

Indian Cruise Missile Misadventure: Malfunction or Malafide Intentions?

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Abstract

On March 9, an Indian BrahMos class, nuclear capable, a supersonic cruise missile with no warheads, landed in Mian Channu, around 80 miles inside Pakistan's territory. Pakistan, in turn, rationally responded to the incident by de-escalating the situation. The Indian missile fire in Pakistan's territory has brought to the spotlight a set of puzzling questions: Was it an accidental or unauthorized fire or a deliberate act to test the readiness of Pakistan's missile defense systems? Why did India fail to notify Pakistan of this missile launch immediately? If it was an accidental launch then does it not undermine accuracy of Indian BrahMos class missiles, credibility of its Command and Control (C2) system, and international aviation and safety protocols? What does Pakistan's restraint mean? How has this cruise missile fire led to creating renewed escalation risks? The study ponders on the above questions, offering some guiding posts for both the nuclear weapon states on risk management and avoidance of future

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misadventures, unauthorized use, or malfunctions. The study's main argument is that launching the BrahMos cruise missile into Pakistan's territory from India serves as a reminder of renewed threats to strategic stability in South Asia and points toward nuclear risks associated with the Indian nuclear program. The study concludes that whether the incident was an accidental, unauthorized or deliberate incursion, by all dimensions, it questions India's irresponsible behavior. Further, the study offers a mechanism for both the states to renew/initiate new agreements and make certain compromises to implement risk reduction measures to avoid such misadventures, thus evading misperceptions, accidents, and inadvertent escalation.

Keywords: Nuclear South Asia, Missile Launch, Crisis Instability, Risks Reduction, Malfunction, Unauthorized or Advertent Use.

Introduction

The world missed one of the significant events amidst the Ukrainian conflict³ which could have led to serious crisis in the nuclear armed South Asian region. On March 9, an Indian BrahMos class, nuclear capable, supersonic cruise missile, while carrying no warheads, landed in Mian Channu, around 80 miles deep inside Pakistan's territory.⁴ The Indian missile launch of the BrahMos missile received restrained

³ See "Global Conflict Tracker," *Council on Foreign Relations*, April 4, 2022, Available at: <https://www.cfr.org/global-conflict-tracker/conflict/conflict-ukraine> (Accessed on April 13, 2022).

⁴ Daryl G. Kimball, "India: Accidentally Fires Missile into Pakistan," *Arms Control*, April 1, 2022, Available at: <https://www.armscontrol.org/act/2022-04/news/india-accidentally-fires-missile-into-pakistan>. (Accessed on April 13, 2022).

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response from Pakistan. India failed to notify Pakistan immediately after the launch of this projectile. The Directorate Generals of Military Operations (DGMO) hotlines of the two countries were not used. India used no military, diplomatic or political channel to notify Pakistan of this fire until Pakistan's Inter-Services Public Relations (ISPR) held a public press conference asking India for an explanation of the incident.⁵ Regardless of whether it was a malfunction or guided by malafide intentions to test Pakistan's readiness, the Indian missile landing in Pakistan's territory led to a flagrant violation of the latter's air space, United Nations (UN) Charter, international aviation rules, and safety protocols.⁶ In addition, the missile launch carried a huge escalation potential between two nuclear weapon states, endangered human life and property besides risking the broader regional peace and stability.

The Indian missile launch in Pakistan's territory raises a set of spontaneous questions that demand transparent deliberation: Was it Indian advertent action to test the readiness of Pakistan's missile defense systems? Was it an accidental or unauthorized launch? Why did India fail to notify Pakistan of this missile launch immediately? If it was an accidental launch then does it not undermine the accuracy of Indian BrahMos class missiles, credibility of its C2 system, and international aviation and safety protocols? What does Pakistan's restraint mean? How has this cruise missile launch led to creating renewed escalation risks? The study's main argument is that launching the BrahMos cruise missile into Pakistan's territory from India serves as a reminder of renewed threats to strategic stability in South Asia and points toward nuclear risks associated with the Indian nuclear program. The study answers the above questions, offering some learning

⁵ See "India to Explain What Happened in Mian Channu," Says DG ISPR after Indian Projectile Falls in Pakistan," *Dawn*, March 10, 2022.

⁶ See "Rules of International Civil Aviation Organization (ICAO)," *ICAO*, Available at: <https://www.icao.int/about-icao/Pages/default.aspx> (Accessed on April 13, 2022).

outcomes for both the nuclear-weapon states to manage risks and avoid such recurrence in the future.

The study adopts qualitative and explanatory approaches while adhering to both primary and secondary data sources to build rational analysis. Primary data mainly includes in-depth interviews with experts in the relevant field and a range of memoirs, diplomatic documents, and speeches. Secondary data is drawn from the existing body of knowledge, covering sources such as research, newspaper articles, and books to enrich and broaden the scope of analysis. The thematic analysis technique analyzes the data to understand the phenomenon under study comprehensively. Lastly, deductive reasoning is employed to analyze the Indian cruise missile misadventure. Further, three different scenarios are developed to build a comprehensive understanding of the phenomenon, thereby devising a mechanism to ensure peace and stability in the nuclearized South Asia.

Conceptual Framework

Deterrence is generally understood as an ability to dissuade a state from embarking upon a course of action prejudicial to one's vital security interests based on demonstrative capability. The nuclear deterrence theory, as propounded by Brodie,⁷ Which is grounded in political realism and enriches our thought process to comprehend the potential character of nuclear weapons. Bernard Brodie propagated that the invention of the atomic bomb had fundamentally altered the nature of war, and a strategic revolution had occurred. Brodie rightly asserted, 'thus far, the chief purpose of our military establishment has been to win wars. From now on, its chief purpose must be to avert them. It can have almost no other useful purpose'.⁸ Here Brodie means that the

⁷ Bernard Brodie ed., *Absolute Weapons: Atomic Power and World Order*, (New York, Harcourt, Brace, 1946) ,76.

⁸ Ibid.

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possibility of 'destruction' inherent in the use of nuclear weapons has made victory unachievable but at the same time he taught us that through risks of retaliation, states could psychologically manipulate an adversary's mind. On a similar note, Robert J. Art contended that 'balance in the nuclear age is the power to hurt, not the power to defeat.'⁹ Thomas C. Shelling reminded us that 'victory is no longer a prerequisite for hurting the enemy,' which later modified and constrained states' behavior towards a more rational direction. The above notions contextualize what we now refer to as Deterrence Theory.¹⁰ Deterrence is generally understood as an ability to dissuade a state from embarking upon a course of action prejudicial to one's vital security interests based on demonstrative capability. Thomas Schelling, one of the master thinkers along with Herman Kahn¹¹ and Albert Wohlstetter, as well as Henry A. Kissinger, became fascinated with the complexities of nuclear strategy. In the Cold war era, the world experienced a constant fear of nuclear war between the United States (US) and Russia. Few scholars warned about the risks of inadvertent nuclear war between the US and Russia.¹²

Recently declassified documents suggest that the two Cold War rivals were dangerously near to initiating an inadvertent nuclear conflict in 1983. The Russian leaders supposedly misinterpreted North Atlantic Treaty Organization (NATO) military exercise reckoned as *Able Archer* and planned to carry out nuclear strikes against it.¹³ During the

⁹ Robert J., "Between Assured Destruction and Nuclear Victory: The Case for the 'Mad Plus' Posture," *Ethics*, Vol.95, No. 3, (April,1985), 497-516.

¹⁰ Patrick M.Morgan, *Deterrence Now* (Cambridge: Cambridge University Press, 2003), 8.

¹¹ See Herman Kahn, *On Escalation* (New York: Praeger, 1965), 36.

¹² Quoted in Anthony M. Barrett, "False Alarms, True Dangers? Current and Future Risks of Inadvertent U.S.-Russian Nuclear War," *RAND Corporation document PE-191-TSF, DOI 10* (2016).

¹³ See Nate Jones, Tom Blanton, and Lauren Harper, eds., "The 1983 War Scare Declassified and for Real, in National Security Archive Electronic Briefing Book No. 533, October 24, 2015, Available at: [https://nsarchive2.gwu.edu/nukevault/ebb533-The-Able-Archer-War-Scare-Declassified-PFIAB-Report-\(Accessed on April 13, 2022\). Released/#:~:text=Washington%20D.C.%2C%20October%2024%2C%202015,1983%20War%20Scare%20was%20real](https://nsarchive2.gwu.edu/nukevault/ebb533-The-Able-Archer-War-Scare-Declassified-PFIAB-Report-(Accessed%20on%20April%2013,%202022).Released/#:~:text=Washington%20D.C.%2C%20October%2024%2C%202015,1983%20War%20Scare%20was%20real) (Accessed on December 15, 2021).

Cold war era, nuclear risk reduction remained a top priority and continuous concern of the US and Russian leaders. Washington and Moscow put a considerable amount of effort into building a mechanism to prevent the use of nuclear weapons.¹⁴ Significantly, the US and Russia never indulged in direct confrontation with each other due to fear of the use of nuclear weapons. In his *Meteors, Mischief, and War*¹⁵ Schelling debated the notion of accidental war. For Schelling, decisions cause war, and accidents can trigger decisions. He gave remedies not just for preventing accidents but constraining decisions. In parallel, Herman Kahn, in his *On Escalation* offered lessons to limit a potential risk of war to a certain level through escalation control strategies maintaining a degree of uncertainty to make deterrence credible.¹⁶

Cold war thinkers focused on understanding the underlying reasons that had led to crises and the mechanisms to prevent such crises. They dedicated their attention to understanding the compromising process, as a degree of compromise can prevent or resolve conflicts.¹⁷ The two superpowers got past the brink of confrontation to enter an era of détente. US President Richard Nixon and Soviet leader Leonid Brezhnev pledged to limit their countries' offensive nuclear arsenal permanently. Thus, arms control

¹⁴ Michael Krepon, Chris Gagne, Henry L and Harinder Baweja, "Nuclear Risk Reduction: Is Cold War Experience Applicable to Southern Asia? The Stability-Instability Paradox: Nuclear Weapons and Brinkmanship in South Asia," *Stimson Center paper* 38 (2001), Available at: <https://www.stimson.org/2001/stability-instability-paradox-nuclear-weapons-and-brinkmanship-south-asia/> (Accessed on December 15, 2021).

¹⁵ See Schelling, T. *Meteors, Mischief, and War*, *Bulletin of the Atomic Scientists*, 16 (7), 1960.

¹⁶ See Kahn *On Escalation*.

¹⁷ "Address by Secretary of State Henry Kissinger," *Office of the Historian*, Available at: <https://history.state.gov/historicaldocuments/frus1969-76v38p1/d19>, (Accessed on April 2, 2022).

mechanisms, a negotiating toolkit, regulated some aspects of US and Soviet military capabilities or potential. These arrangements were applied to the location, amount, readiness, and types of military forces, weapons, and facilities to reduce war risks. They forged some form of cooperation or joint actions regarding their military programs. This is how deterrence stability was achieved and accidents prevented during the Cold War.

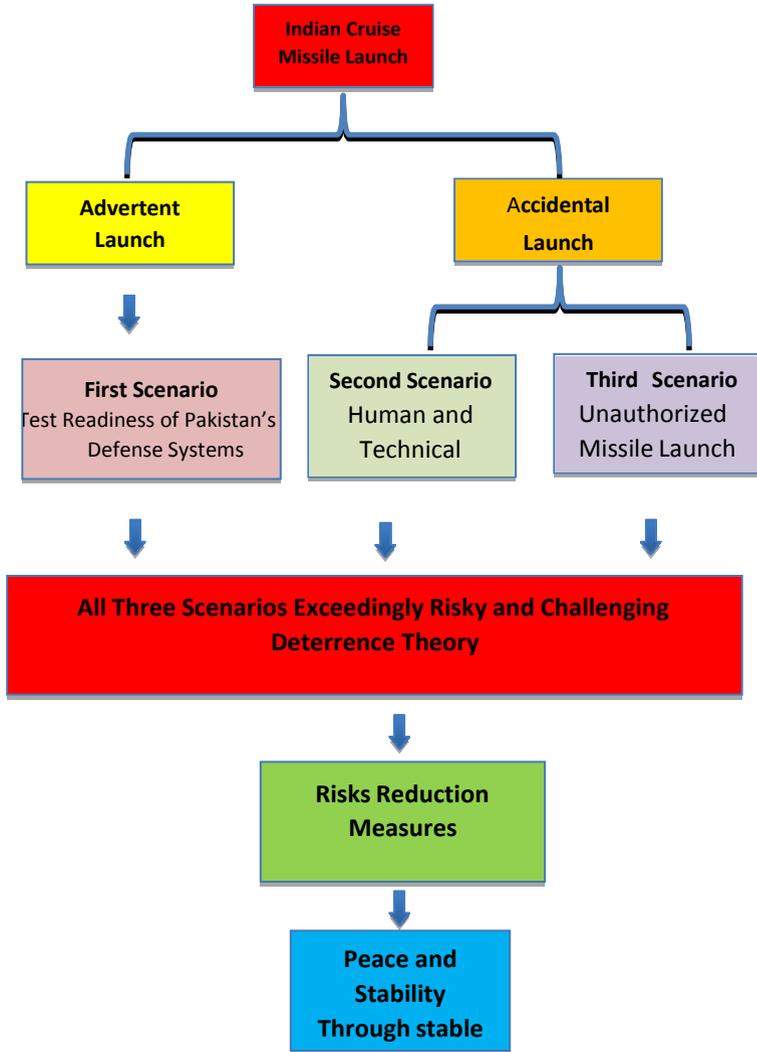
The lexicon of nuclear deterrence theory is not exactly applicable to India and Pakistan, where both rival countries, even after overt nuclearization, are found to be involved in fighting a limited war, sub-conventional warfare, and phenomena such as surgical strikes in the recent times. India is continuously modernizing its nuclear stockpiles and operationalizing a blossoming triad. India is on the road to developing cruise missiles at a faster rate. Cruise missiles have speed, precision, stealth capabilities, and multiple launch platforms, making them appropriate weapons for counterforce posture and preemptive strikes.¹⁸ Further, India's force modernization demands enhanced safety and security protocols to avoid accidents. Scott D. Sagan maintains that, at times, accidents occur despite best safety and security practices because of limitations.¹⁹ Nevertheless, India's opacity regarding safety and security issues is incompatible with its ambitious force modernization. Christopher Clary also highlighted his concerns about India's safety and security protocols.²⁰ India's recent missile fire indicates severe loopholes in the safety and security mechanism to

¹⁸ Kulsoom Belal, "Cruise Missiles in South Asia: Implications for Regional Strategic Stability," *Policy Perspectives*, Vol. 13, No. 1, (2016), 115, <https://doi.org/10.13169/polipers.13.1.0115> (Accessed on April 2, 2022).

¹⁹ See Scott Douglas Sagan, *The Limits of Safety, Organizations, Accidents and Nuclear Weapons* (Princeton University Press, 1995), 65.

²⁰ Christopher Clary, "India in Transition, Guarding the Nuclear Guardians," *Centre for Advanced Study of India*, July 15, 2013, Available at: <https://casi.sas.upenn.edu/iit/clary> (Accessed on April 2, 2022).

handle sophisticated new technologies. Further, the missile launch had all the potential to reach severe escalation, endangering peace and stability in the region.



Conceptual framework devised by the authors

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Keeping in view the nature of the study, this conceptual framework is devised to analyze the Indian cruise missile misadventure concerning three scenarios. Further, it laid out the strategy to mitigate the risk to ensure peace and stability in nuclear South Asia.

Indian Cruise Missile Launch - What happened?

Pakistan's ISPR, through a press briefing, revealed that an Indian 'supersonic missile,' which was not armed, had landed in Pakistan, thus hitting private property.²¹ Pakistan's Air Force stated that it had tracked the missile's flight path right from its launching site, Sirsa in Haryana, India. Subsequently, the missile altered track and maneuvered towards Pakistani territory while landing near Mian Channu after traveling around 80 miles inside Pakistan's territory.²² Pakistan circulated a map displaying missile track that remained airborne for less than seven minutes while it flew in the Pakistani airspace for 3 minutes and 44 seconds and traveled 124 km deep inside Pakistan's territory.²³



Source: Annotated map of the missile's flight path shared by Pakistani military officials

²¹ See "India to Explain what Happened in Mian Channu," says DG ISPR after Indian Projectile Falls in Pakistan,' *Dawn*, March 10, 2022.

²² Kamran Yousaf, "India Admits to 'Accidentally' Firing Missile into Pakistan," *The Express Tribune*, March 11, 2022.

²³ Matt Korda, "Flying Under The Radar: A Missile Accident in South Asia," *Federation of American Scientists*, April 4, 2022, Available at:

<https://fas.org/blogs/security/2022/04/flying-under-the-radar-a-missile-accident-in-south-asia/> (Accessed on April 8, 2022).

Pakistan's armed forces' spokesman highlighted the lethality of the missile incident and stated that the projectile has 'endangered many international and domestic flights in both Pakistani and Indian airspace.'²⁴ The missiles carried the possible risks of hitting the population and property on ground.²⁵ Nevertheless, the timing of missile incident makes the situation more suspicious, as a week earlier; Pakistan's Navy detected the entry of the Indian Navy Submarine into the Exclusive Economic Zone. Pakistan exercised a restraint response and behaved rationally on this occasion, thereby minimizing space for any unpleasant political interaction or escalation of the situation. Pakistan's immediate response is reckoned as mature and responsible inwardly and outwardly. India's diverse voices from different sectors of society, such as former diplomats, journalists, and others, have appreciated Pakistan's rational response in the wake of the missile fire.²⁶ However, Pakistan asked India for an explanation of this incident. Pakistan's Ministry of Foreign Affairs (MFA) summoned the Indian envoy and expressed discontent.²⁷ More so, the ISPR conveyed Pakistan's strong protest of the blatant violation of international law and 'cautioned against recurrence of any such incident in the future.'²⁸ Two days later, on March 11, Indian authorities stated, 'in the course of

²⁴ See "India to Explain What Happened in Mian Channu."

²⁵ Debak Das, "Not much Happened after India's Accidental Cruise Missile Launch into Pakistan—This Time," *Bulletin of the Atomic Scientists*, March 25, 2022, Available at: <https://thebulletin.org/2022/03/not-much-happened-after-indias-accidental-cruise-missile-launch-into-pakistan-this-time/> (Accessed on April 8, 2022).

²⁶ "Indians Call Pakistani Response "Very, Very Mature" on Accidental Indian Missile in Pakistani territory," *The Current*, March 12, 2022, Available at: <https://thecurrent.pk/indians-call-pakistani-response-very-very-mature-on-accidental-indian-missile-in-pakistani-territory/> (Accessed on April 8, 2022).

²⁷ See "Pak Summons Indian Envoy Over Alleged Violation of its Airspace by Missile," *Business Standard*, March 11, 2022, Available at: https://www.business-standard.com/article/current-affairs/pak-summons-indian-envoy-over-alleged-violation-of-its-airspace-by-missile-122031101036_1.html (Accessed on April 8, 2022).

²⁸ See "Missile 'Accidentally' Fired into Pakistan, admits India," *Daily Times*, March 12, 2022.

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a routine maintenance, a technical malfunction led to the accidental firing of a missile’ – saying that the incident was ‘regrettable.’²⁹ Indian authorities also stated that ‘the Government of India has taken a serious view and ordered a high-level Court of Enquiry.’³⁰

This development was followed by a counter-response from Pakistan's MFA, with a long list of binding technical questions asking India to respond.³¹ Pakistan's then-National Security Advisor, Moeed Yusuf, lambasted India on social media, questioning the safety of India’s ‘nuclear and other high-end systems and asking if this was an ‘inadvertent launch or something more; intentional.’³² Pakistan announced that ‘the Indian decision to hold an inner court of inquiry is insufficient since the missile ended in Pakistani territory. Pakistan demands a joint probe to establish the facts surrounding the incident accurately.’³³ This incident certainly questions India's international obligations mentioned in the United Nations Charter under the Article 2 (4), in which it is stated that ‘all Members shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any State, or any other manner inconsistent with the purposes of the United Nations.’³⁴ In this sense, the missile launch has blatantly violated Pakistan's air space and

²⁹ See “India says it accidentally fired missile into Pakistan,” *Aljazeera*, March 11, 2022, Available at: <https://www.aljazeera.com/news/2022/3/11/india-says-it-accidentally-fired-missile-into-pakistan> (Accessed on April 8, 2022).

³⁰ *Ibid.*

³¹ Naveed Siddiqui, “Why did India Fail to Inform about Accidental Missile Launch Immediately? Asks Pakistan,” *Dawn*, March 12, 2022.

³² See “NSA Yusuf Calls for Investigation to Know Real Reason behind Indian Missile Incident,” *The News*, March 11, 2022.

³³ See “Pakistan Demands Joint Probe into ‘Accidental’ India Missile Fire,” *Reuters*, March 12, 2022, Available at: <https://www.reuters.com/business/aerospace-defense/pakistan-demands-joint-probe-into-accidental-india-missile-fire-2022-03-12/> (Accessed on April 8, 2022).

³⁴ See “Charter of the United Nations,” *Codification Division, Office of Legal Affairs*, latest updated on March 10, 2021, Available at: <https://legal.un.org/repertory/art2.shtml> (Accessed on April 8, 2022).

undermined the global aviation rules and protocols, thus endangering commercial flights, human life, and property. India's silence and the cold response have led to building misperception in the mind of Pakistani leadership as to why India is not coming up openly on this incident. Pakistan's MFA demanded 'a joint investigation.'³⁵

Amusingly, after the conduct of Court Inquiry at the unilateral level, the Indian authorities came up with a new narrative propagating that it was an accidental launch that involved human errors.³⁶ It seems that the Indian human-error narrative over malfunction was projected to defuse set-back on BrahMos' technical efficiency and effectiveness as India struck a deal on export of BrahMos worth \$374.96 million with Philippines.³⁷ The government of the Philippines inquired from the Indian authorities about the technical efficiency of the BrahMos missile.

By all dimensions, the Indian missile launch could have prompted Pakistan to conduct retaliatory strike. India's irrational behavior could have led to a nuclear escalation in the already fragile security situation between India and Pakistan.³⁸ The recent missile incident again validates the vulnerability of deterrence theory and the fragility of strategic stability in the nuclear-armed South Asian region. However, the international community and, more specifically, the U.S. remained almost aloof. During a press conference for comments, a question was

³⁵ See "Pakistan Demands Joint Investigation into India's 'Accidental' Missile Fire," *TRT World*, March 12, 2022, Available at: <https://www.trtworld.com/asia/pakistan-demands-joint-investigation-into-india-s-accidental-missile-fire-55466> (Accessed on April 10, 2022).

³⁶ See Matt Korda, 'Flying Under the Radar: A Missile Accident in South Asia,' *Federation of American Scientists*, April 4, 2022, Available at: <https://fas.org/blogs/security/2022/04/flying-under-the-radar-a-missile-accident-in-south-asia/> (Accessed on April 10, 2022).

³⁷ *Ibid.*

³⁸ Muhammad Saleh Zaafir, "India's Irresponsible Attitude Could Lead to Nuclear Escalation in South Asia," *The News*, March 23, 2022.

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posed to the U.S. Department of State's spokesman, Ned Price. He stated, 'we have no indication, as you also heard from our Indian partners, that this incident was anything other than accident. We refer you, of course, to the Indian Ministry of Defence for any follow-up.'³⁹ There was a muted response from the international community or institutions, presumably as the entire world is focused on Ukraine crisis and South Asia is not a priority region. Significantly, the missile launch incident between nuclear-armed countries demanded severe attention from the global community and institutions. However, the world community missed the missile incident, which could have escalated another crisis between the two nuclear rivals. More specifically, even the U.S., which remained a significant peace broker in the region, did not give due consideration to the occurrence. The U.S. role as a crisis manager has diminished in South Asia because of the global power shift and its strategic partnership with India.⁴⁰ This puts to question the U.S. standing as an honest broker between India and Pakistan.

Pakistan, instead of looking outwardly, successfully convinced the Council of Foreign Ministers (CFM); to participate in 48th session of the Organization of Islamic Cooperation (OIC) that was held in Pakistan between 22-23 March to discuss challenges being faced by the Muslim world and emerging opportunities, to adopt a resolution emphasizing peace and stability in the region.⁴¹ The resolution expressed deep concerns about this missile incident 'which constituted multiple violations of international law, the UN Charter, Articles on the

³⁹ See "The U.S. declares India's Missile Fire into Pakistan 'Nothing but an Accident,'" *The News*, March 15, 2022.

⁴⁰ See Rizwana Abbasi and Zafar Khan, *Nuclear Deterrence in South Asia: New Technologies and Challenges to Sustainable Peace* (Oxford: Routledge, 2019), 45.

⁴¹ See "OIC Endorses Pakistan's Call for a Joint Probe into March 9, 2022, Missile Incident," *Ministry of Foreign Affairs, Government of Pakistan*, March 23, 2022, Available at: <https://mofa.gov.pk/oic-endorses-pakistans-call-for-a-joint-probe-into-the-9-march-2022-missile-incident/> (Accessed on April 10, 2022).

Responsibility of States for Internationally Wrongful Acts, civil aviation rules and safety protocols, and endangered human life and property, besides posing a grave threat to regional and international peace, security and stability.⁴² The OIC Foreign Ministers endorsed Pakistan's position and demanded that India conduct a joint investigation to ascertain the facts that led to the missile incident.⁴³ The envoys of the P-5 countries were also briefed about the developments, and Pakistan's representatives abroad have been asked to raise the matter in relevant international forums.⁴⁴ The OIC Foreign Ministers, in the resolution, called on India 'to fully abide by its international obligations,'⁴⁵ as the duty to protect dangerous arsenals, materials, and systems related to Weapons of Mass Destruction (WMD), as well as nuclear security, is a state's strict liability under international law.⁴⁶

Accidental or advertent launch

Thus, Thus, this incident warrants a deeper assessment of whether this was an accidental launch, as claimed by India, or an advertent act. Three possible scenarios help draw plausible findings on this incident and each one brings a set of troubling questions to the spotlight. One likely scenario is that the Indian missile landing during peacetime was an advertent move to test the readiness of Pakistan's defense systems, probing the latter's monitoring and tracking systems and its response level, precipitating a crisis. Naeem Salik contends that India has built a

⁴² Anadolu Agency, "OIC Supports Pakistan's Call for Joint Probe into India Missile fire," *Pakistan Today*, March 24, 2022.

⁴³ "OIC Endorses Pakistan," *Ministry of Foreign Affairs*, Available at: <https://mofa.gov.pk/oic-endorses-pakistans-call-for-a-joint-probe-into-the-9-march-2022-missile-incident/>, (Accessed on April 2, 2022)

⁴⁴ Author's Interview with Kamran Akhtar, Director General of Arms Control and Disarmament, *Ministry of Foreign Affairs, Pakistan*, March 16, 2022.

⁴⁵ "OIC Endorses Pakistan," *Ministry of Foreign Affairs*, Available at: <https://mofa.gov.pk/oic-endorses-pakistans-call-for-a-joint-probe-into-the-9-march-2022-missile-incident/>, (Accessed on April 2, 2022)

⁴⁶ *Ibid.*

'fabricated story.'⁴⁷ Salik asserts that 'the story India came out with doesn't make sense and is a cover-up because militaries do maintenance of weapons and equipment during daylight and not in the dark.'⁴⁸ He further stated,

If it were an accidental launch, it would have flown in a straight path, and the sharp turn into Pakistan is inexplicable unless there was a technical malfunction and the control of the weapon was lost. Doing such a thing deliberately to test Pakistani reactions is too dangerous because they couldn't have anticipated how Pakistan would react. What if Pakistan had launched one of its missiles in response?

Zamir Akram also holds a similar view,⁴⁹ that the chances of deliberate incursion seem high as India wanted to probe Pakistan's response. He gave three reasons to expose India's cover story: a) the missile systems are always programmed under specific protocols that are routinely observed. This happens during routine maintenance, and missiles are not kept in a ready-to-launch state for routine maintenance. Accidents do not happen like this if the procedure is in place; b) what barred Indians from notifying Pakistan by using DGMOs or any other hotlines if it was a malfunction, Akram asked? The Indian took forty-eight hours to make a lame apology that too after Pakistan revealed the incident publicly; c) India's fascist Modi government is also pursuing the strategic doctrine of a preemptive first-strike against Pakistan, with its adventurism being encouraged by the Indo-U.S.

⁴⁷ Author's Interview with Brig (Retd.) Dr. Naeem Salik, Senior Research Fellow (Non-Resident), *Center for International Strategic Studies*, March 23, 2022.

⁴⁸ Ibid.

⁴⁹ Author's Interview with Ambassador (Retd.) Zamir Akram, *Advisor to the Strategic Plans Division, Pakistan*, March 23, 2022.

strategic partnership which has significantly enhanced India's military capabilities. Akram reasserts that it seems deliberate intrusion as we witnessed such incursions by Indian submarines a few weeks ago and earlier during the 2019 Balakot crisis,⁵⁰ these submarines were testing Pakistan's detection and interdiction capabilities.⁵¹

Another expert, Naeem Khalid Lodhi, when approached for comments, opined that 'modern missile systems have 'fail-safe,' multilayered 'negative controls,' 'positive controls,' and 'self-destruct' arrangements. So, this drama of an 'accidental launch' and then 'turning' at a specific waypoint towards a hostile country, defying all controls, is a farce.'⁵² He further argued, 'the technical and strategic communities, the world over, understand what is being said very well. The intentions were to 'map the response parameters' and an attempted 'escalation dominance.'⁵³ Akram further stated that we are waiting for India to make it clear. Consequently, Pakistan will have to make its assessment of the incident, whether it was indeed 'accidental' or a deliberate incursion. Indeed, if this is the case, Pakistan will move to a more ready mode, creating further heightened risks in the nuclearized region.⁵⁴ When Naeem Salik was asked to comment on the consequences of such deliberate incursion, he also agreed, 'this

⁵⁰ Muhammad Saeed Uzzaman, Azhar Waqar and Muhammad Amin, "India's Quest to Establish Surgical Strikes as a New-Normal against Nuclear Pakistan: A Self-Deception or New-Reality?," *Global Strategic and Security Studies Review*, Vol. VI (June 2021), 107-116.

⁵¹ Author's Interview with Ambassador (Retd.) Zamir Akram, *Advisor to the Strategic Plans Division, Pakistan*, March 23, 2022.

⁵² Author's Interview with Naeem Lodhi, *Lt. Gen. (Retd.) and Former Deference Secretary of Pakistan*, March 23, 2022.

⁵³ Ibid.

⁵⁴ Author's Interview with Ambassador (Retd.) Zamir Akram, *Advisor to the Strategic Plans Division, Pakistan*, March 23, 2022.

[incident] will lead to hair-trigger readiness postures and immediate response in kind.⁵⁵

The second scenario is that it was indeed a malfunction involving human and technical errors. One, India revealed that the accidental launch of the missile took place during a military exercise supervised by a Directorate of Air Staff Inspection (DASI) at one of the Indian Air Force (IAF) bases located in the north of India. This could be possible since India's supersonic missile development is still incomplete, and its accuracy is indeed not as robust as expected. Lapses in the Indian missile systems and their lack of accuracy are largely apparent. The machines are always prone to error. Zamir Akram argues,⁵⁶

Even if the launch was accidental, it raises concern over the Indian fail-safe measures and procedures in place to prevent such accidents; while also indicating that Indian missiles are kept primed for launch even under routine maintenance. Such procedures were not observed, which, at the very least, underscores Indian irresponsibility, inefficiency, and incompetence.

Two, Pakistan immediately perceived it as an accidental fire as Pakistan claims to have tracked it from the point of launch to the location it landed. Thus, Pakistan preferably chose a restraint and rational response to minimize escalation risks.

Such accidental failure has also occurred in the past. For instance, many 'false alarms' and accidents have been reported on the U.S. side, ranging from minor to grave, in the Cold War era. To prevent

⁵⁵ Author's Interview with Brig (Retd.) Dr. Naeem Salik, Senior Research Fellow (Non-Resident), *Center for International Strategic Studies*, March 23, 2022.

⁵⁶ Author's Interview with Ambassador (Retd.) Zamir Akram, *Advisor to the Strategic Plans Division, Pakistan*, March 23, 2022.

reputational cost, numerous incidents remained unreported to the common masses and even to the relevant field experts. Further, the Soviet side is also not an exception to mishaps and accidents. Scott D. Sagan, in his volume, *The Limits of Safety*, illustrates all such cases.⁵⁷ On June 3, 1980 a false alarm created by a defective computer chip in a communication devised at North American Air Defence Command (NORAD) led to an erroneous warning in the U.S. The false alarm was perceived as that the Soviets had launched two hundred and twenty missiles, alerting Americans for a counterattack.⁵⁸ Eric Schlosser in his '*Command and Control*,'⁵⁹ Assesses how systems instituted to regulate nuclear weapons, like entire new technologies, are flawed as they are designed, manufactured, fitted, and maintained by humans. He shares how failure in C2 system can lead to eradicating humanity inadvertently. The dangerous risks were attached to the Cold War model, and the dangers still exist. The workforces operating these systems often suffer from low morale or inadequate training. While working with any new technological system, the probability of false alarms is high. Andrew Futter stated, 'I am not sure we can draw much about the missile from this incident. Tests do go wrong. But it does raise questions about command and control, security protocols, and operational practices, and certainly challenges the narrative that weapons systems with possible strategic applications are carefully controlled.'⁶⁰ He further stated, ' this is not an isolated incident -

⁵⁷See the work of Scott Douglas Sagan, *The Limits of Safety, Organizations, Accidents and Nuclear Weapons* (Princeton University Press, 1995), 38.

⁵⁸ Eric Schlosser, "World War Three, By Mistake," *The New Yorker*, December 23, 2016, <https://www.newyorker.com/news/news-desk/world-war-three-by-mistake> (Accessed on April 10, 2022).

⁵⁹See the work of Eric Schlosser, *Command and Control: Nuclear Weapons, the Damascus Accident, and the Illusion of Safety* (New York: Penguin Group, 2013), 74.

⁶⁰ Author's Interview with Andrew Futter, Professor of International Relations at the University of Leicester, U.K., March 16, 2022.

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history is full of accounts of accidents with hazardous weapons systems, including missile launches.⁶¹

Futter comments, 'this is potentially a dangerous incident that could easily have led to misperception and escalation. We have probably been lucky that this didn't happen during a crisis or that the missile didn't kill many people or destroy something.'⁶² Futter further commented, 'I have been surprised that this hasn't gained more attention in Western media (which is almost completely focused on the war in Ukraine) given the seriousness.'⁶³ Indeed, the communication gap, ineffectiveness of hotlines, and mistrust - of both the states have deepened after India striped Kashmir of its semi-autonomous status, which could have created a considerable probability of an unintended conflict.

The second scenario raises questions on the effectiveness, credibility, accuracy, and reliability of the Indian BrahMos class missile regiment. This also raises questions about robustness of the Indian C2 system. This proves the Indian neglect of aviation safety protocols and questions their program's technological prowess and credibility. Restrained response of Pakistan has averted the escalation of the missile incident into a crisis, but India's credentials as a responsible nuclear weapons state are under a big question mark. Indian such behaviour has undermined the notion of deterrence theory and its applicability in South Asia. Frank O'Donnell,⁶⁴ stated that 'India would need to take corrective measures, to reassure its own citizens and the world of the security of its missile forces such as a suspension of missile

⁶¹ Ibid.

⁶² Ibid.

⁶³ Ibid.

⁶⁴ Deputy Director of the South Asia program at the Washington-based Stimson Center.

tests and a review of the command-and-control procedures as first steps.’⁶⁵

Under these circumstances, the Pakistani leadership's approach to waiting and ascertaining that the missile was fired intentionally or unintentionally was highly mature and rational. Under such pressing circumstances, the temperaments of the leader are equally important as the information being offered by the system or surveillance made. Such an Indian mistake could have escalated into a major confrontation.

The third scenario is that it was an unauthorized missile launch. The reports suggest that the IAF personnel are involved in the missile incident.⁶⁶ Even one of the Congress leaders raised questions on the involvement of the IAF personnel in the missile launch and asked the relevant authorities of the IAF to share the requisite details of how and why its personnel fired the missile.⁶⁷ According to the Indian media reports, the IAF investigation of the technical standard operating procedures points towards the Group Captain for firing an unarmed BrahMos Supersonic Missile into Pakistan's territory. The IAF personnel under scanner was in charge of the Mobile Command Post when a missile was fired.⁶⁸ Even the Indian government is constructing a

⁶⁵ Quoted in Nirupama Subramanian, "Pakistan Seeks Joint Probe after India Misfires Missile," *The Indian Express*, March 13, 2022.

⁶⁶ Riaz Khokhar and Asma Khalid, "The Indian Missile Launch in Pakistan: A Skeptical View," *Atlantic Council*, April 5, 2022, Available at: <https://www.atlanticcouncil.org/blogs/southasiasource/the-indian-missile-launch-in-pakistan-a-skeptical-view/> (Accessed on April 10, 2022).

⁶⁷ Manvendra Singh, "IAF has a lot to Answer on BrahMos Firing. It has Dented India's Image of being Responsible," *The Print*, March 16, 2022, Available at: <https://theprint.in/opinion/iaf-has-a-lot-to-answer-on-brahmos-firing-it-has-dented-indias-image-of-being-responsible/874765/> (Accessed on April 10, 2022).

⁶⁸ "IAF Group Captain under Investigation for Firing Missile into Pakistan," *Pakistan Today*, March 24, 2022, Available at: <https://en.dailypakistan.com.pk/24-Mar-2022/iaf-group-captain-under-investigation-for-firing-missile-into-pakistan> (Accessed on April 10, 2022).

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narrative on human error or unauthorized missile launch instead of technical malfunctioning to legitimize BrahMos exports. On January 28, 2022, India concluded a deal worth \$374.96 million with the Philippines to export the BrahMos missile as the attribution of a missile incident with technical error could end-up in cancellation of India's most significant military export deal.⁶⁹ What makes an unauthorized missile launch probability more specific and not accidental? One group of nuclear scientists categorizes launches as unintentional or accidentally caused by a technical malfunction. It is important to note that if the missile were fired by other than officially authorized personnel who have access to the missile system codes, it would come in the domain of unauthorized launch.⁷⁰

Vipin Narang maintains that India in the past practiced keeping its warheads and their respective delivery systems separated from each other, including the *Super Permissive Action Links (PALs)* designed to avoid accidental and unauthorized launches. Nevertheless, there is a need for strict safety and security measures with the increasing state of readiness of Indian conventional and strategic forces.⁷¹ One of the technical experts maintained that an accidental missile launch does not generally travel an optimal distance and hit a foreign country.⁷² While reviewing past accidents, Christopher Clary indicated that in the event of accidental missile fire, the clamps remained attached to the missile,

⁶⁹ Matt Korda, "Flying Under the Radar: A Missile Accident in South Asia," *Federation of American Scientists*, April 4, 2022, Available at: <https://fas.org/blogs/security/2022/04/flying-under-the-radar-a-missile-accident-in-south-asia/> (Accessed on April 10, 2022).

⁷⁰ Bruce G. Blair, Harold A. Feiveson and Frank N. von Hippel, "Taking Nuclear Missiles Off Hair-Trigger Alert," *Scientific American*, Vol. 277, No. 5 (1997), 74-81.

⁷¹ Vipin Narang, "Five Myths about India's Nuclear Posture," *The Washington Quarterly*, Vol.36, No.3 (2013), 143-157.

⁷² One of the Authors' interviews with a Pakistan military Strategist.

leading to the falling of the missile at a shorter distance.⁷³ With increased safety and security measures compared to previously installed PALs, it is assumed that in charge of the post might have detached the locks and employed the requisite codes to launch the missile. Probably, there could be no other causes for the missile fire except lacking requisite safety and security measures of Indian sophisticated missile technology. The missile incident indicates that Indian military personnel of lower ranks know the codes required for missile launching. A propose, if the missile is mated with warheads (and other relevant permanently armed cannisterized missiles), it could lead to a hazardous situation. More so, this also shows the lack of professionalism and training of the Indian military personnel in handling such weapons and raises questions regarding their intentions as well. A Pakistani serving strategist, when asked for comments, stated,⁷⁴

Besides, it is believed that the launch occurred during an exercise rather than during maintenance. The fact is that the missile was armed with an 'inert' warhead lends credence to the 'exercise' context, rather than the maintenance one, as an utterly unarmed missile will not follow the trajectory and other flight data due to a mismatch of the weight-to-power ratio. This gives birth to the third possibility, that of an unauthorized launch.

Regardless of whether it was an advertent, accidental, or unauthorized launch, by all dimensions, the incident was exceedingly

⁷³ Christopher Clary, "The Curious Case of the Accidental Indian Missile Launch," *War on the Rocks*, March 17, 2022, Available at: <https://warontherocks.com/2022/03/the-curious-case-of-the-accidental-indian-missile-launch/> (Accessed on April 10, 2022).

⁷⁴ One of the Authors' interviews with a Pakistani serving senior military official wanted his name to be kept anonymous.

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risky and carried the enormous potential to invite a more significant crisis, thus endangering humanity.

Why hotlines failed?

Does the question arise as to why India failed to use hotlines to inform Pakistan about this missile accident? The DGMO's hotlines of the two countries were not used. India used no other military, diplomatic or political channel to notify Pakistan of this fire until Pakistan's ISPR held a public press conference asking India for an explanation of the incident. The Foreign Secretaries Hotline which was established as a part of the nuclear CBMs between the two countries is reportedly dysfunctional following Indian refusal to maintain any engagement with Pakistan. This failure of diplomacy can be squarely blamed on Indian hubris and its belligerence marked by refusal to engage with Pakistan contrary to the practice of the nuclear powers like the U.S. and Russia which at the height of their tensions during Cold War and even in the present Ukrainian conflict still continue to maintain channels of communication. As proposed by the deterrence theory that stable deterrence leads to secure peace and open communication channels minimize mistrust and reduce risks. This scenario seems to be misplaced in South Asia.

Why joint probe?

A joint probe is required to establish the facts surrounding the incident accurately.⁷⁵ It has violated the air space of Pakistan, the spirits of the bilateral agreements (highlighted below), and international aviation protocols. A one-sided fact may not satisfy Pakistan or overcome the

⁷⁵ See "Pakistan Demands Joint Probe into 'Accidental' India Missile Fire," *Reuters*, March 12, 2022, <https://www.reuters.com/business/aerospace-defense/pakistan-demands-joint-probe-into-accidental-india-missile-fire-2022-03-12/> (Accessed on April 10, 2022).

latter's misperceptions. The joint probe may mitigate misperception, build bilateral confidence and trust, and mitigate future risks/accidents. The joint investigation may minimize space for arms readiness and deployment of arsenals in South Asia.

Eruption of renewed risks

Despite all the precautions on both sides, the prospects for an eruption of unintentional war because of a random sequence of incidents continues to be a lethal threat to South Asian rivals in particular and the world in general. Due to their geographical proximity, India and Pakistan do not have enough space and time for rational decision-making with airborne missiles launched from either side. Imagine that the whole flight time of the missile was less than seven minutes, and this narrow time slot is all that the leaders in either country have to verify and respond. Within six minutes, the two leaders in Islamabad and New Delhi have to determine whether it is an accidental launch or an actual attack and the need to retaliate amid such a crisis. This time, there was no collateral damage, which led to Pakistan's restraint response, thereby reducing the risks of any escalation had there been any cost of human lives, or destruction of economic or critical infrastructure, that would have introduced possibly different outcomes. Frank O' Donnell said, 'had the Pakistani side chosen to retaliate to the breach of its airspace, the outcome could have been 'very different.'⁷⁶ Akram also commented, 'If Pakistan's air defense had judged the unguided missile to be the start of an Indian missile attack, Pakistan would not only have shot down the missile but could have launched its missiles against Indian targets. Such deterrence breakdown between two nuclear powers could have escalated into a

⁷⁶ Quoted in Nirupama Subramanian, "Pakistan Seeks Joint Probe after India Misfires Missile," *The Indian Express*, March 13, 2022.

major confrontation.⁷⁷ Both nuclear states have devised confidence-building and nuclear risk-reduction measures in the past. These initiatives include an agreement signed in 1988 to avoid attacking nuclear installations, including the exchange of designated facilities details on an annual basis; an accord signed in 1991 to intimate each other about the major military exercises and also to limit its geographical space; an arrangement to pre-notify the conduct of ballistic missile flight-tests;⁷⁸ An agreement was signed in 2007 to intimate about the nuclear accidents immediately. The cruise missiles are not included in the existing nuclear CBMs regime. The exclusion of intimation regarding the flight tests of a cruise missile creates space for the risk of misapprehension regarding the launch of a cruise missile.

Broken communication channels, inactive hotlines, and no high-level officials' communication to conduct deliberation on conventional or nuclear confidence-building measures made this accident very difficult. This incident may drive both the states towards other arms racing, arms readiness, and deployment of arsenals. As for the future, Salik, while refereeing to hair trigger readiness postures argued that this development has led to creating renewed consequences, especially during crises and periods of high tension.⁷⁹ Indeed readiness of arsenals will lead to multiply risks and endanger deterrence stability and efficacy of deterrence theory.

⁷⁷ Author's Interview with Ambassador (Retd.) Zamir Akram, *Advisor to the Strategic Plans Division, Pakistan*, March 23, 2022.

⁷⁸ Under this Accord, India and Pakistan agreed to inform each other of a planned five-day period within which a ballistic missile test will take place, with three days' notice of the initiation of this window. The notification includes warning the air and naval areas to be affected by the test. India and Pakistan have also pledged that missiles will not overfly the international border or Line of Control and that their trajectories will remain at least 40 km away and land at least 75 km from these boundaries.

⁷⁹ Author's Interview with Brig (Retd.) Dr. Naeem Salik, Senior Research Fellow (Non-Resident), *Center for International Strategic Studies*, March 23, 2022.

Risks reduction measures

The two states have achieved nuclear learning and enough nuclear efficiency and sufficiency to harm each other. Both should work on minimizing the risk of unauthorized or accidental launch or detonation, misperceptions, and miscalculations. A most urgent need is to reactivate strategic communication channels and establish additional ones for crisis management. Some risk reduction measures may include: one and both countries should urgently and formally expand the scope of the ballistic missile test pre-notification agreement that was signed in 2005 to include cruise missiles. Futter also suggests, 'If there isn't already, then missile test and launch notifications for each side would be a good idea, and immediate notification via a secure high-level hotline if accidents like this ever happen again. It would also be a good idea not to test missiles near the India-Pakistan (or India-China border).⁸⁰ Salik also argued, 'There is also a need to bring into missile test notification agreement the notification of cruise missiles, including air-launched and sea/sub-sea launched cruise missiles.'⁸¹ Two, restraint measures should be taken against the deployment of destabilizing systems, which could seriously impact crises and arms control stability and initiate talks between both sides to clarify the nature of different missiles as which ones are conventional and which are assigned with the strategic role. Three, keep the DGMOs hotlines under all the circumstances open despite their ongoing mistrust and differences developed in the backdrop of the Balakot crisis and the Indian stripping of semi-autonomous status of Kashmir. Naeem Khalid Lodhi stated, 'this incident also indicates a great vulnerability in the Indo-Pak situation, and that is the missing hotlines and prompt communication channels between two nuclear neighbors. This should

⁸⁰ Author's Interview with Andrew Futter, Professor of International Relations at the University of Leicester, U.K., March 16, 2022.

⁸¹ Author's Interview with Brig (Retd.) Dr. Naeem Salik, Senior Research Fellow (Non-Resident), *Center for International Strategic Studies*, March 23, 2022.

be corrected on priority; otherwise, one and a half billion human lives will remain in jeopardy.¹⁸² Indeed, reactivation of the hotlines will help minimize the potential risks during crises. Four, the India-Pakistan 2007 agreement on prevention of accidental and unauthorized launch of nuclear weapons needs to be amended to mention delivery systems explicitly, or there could be a new agreement to cover inadvertent/accidental firing of missiles.¹⁸³ Reactivating dialogue on all the issues, including Kashmir, will minimize growing uncertainty and mistrust. Six, introducing a code of conduct on media use during crises as media plays a sensational role in escalating the problem, not de-escalating.

Finally, nuclear states should lead to further-reaching arms control or stabilization initiatives, including nuclear force and infrastructural reductions. The missile launch also points to the severe need to clarify the alert status of missiles and targeting practices between the two countries. However, in the absence of any diplomatic process providing for such discussions, the threat of misperceptions and inadvertent escalation will continue to loom large. The two nuclear-armed states cannot continue to allow failure of diplomacy put the whole region and beyond at risk. Thus, total applicability of deterrence theory is needed by stabilizing deterrence, inducing rational behavior, and resuming communication channels.

Conclusion

Whether the incident was an accidental, unauthorized, or deliberate incursion, in all dimensions, it questions India's irresponsible behavior. If India has taken such a move based on malign intentions, it has undertaken a substantial risky misadventure to test Pakistan's national resolve while violating United Nations Charter, international aviation

⁸²Author's Interview with Naeem Lodhi, *Lt. Gen. (Retd.) and Former Deference Secretary of Pakistan*, March 23, 2022.

⁸³ Author's Interview with Brig (Retd.) Dr. Naeem Salik, Senior Research Fellow (Non-Resident), *Center for International Strategic Studies*, March 23, 2022.

rules, and safety protocols. India would be gravely mistaken if it drew some wrong conclusions from this misadventure. Given the absence of hostilities and other instances, Pakistan acted with prudence. However, it would be dangerous and unfair to assume that an actual crisis might evidence similar restraint from Pakistan. If the incident was a malfunction, it questions the credibility of the Indian Cruise missiles regiment, its C2 system and safety procedures, and the workforce's efficiency. Luck has been on the side of the states that lack collateral damage and restrained Pakistan's retaliation. Testing a nuclear weapon state's tolerance and patience level is always risky/ catastrophic and against the spirit of deterrence theory. Both states should have no illusion that uncontrollable escalation risks are attached, given the geographical proximity and time involved in nuclear use decisions. More so, role of any outsider player as a facilitator in crisis management is exceedingly limited. Both should act rationally as emotional and intolerant behavior is not commensurate with the responsibility of a nuclear weapon state as is guided by deterrence theory.

The two states should urgently extend the 2005 ballistic missile test pre-notification agreement, initiate a deal on the deployment of de-stabilizing systems, and start talks between both sides to clarify the nature of other missiles. Which ones are conventional and assigned with strategic role; amend the 2007 agreement to include delivery systems; initiate a new deal to cover inadvertent/ accidental firing of missiles and fully activate all the hotlines and strategic communication channels even during peacetime or crises. Both should make certain compromises to implement risk reduction measures to avoid such misadventures, thus evading misperceptions, accidents, and inadvertent escalation as is guided by deterrence theory. Finally, the international community has a role in preventing a crisis, upholding

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strategic stability in South Asia, and shunning policies that accentuate asymmetries and threaten regional balance.