty. In this emerging world order, the flexibility in diplomacy and strategy will determine which states face restrictions and gain advantages.

Link: ***https://cscr.pk/explore/themes/politics-governance/strategic-blocs-and-the-balancing-acts-in-the-emerging-global-order/***

Dual-Use Missile Systems and May 2025 Crisis: Learning the Right Lessons

Abdul Moiz Khan

A recent Wall Street Journal report highlighted that during the recent May 2025 crisis between India and Pakistan, the United States was fearful of the escalation of conflict to a nuclear level because of the use of a dual-capable BrahMos missile by India. Similarly, a senior spokesperson of the Pakistan Government also commented that when India launched a BrahMos missile on Nur Khan airbase, the response time was very low, and it was difficult to predict whether the launched missile was nuclear tipped or not. This incident highlights the danger of a missile with dual-use capabilities and its implications for crisis stability and inadvertent escalation due to the shortening of decision-making windows. A major lesson from this conflict should be to take steps to resolve dual-use ambiguities by separating nuclear and conventional missile roles.

In the May 2025 crisis between India and Pakistan, many new thresholds were crossed, and for the first time, the two nuclear armed states were engaged in a direct military confrontation targeting deep into each other's territory. These developments set a dangerous precedent for regional stability because of the increasing fog of warfare. In an era of emerging technologies, where the entanglement between nuclear and conventional forces is increasing, any use of force, even at the lower echelon of the escalation ladder can lead to miscalculation and have drastic consequences.

Dual-use delivery systems that can be armed with either a conventional or a nuclear warhead are a particularly destabilizing development. In the case of South Asia, the issue becomes more pertinent because of the reduced timeframes to make decisions when an adversary launches an attack. In this context, the use of BrahMos, a dual-use nuclear capable missile led to serious concerns of escalation in Washington, which believes that the missile can carry both conventional and nuclear warheads. There are risk factors involved in using dual-use delivery vehicles in a conventional conflict between two nuclear weapon states.

Dual-Use Systems and Inadvertent Escalation

The use of dual-use missile systems during a conflict can put the other state in a 'use-it or lose-it dilemma' because of the inherent uncertainty of the payload attached. A state assuming the worst-case scenario can interpret a coming salvo of dual-capable missiles as a pre-emptive first strike rather than a conventional attack. Because of the short timeline of decision-making, this can force the other state to promptly respond with inadvertent use of nuclear capabilities.

Dual-Use Systems and Crisis Stability

Another important factor is the impact of these dual-capable missiles on the crisis stability in the context of South Asia. Crisis stability refers to the lack of incentives to strike first in a conflict. Increasing entanglement of nuclear and conventional capabilities is destabilizing as it can lead to confusion and attack on strategic assets through conventional means. Moreover, dual-use delivery systems can lead to misperception and miscalculation in a nuclearized environment. Conventional-nuclear entanglement is one of the major destabilizing factors in

the new nuclear age. To strengthen crisis stability, it is important to address the challenge posed by these dual-use systems. Doctrinal ambiguities are also a concerning factor in South Asia, especially because of the increasing perception in Pakistan that India has moved to a first-strike counterforce doctrine.

Untangling Conventional-Nuclear Forces

The Cuban Missile Crisis was an impetus for arms control talks between the United States and the USSR, as both states realized they were closer to a nuclear crisis than ever. Similarly, both India and Pakistan have an opportunity to learn the right lesson from this crisis and move forward towards risk reduction measures. Because of the inherent destabilizing factors associated with dual-use delivery systems, both India and Pakistan need to take steps to untangle their conventional and nuclear forces. For this purpose, both states can consider committing to a system under which nuclear command would not be used for conventional purposes and vice-versa. Pakistan has already declared clearly which of its missile systems are nuclear and which are only for conventional purposes. Transparency and clear communication between the two states during a crisis is extremely important, especially after the May 2025 crisis.

Another important step in this regard can be upgrading the pre-launch notification agreement for missile testing, which only includes ballistic missiles for now. Both cruise missiles and hypersonic missiles should also be made part of this arrangement. Moreover, conventional variants of those missiles that are under the control of strategic forces should not be developed. In this regard, India's decision to develop a conventional variant of Agni V Intercontinental Ballistic Missile (ICBM) is particularly concerning. Both states should avoid such developments for risk reduction purposes.

Moreover, already developed dual-use systems should be reconfigured into single use only and should be clearly communicated to the adversary that these systems are only for conventional or nuclear purposes. Another pertinent step in this regard could be for both states to develop separate command and control centers for clearly distinguishing between conventional forces and nuclear forces. Both India and Pakistan should also develop separate storage sites for their nuclear missile force and conventional missiles to reduce the entanglement of their forces. One of the right lessons for both states to learn from the recent May 2025 crisis is that the development and deployment of dual-use systems present a grave risk for regional security Therefore, the discussed risk reduction measures for de-entangling nuclear and conventional forces are necessary steps for decreasing the chances of inadvertent escalation between the two nuclear states.

Link: ***https://southasianvoices.org/sec-m-pk-r-dual-use-stability/***

History Revisited: Ideological Militarism from Berlin to New Delhi

Muhammad Kumail Mehdi

From the year 2014 onwards, the religious nationalist Bharatiya Janata Party (BJP) government in India has been fueling the construction of a military-industrial complex and importing the most modern weapons. One can claim that the Prime Minister of India, Narendra Modi, is sketching a scenario that is based on the joining together of civilizational nationalism and the manufacturing of arms. The combination of these two forces is encouraging the population to prepare for a total war, which would serve the political goals and be a great honor. This development is not an isolated case; instead, it is in line with the grand strategy of the Third Reich. Nazi Germany, especially during the period from 1914 to 1941, was engaged in a combination of war, along with the use of ideological fervour, which eventually led to World War 2. Today, New Delhi is moving towards a similar combination of arms and assertive nationalism to achieve its political goals of becoming a hegemon. The shift from restraint to pre-emption, doctrinal hardness, and aggressive posturing can be analyzed through the convergence of arms ideology, which threatens the stability of South Asia.

After 1914, Germany's strategic revolution can be understood within the broader relationship between state formation and warfare. More than the mechanized warfare, it was the product of a deeper fusion between ideological zeal and technological mastery. As Charles Tilly famously argued, war made states and states made war, suggesting that the administrative and coercive machinery of the modern state emerged from the imperatives of organised violence. Following the disillusionment of World War 1, German strategists sought to rebuild a unified practice of war that could reconcile the management of arms with the mobilization of national spirit. By the late 1930s, this dual evolution ensured that engineers optimised the tools of war, and while ideologues infused them with purpose and myths of supremacy. Motorised vehicles such as tanks, armored cars, and assault rifles were the means of a new era of technology and were even more so the symbols of this era. The entire process of combining the aspiration and technology, the passion and the accuracy, finally drove Germany into a catastrophic total war over the period of 1938 to 1941.

The military-industrial complex of India that is evolving under the leadership of PM Modi is akin to a state-driven quest for both strategic and economic freedom. The Atmanirbharta initiative, plus the enormous investment the government is making in defense production that covers everything from missile systems to drone technology, are all factors that together reinforce the national productive capacity. Moreover, defense exports and public-private partnerships have shown a remarkable increase that links industrialization with national pride. The rearmament policy of Germany in the interwar period, which depended on illegal industrial networks and foreign financing to set up rearmament, could be compared to the method employed in India.

The military modernization in India under PM Modi is not only a transition of the country to being politically centralized, technologically independent, and strategically aggressive. Prime Minister Modi's Indigenous schemes, such as the establishment of a DRDO-Research base and the production of missiles, Agni-5 and Agni Prime being the latest ones, confirm the will of the

defense industrial sector to reduce its reliance on foreign sources. Similarly, the Indian air and missile defense system is receiving a boost through its acquisition of sophisticated drone and radar technology from the US and Israel, Rafale fighters from France, and S-400 from Russia. The change from professional autonomy to strategic alignment with political power is reflected in the doctrinal changes that give importance to Integrated Theater Commands and the elevation of the Chief of Defense Staff. When all these evolutions are viewed together, they prepare New Delhi for a high-intensity conflict. The support of a unified nationalist vision for the BJP will come from all parts of society.

The mobilisation of a nation for an all-out war is a complex process. It requires mythmaking, war-memorization, and emotional rites to unite people in a moral community. For instance, in the interwar years, expansionist ideology, racial supremacy, and the idea of war as the will of the nation mobilised the German population. A similar thing can be said of India under Narendra Modi. By evoking stories of collective trauma, civilizational pride, and national regeneration as a moral and geopolitical need, it mobilises society. It has been slowly infiltrating the media, administration, educational institutions, and even the military since 2014. This will bring all facets of society together in support of a unified nationalist vision for the BJP. Strategically speaking, this consolidation communicates to its enemies a strong sense of national identity by projecting both internal strength and exterior resolve.

The military responses of New Delhi in 2016, 2019, and 2025 demonstrate the mutual reinforcement of military might and ideological conviction. Defense modernization is increasingly presented as evidence of the nation's recovery, while the political narrative of Hindutva turns military gains into an affirmation of the power of civilisation. More risk-taking and risk tolerance follow from this mutually reinforcing cycle of belief and competence. India under Narendra Modi seems unafraid to risk escalation with a nuclear-armed neighbour, even though Pakistan has responded to each of these crises with measured and determined reactions. A desire to employ an escalatory strategy is demonstrated by the post-Pahalgam modernization and more aggressive official statements.

India's current course threatens the security balance of South Asia, much like Germany's experience during the interwar period, when ideological fervour and technological ambition upset the European balance. To sum up, Narendra Modi's Indian strategy is like Nazi Germany. The intersection of military modernisation, arms manufacture, and ideology renews a menacing overture. It mobilises and radicalises the populace to become more involved in the pursuit of ideological objectives. Unlike the reverse, this connection demotes goals below the means, which Nazi Germany exemplified. Consequently, the ideological conviction and motivation of the planners interfere with the rational process of strategic planning, thus resulting in escalation and destabilization. Peace and stability in the South Asian region are further endangered by India's growing tolerance of risks and escalatory measures.

Link: ***https://ipi.org.pk/history-revisited-ideological-militarism-from-berlin-to-new-delhi/***

Trump-Putin Ukraine Peace Talks in Budapest: How a Comprehensive Peace Deal over Ukraine will Impact the Nuclear Non-Proliferation Regime?

Fakhar Alam

The protracted Ukraine crisis has, at one point, created severe challenges for the global security architecture; on the other hand, it has caused unprecedented damage to the nuclear Non-Proliferation Regime (NPR). Prominently, this crisis has reinforced the perception among non-nuclear-weapon states (NNWS) that possessing nuclear weapons is the only reliable means of ensuring ultimate national security. This crisis has led to the failure to achieve consensus at the NPT Review Conference (RevCon) 2022. Simultaneously, during these three and a half years of continuous fighting over Ukraine, the safety and security of nuclear power plants (NPPs) in the conflict zone were undermined many times. Likewise, the only intact bilateral arms control treaty between the United States (US) and Russia, the New Strategic Arms Reduction Treaty (START), has been put on hold due to this crisis. However, President Trump and President Putin are again going to meet in Budapest for peace talks over Ukraine. During their August Alaska summit, both heads of state pledged to extract a comprehensive peace deal instead of a temporary ceasefire agreement. The following article explores what if President Trump and President Putin succeed in extracting a comprehensive peace deal over Ukraine, how it will affect the NPR.

First and foremost, the Ukraine crisis has recalibrated the importance of indigenous nuclear weapons capability and undermined the credibility of Negative Security Assurances (NSA). In 1994, under the Budapest Memorandum, Russia, along with the US and the United Kingdom (UK), committed through a political assurance that they would not use or threaten to use force against Ukraine, including the non-use of nuclear weapons. In exchange, Ukraine acceded NPT as an NNWS and relinquished the nuclear weapons that it inherited from the Soviet Union. However, the Russian invasion of Ukraine and repeated threats of using nuclear weapons against Ukraine have shattered the credibility of the assurances.

Moreover, the Ukraine crisis has led to a debate about what if Ukraine had an indigenous nuclear weapons capability, could Russia have thought of invading it? Right after the attack, countries like South Korea openly started considering an indigenous nuclear weapons capability for ultimate security. Therefore, if a peace deal is inked backed by credible security guarantees for Ukraine, it could restore some faith in assurances given by nuclear weapons states (NWS) to NNWS; however, the Ukraine precedent has already weakened the normative power of NSA as a nonproliferation tool, compelling NNWS to question whether political assurance alone can substitute nuclear deterrence.

Simultaneously, during these more than three and a half years of the Ukraine crisis, the security and safety of NPPs situated in or near the conflict zone were alarmingly undermined more than 15 times. Some of these attacks even resulted in the shutdown of the cooling systems of NPPs, thereby risking a major nuclear catastrophe. Particularly, the Zaporizhzhia power plant alone has faced six major incidents, including heavy shelling and drone strikes, highlighting the vulnerability of civilian nuclear infrastructure in wartime. And the threat of another major attack on any of the NPP situated in or near to conflict zone is still there. However, a peace deal

with explicit conditions for the safety and security of NPP will not only stop direct attacks on the power plants; it will improve the currently deteriorated situation of such plants, in which the International Atomic Energy Agency (IAEA) representatives and nuclear scientists are working. At the same time, under the peace deal, the mutually agreed-upon conditions regarding the safety and security of NPP in or near the conflict zone would hold a normative value for the rest of the world and could assist in avoiding such a situation in future crisis.

Similarly, the 2022 NPT RevCon failed to achieve a consensus because Russia blocked the final document, which raised serious concerns regarding the safety and security of NPP in the conflict zone. The final document produced after consensus at the NPT RevCon holds political and normative weight as it reflects the unanimous consensus of NPT signatory states regarding the future steps to strengthen the NPT. Now, the next RevCon is scheduled for 2026. If the US and Russia are successful in having a comprehensive peace deal, then it would increase the probability of having a consensus in RevCon 2026, because one of the reasons that led to the failure in achieving consensus in earlier RevCon would not be there.

Furthermore, US-Russia relations and, particularly, bilateral arms control have been severely impacted by the situation in Ukraine. Right after this crisis erupted, the New START, the only intact arms control agreement between the US and Russia, was suspended. So far, both sides are claiming that they are adhering to the promised treaty limits. However, neither side is allowing verification inspection while both sides are claiming the other side is not adhering to the treaty's limit. Thus, the threat of a renewed arms race between the US and Russia looms there. Moreover, this treaty is also set to expire in 2026, thereby raising further concerns regarding the future of US-Russia arms control. A peace deal, therefore, will not only improve the US-Russia relations; instead, this would provide an opportunity for the Cold War rivals to work on bilateral arms control

Moreover, the threat of renewed nuclear weapons testing has also grown during the Ukraine crisis. Russia's withdrawal from the ratification of the Comprehensive Nuclear-Test-Ban Treaty (CTBT), coupled with debates in the US over the future of its own testing moratorium, has heightened uncertainty. If the current situation prevails and any state, either the US or Russia, goes for nuclear testing, the other will also follow suit. And this situation will provide a window of opportunity for other nuclear-weapon states, which are eagerly waiting for nuclear weapons testing to validate their advanced systems and new designs. This might even result in a chain reaction of nuclear testing around the globe. Therefore, if a peace deal is inked, it could preserve the global norm against nuclear weapons testing. So far, all the objectives of the NPR, including preventing the spread of nuclear weapons through different barging tools, assisting NNWS in peaceful nuclear activities, elevating safety and security standards of NPPs, establishing a norm against nuclear weapons testing and promoting arms control, have been unprecedentedly challenged during the Ukraine crisis. Therefore, if the US and Russia are successful at devising an inclusive and comprehensive peace agreement, the further deterioration of the NPR could be avoided.

Link: ***https://moderndiplomacy.eu/2025/10/21/trump-and-putin-in-budapest-can-a-ukraine-peace-deal-redefine-the-future-of-nuclear-non-proliferation/***

Why CERN Should Make Pakistan a Full Member Now

Anam Murad Khan

Recently, the CERN (Conseil européen pour la Recherche nucléaire) delegation visited Pakistan to assess its performance as an Associate Member. This visit marked something more than a scientific venture. For Pakistan, it was a recognition of its nuclear dignity, and for the world, it was a big question mark on the rigid, exclusionary practices of the outdated post-Cold War era nuclear order. Can this rigidity prevail in this era of scientific advancements requiring equitable cooperation?

The core issue is Pakistan's membership status at CERN. It is a test of whether global scientific institutions, beyond treaties like the NPT, can recognize countries on merit and not politics. Pakistan's globally recognized nuclear safety and security architecture suggests that its exclusion stems from structural biases rather than lack of capability, experience or commitment. Henceforth, the visit to CERN is much more than a scientific venture. It is rather a sign that the country's credentials place it on high merit to be included in the world's leading hub of science and technology.

The relationship of Pakistan and CERN dates back a decade of consistent partnership. After becoming an associate member in 2015, the country took part in the groundbreaking enterprises led by the European Nuclear Agency, CERN. Pakistani engineers and scientists played an integral role in the development of one of the humanity's most ambitious projects, the Large Hadron Collider (LHC). The collaborations involved Pakistan's iconic institutions of science and technology, such as the Pakistan Institute of Nuclear Science and Technology (PINSTECH) and the National Center for Physics (NCP).

This visit marks that the contribution is not peripheral. The three dividends yielded by the associate membership of the country: students, engineers, and scientists, proved to be valuable assets for CERN. Where it gained access to the cutting-edge global programs of CERN, Pakistan contributed back with its skilled technical force. Now arises the point whether these half-measures gained by associate membership of CERN do justice to the scale of this collaboration. The case rests not only upon the scientific contributions but also upon the technical merits and credibility of Pakistan's nuclear infrastructure. The country's nuclear program has long been subject to misperceptions, nevertheless, today this narrative has become redundant. Pakistan has been a responsible nuclear power which also trains the IAEA member states regarding nuclear safety and security. Furthermore, the country was elected as a member of the IAEA board of governors for the 21st time in 2023. Election to one of the most influential bodies of the IAEA is not automatic, but a testament to the intentional confidence to contribute constructively.

Last year, Director General IAEA Mariano Rafael Grossi publicly praised the nuclear infrastructure of Pakistan upon his visit. He also highlighted the country's contribution to the peaceful application of nuclear technologies. DG IAEA commended the vast expansion of Pakistan's utilization of nuclear energy and techniques for health, agriculture, and industries,

to name a few. This is a staunch validation that the nuclear infrastructure of Pakistan is a responsible architecture, not a rogue outlier.

Besides governance, these achievements speak volumes about Pakistan's peaceful nuclear contribution. Pakistan hosts four collaborating centers of the IAEA that are the National Institute for Safety and Security (NISAS), the Nuclear Research and Development Center at Pakistan Institute of Engineering and Applied Sciences (PIEAS), the National Institute for Agriculture and Biology (NIAB), and the Water Resource Management Center at PINSTECH. This reality is often neglected in the Western discourse that Pakistan's civil nuclear program is integrally involved in the global scientific and development initiatives.

The strategic significance of Pakistan's full membership of CERN comes into play here. From a long time, Pakistan has been excluded from the incorporation into the nuclear governance institutions that are directly or indirectly controlled by the NPT-led archaic criterion. The country's membership of nuclear export cartels including the Nuclear Suppliers' Group (NSG), were also selectively judged by this criterion.

CERN's mission is an unbiased pursuit of fundamental science. Pakistan's scientific ability and institutional responsibility make its case for full membership one, based on merit, not geopolitics. Whereas its exclusion in the global nuclear order highlights politics, not scientific criteria. By granting full CERN membership to Pakistan, an encouraging precedent can be set that the global nuclear science and technology for peaceful purposes functions on merit and not Cold War-era structural hierarchies. Eventually, this will strengthen the legitimacy of international science and technology. Being a defining moment, this membership has global implications as well. At this time of multipolarity and fragmentation, this science diplomacy can bridge regions. As CERN was formed during the Cold War to connect Europe, now its expansion to South Asia can connect the Global South which is usually overshadowed by nuclear rivalries.

For Pakistan, the benefits of this membership will be both material and symbolic. It will reflect that knowledge is a global common and for the welfare of humanity. Through strong institutional linkages, it can gain recognition and contribute more to the collective good. As for the world, it will send a strong message that science has the potential to outpace politics and that performance and merit are the sole determinants of benefits and inclusion. It is a moment to seize and prove that the world community can triumph over outdated hierarchies.

Link: ***https://www.atomicreporters.com/2025/10/guest-article-turning-the-page-time-for-cern-to-make-pakistan-a-full-member/***

The Evolution of India's Cold Start Doctrine: From Terrestrial to Aerial Domain

Murad Ali

India has started conducting its first ever a Cold Start drone and counter drone war exercise on 7th October 2025 to demonstrate the evolving posture of its conventional strike capability. The exercise is taking place at the military station on Babina (Uttar Pradesh) and Mhow (Madhya Pradesh). It is happening for the first time since the Operation Sindoor that India's Army, Navy and Air Force joined together in an integrated drone and counter-drone exercise. It sends a strategic signal to Pakistan regarding India's modernizing warfare strategy. This highlights that India is seeking alternative ways to engage Pakistan in the conventional domain. The shift from the terrestrial battlefield to airspace reflects India's consistent approach to engage Pakistan under the nuclear overhang. This doctrinal transition in India's warfare underscores the impact of Pakistan's nuclear deterrence, which has compelled India to modify its approach to conventional war. The drill focuses on evaluating the efficacy and loopholes in the current air defense capabilities. It also aims at assessing the operational readiness against the evolving aerial attacks.

India's Cold Start Doctrine (CSD) was first coined and adopted in 2004 against Pakistan. It aimed at shifting the conventional approach to war. It envisaged to utilize ground powers for several attacks, before the mobilization of Pakistan's forces. The CSD was envisioned by the Indian military to cause irreparable damage to Pakistan without escalating to nuclear war. Pakistan swift respond with tactical warhead carrying missile such as Nasr as well as its robust aerial capability made the Indian CSD obsolete. This time, India has adopted the strategy of CSD in aerial domain by executing unmanned AI-integrated, drones, hypersonic tools and electronic warfare against Pakistan, without crossing the nuclear threshold.

The cold start drones and counter-drone exercise of the Indian military is the biggest ever drone centric military drills. It deeply evaluates the Indian drones and counter drone system with a purpose to strengthen the air defense system and counter-unmanned-aerial system (UAS). The tri-service military debut, embodies a significant evolution in the Indian's warfare strategy. Industry partners, defense research wing, and academia, in addition to the armed forces, also partake in the drill. The "Cold Star signature" a military doctrine known for swift and limited operation against Pakistan, underlined swarm tactics, electronic warfare, and AI-collaborated drones. The exercise is anticipated to involve high-threat scenarios by projecting around 100 local and imported UAS platforms.

Chief of Integrated defense Staff (IDS), Air Marchal Ashutosh Dixit, stressed that India's future military doctrine is engrained in the vision of an integrated and layered defense system, the Sudarshan Chakra. Moreover, he reflected that anti-drone system will counter military targets as well as the criminal activities. The Sudarshan Chakra doctrine refers to the capability of countering drones, UAVs, space-based threats, and hypersonic missiles. It pursues to establish Air Defense System which is aimed at strengthening India's deterrence and offensive capabilities. This system will be the part of Multi-Layered Missile Defense System.

The mission Sudarshan Chakra was launched by the PM Modi during the event of India's 79th Independence Day. The Cold Start drone exercise is modeled on this evolving concept of modernized, tech-laden military combat system seeking to offend and defend against an enemy target with an unmanned artillery system. Cold Start upholds a transition from manpower military concepts to techno-laden ones, resonating global trends but is not tailored to South Asia's volatile security calculus, considering the delicate nuclear threshold. Drones or UAVs cannot change the calculus of limited wars, in case of South Asia, for a strong reason.

Whether India attacks Pakistan with terrestrial armored and artillery system, drone swarms, AI-integrated UASs, or electronic warfare, the escalation to nuclear war will still be determined by the scale of damage it inflicts on Pakistan. Pakistan's first use nuclear policy is guided by the extent of damages caused by the enemy's conventional attack. The mode of warfare does not modify or expand the nuclear threshold. India overlooks the reality that the nuclear threshold in South Asia cannot be shaped by the evolving military posture in pursuit of limited gain. Instead, it will generate crisis instability and miscalculation. India's continuous revision of its warfare doctrine, from the Sunderji, to Cold Start, and now to the Doctrine of Rapid and Short (DRS), reflects the efficacy of Pakistan full spectrum deterrence (FSD).

India's cold start drones and counter drone preparedness, illustrates its design to gain dominance across domains, bolstered by precision and ambiguity. General Anil Chauhan, India's Chief of Defense Staff (CSD), confidently adopted that Operation Sindoor had "created space" for conventional war under the nuclear threshold. India's military buildup demonstrates its readiness for another misadventure against Pakistan. However, if India convinces itself that nuclear weapons can be overlooked while playing limited war games, then South Asia would become the most possible flashpoint for the first nuclear war in the 21st century. Pakistan's doctrine of FSD is precisely framed to deter conventional as well as non-conventional attacks. Pakistan nuclear card will always be in play, whether Pakistan responds conventionally, or asymmetrically. Considering India's illusionary strategic behavior, the future is riskier than before. Operation Sindoor proved the fact that how quickly a crisis between India and Pakistan can escalate to nuclear exchange, despite proving the possibility of limited war.

Link: ***https://stratheia.com/indias-cold-start-doctrine-terrestrial-to-aerial-domain/***

Pakistan-Saudi Arabia Defence Pact and Gulf Security Responsibility

Syed Ali Abbas

On September 17, 2025, the Government of Pakistan and the Kingdom of Saudi Arabia signed the Strategic Mutual Defence Agreement (SMDA) in Riyadh that provides that an act of aggression against one of the states will be regarded as aggression against another state. The accord represents the largest codification of the Pakistan-Saudi defence relations to date. It is a significant reinforcement of a relationship that has been one of the pillars of Gulf security. As far as Islamabad is concerned, the agreement makes it a more significant participant in the Gulf security than an external actor and transforms decades of bilateral collaboration into a treaty mechanism.

Moreover, the Agreement is a larger regional response to the trend of security self-sufficiency, with the Middle Eastern states, especially the Gulf countries, becoming more and more responsible in their defence. This is a positive trend that can contribute to the burden-sharing policy that is encouraged by the Trump administration. In this respect, the SMDA demonstrates new rules of collective responsibility in the context of the recent security order in the Middle East. The involvement of Pakistan in this structure gives the country an important outside of South Asia and makes it a stabilizing partner in Gulf security and the wider region.

This is evident in recent regional developments. Gulf states are not stepping back from their security cooperation with the US, but rather diversifying their security options, as shown by the strengthening defence ties between Qatar and the United States, especially following the Israeli attack of September 2025 in Doha. Reports suggest KSA is interested in signing defence pact akin to the executive order Trump signed on Qatar, in upcoming meeting between Saudi Arabia's Crown Prince Mohammed bin Salman and US President Donald Trump. Riyadh's outreach to Islamabad, therefore, complements Doha's alignment with Washington, both indicating a regional trend of favouring overlapping, multi-source security arrangements instead of relying on a single guarantor.

Historical Continuity and Institutionalization

Pakistan-Saudi defence relations are longstanding. They began forming in the early to mid-1960s when Saudi Defence Minister Prince Sultan bin Abdulaziz signed a security cooperation agreement with Pakistan, which marked the start of Pakistani military advisors and trainers integrating into the Kingdom's military forces. It became much closer after the 1982 Defence Cooperation Agreement, which introduced Pakistani posting and defined a system of formal training courses, which led to the training of thousands of Saudi officers in Pakistani military institutions. This cooperation has been backed by actions, such as in the Gulf War in 1991, when Pakistani troops were deployed to secure strategic sites such as oil fields, religious holy places in Saudi Arabia, demonstrating the strength and credibility of the partnership during a crisis.

The Gulf Region and Regional Responsibility.

Moreover, land, air and sea interoperability have now become the norm due to bilateral exercises over the years. Counter-terror efforts and combined land operations have been the main elements of the Al-Samsam series, which was last held in 2024 at Muzaffargarh, and a naval exercise, Naseem al-Bahr, initiated in 1993, has been developed into a sea-air integration program. In early 2025, the fifteenth edition of this exercise involved live-fire and anti-surface warfare exercises in the North Arabian Sea. These engagements, in conjunction with the consistent presence of Pakistani military advisors, demonstrate that the security relationship between the two nations is well established. The SMDA further strengthens these relationships.

The justification of the SMDA is the fact that Gulf security is constantly recalibrated with regional actors getting more responsibility to provide their own defence as opposed to being dependent on others all the time. A lot of the discussion around the agreement has considered it as a hedge to diminishing American influence, without taking into account the larger paradigm shift in progress. The agreement can be regarded as a component of a localized burden-sharing model, which would strengthen collective deterrence by intra-regional cooperation.

Concerning Riyadh, the deal expands its strategic portfolio, which is not dependent on any power, but at the same time, it enhances its vision of becoming a leader in an independent and more autonomous Gulf security system. With Islamabad, it offers a chance to institutionalize its long-term relationship as a stabilizer of the region. Moreover, Pakistan's historic experience of Gulf defense participation, be it in terms of manpower contribution or training on counter-terrorism issues, has largely remained in its shadow. The SMDA is an appreciation of this contribution and at the same time makes certain that the partnership is founded on the basis of a treaty.

SMDA shows a wider trend in the region, focusing on multi-vector security cooperation. Other than the Saudi-Pak treaty, other regional mechanisms are also present, like joint Arab air defence, Red sea maritime task forces, GCC information platforms, and all these have shown that the regional security arrangements have become normal. In this respect, the SMDA also brings in a new aspect of coherence, linking the military capabilities of Pakistan to the security of the Gulf.

Charting a Horizon

The Pakistan-Saudi defence agreement is both continuity and change: continuity in institutionalizing a partnership that is established on decades of mutually trusting and successful relationships, and change in terms of the balance of power in the region. To Islamabad, it will mean that it is a credible security provider in the Muslim world and a state that can meet its defence requirements without depending on others. In the case of Riyadh, it will provide a reliable ally that has demonstrated operational discipline and professionalism, which will allow Saudi Arabia to realign its security platform and enhance its central contribution to the stability and security of the Gulf region.

The connotations are thus two-fold. At the strategic level, the agreement shows that regional security could be established on the basis of enhancing regional relationships. Conversely, it shows the readiness of Pakistan to act as a stabilizing power on the outside of its geographical borders and also balances its relations with Iran, Turkey, and the Gulf Cooperation Council (GCC) in general. It is notable that the Iranian President Masoud Pezeshkian supported the pact in his speech at UNGA. Adding to this, Ali Larijani, the Secretary of the Supreme National Security Council of Iran, also stated that Iran would support the deal and stated that the Pakistan-Saudi deal is a manifestation of the brotherhood spirit and Iran is happy that the accord would contribute to the collective security of the region. This marks the dawn of a comprehensive regional security system, which can be used as a vehicle of confidence-building, peace, and security in the region.

Link:*https://ciss.org.pk/pakistan-saudi-arabia-defense-pact-and-gulf-security-responsibility/*

Agni Prime; Unlocking the South Asian Crisis Instability

Muhammad Ali Baig

On September 24, 2025, following the North Korea, and Russia, India has launched its new missile force by testing Agni Prime from a rail-based mobile launcher. According to India's Defence Minister Rajnath Singh on X, "this successful flight test has put India in the group of 'select nations' having capabilities that have developed canisterised launch system from on the move rail network." Now, this development places India in the list with North Korea and Russia. With the recent consecutive missile tests and ongoing threats of continuation of Operation Sindoor by Indian military personnel and politicians – after the India's defeat in India-Pakistan four-day military confrontation in May 2025– have reignited fears of renewed Indian military escalation and adventurism in the region.

India's Defence Research and Development Organisation (DRDO) confirmed the Agni Prime test from a rail-based mobile launcher system. According to DRDO, the test was conducted in coordination with India's Strategic Forces Command (SFC). The missile was integrated into a modified rail boxcar equipped with an extendable platform designed to elevate the launcher above overhead electrical wires – a feature noted by several observers and critiques. This level of engineering shows India's intent to make its deterrent forces mobile, concealed, and survivable. The Agni-Prime also known as Agni-P is intended for a range between 1,000 and 2,000 kilometers approximately around 621 and 1,243 miles. DRDO stated that the missile is also deployable from road-mobile launchers. It remains unclear whether Agni-P will replace or supplement earlier Agni-series missiles such as Agni-I with a range of 700 kilometers, and Agni-II with a range of 2,000 kilometers. The rail-based version comprises a containerized Agni-P missile, an autonomous launch capability, advance communication systems, and unrevealed safety characteristics. Though this technology also increased the complexity of tracking and verification.

For clarity, India is not the first country to test a missile from a rail-base launcher. In the midst of Cold War, the USSR tested a rail-based intercontinental ballistic missile (ICBM), known as the RT-23 Molodets. Russia later sought to revive this technology through the Barguzin project but eventually abandoned it to concentrate on the Avangard hypersonic missile. Later, North Korea introduced the "railway mobile missile system," in September 2021 with India now joining the list of states pursuing rail-based missile systems.

In a glance, the strategic implications of the rail-based launcher will have a huge strategic turf for India i.e. roughly 40,000 miles inside the country. This will allow missiles to be fired timely from anywhere inside the 2000 km radius on the railway tracks also by disguise it in regular passenger wagon. It may become difficult to identify, monitor and intercept for Pakistan such as in 11.2 km long tunnel of Pir Punjal in Indian administered Kashmir. The rail tunnels may provide shelters as bunkers for these missile launchers in the time of conflict. It will be harder to encounter them by increasing the survivability rate of these missiles. these features shorten decision time and increase the risk of escalation and miscalculation by putting the regional peace in threat. Additionally, the Agni-P can reach deep into Pakistan with a maximum range

of about 2,000 kilometers. Rail mobility multiplies the number of possible launch positions and targets inside Pakistan.

On the contrary, Pakistan has always emphasized restraint and shown a responsible management of its conventional and nuclear forces. For example, the recent introduction of the Pakistan's Army Rocket Force Command is a step toward clearer force structure and mission separation. That command aims to separate conventional and nuclear roles by reducing ambiguity. This could eliminate chances of miscalculations or crisis escalations in the region.

However, India has, a mixed record on technology, deployment and safety. Incidents such as the BrahMos malfunction in March 2022 and other military accidents have shown risks in deployment and training. Also, India's recent stress on compellence by using show of force to coerce its neighbor's behavior results in regional and global tension. Compellence strategies can break down deterrence logic if applied recklessly. The result is peril for Pakistan, the neighborhood, and the wider international community. For stability, states must choose restraint and clarity over coercion. In fact, now, India fabricates continuation of Operation Sindoor for future wars. The test of Agni-P is one of the ring of chain in the recent chain of missile tests. Defence Minister Singh's statements signal faster tri-service integration, real-time Command, Control, Computer, Communications, Intelligence, Surveillance and Reconnaissance (C4ISR) by raising the risk of military escalation for Pakistan. For Pakistan, Indian military technological advancements such as Agni-P create shortening decision cycles and increasing the speed of Indian coercive options. Such advancements are merely threat of crisis escalation in the near future.

In conclusion, the Agni-P test mirrors India's rising interest of advanced delivery systems while underestimating the fragile geographical realities and security conditions of South Asia. The timing of the Agni Prime test – just months after the conflict – suggests a threat of incoming Indian hostility. In such circumstances, political and diplomatic engagements can reduce tensions. At the same time, confidence-building measures are essential to cut the inadvertent escalation and risk of misperception. A few practical measures would reduce entanglement risks. First, India and Pakistan could negotiate a mutual pledge to avoid offensive strikes against clearly identified strategic bases in peacetime avoiding civilian casualties. Second, both sides could exchange technical data about launcher types, range bands, and payload options. Such transparency would reduce dangerous ambiguity in the future. Third, India could also introduce a distinct command which will separate nuclear and conventional systems. Clear separation makes the entanglement of conventional and nuclear systems less likely and thus lowers the chance of inadvertent escalation.

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