# Journal of Security & Strategic Analyses (JSSA)



Integrated Deterrence in the Asia-Pacific: Exploring Medium Power Strategic Autonomy

Komal Khan and Sher Bano

Applying Situational Crisis Communication Theory (SCCT) to Crisis Termination Dynamics in South Asia: An Assessment of Actor Roles and Responses

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Emerging Nuclear Countries and International Cooperation: What can Pakistan Offer?

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China's Naval Modernisation Since 2013: Implications for Regional Security Abdur Rehman



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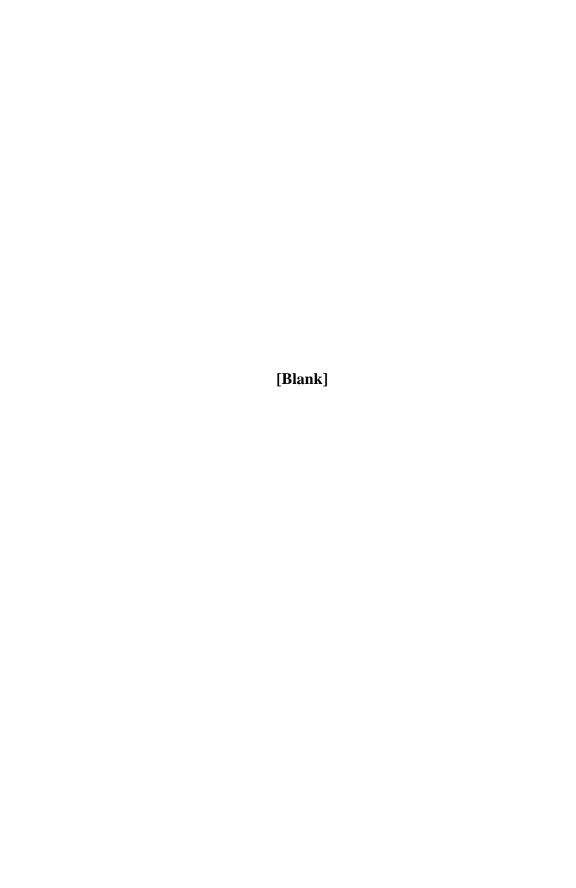
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#### **Editor's Note**

The Journal of Security and Strategic Analyses (JSSA) presents a comprehensive collection of intellectually stimulating academic analyses to its esteemed readership. Within the scope of the JSSA's mission, this volume articulates matters of security and strategic significance at national, regional, and global levels with a special emphasis on South Asia.

Six research articles and two book reviews have been carefully selected after a rigorous three-tiered double-blind peer-review process. Each research article provides a coherent and policy-oriented perspective, accompanied by theoretical frameworks and precisely delineated methodological approaches. As a result, this volume offers a compelling resource for scholars, students, and policymakers alike, ensuring its relevance and value within the academic community.

SVI acknowledges the authors who have made significant contributions to this issue of the journal. Notably, the contributions of reviewers are an important aspect of the scholarly publishing process in JSSA. SVI acknowledges and appreciates their time, effort, and expertise in providing valuable feedback and improving the quality of the manuscript.

The JSSA conforms to the standard HEC guidelines/rules of publication and seeks to maintain the general quality of the contributions as per the international standards. It is an HEC-HJRS-recognised journal in the Y category and aspires to become a top-ranking HEC-recognised journal. The quality aspect remains and will always be the prime concern of the SVI, supplemented by a careful selection of the manuscripts, wherein the readers can find a collection of well-written, academically sound research papers that have attempted to methodically examine various strategic and security issues in detail. It is hoped that the readers will be able to benefit from the analyses presented in this issue.

Let me assure you that SVI will continue to bring out subsequent volumes of JSSA regularly and is looking forward to receiving high-quality manuscripts exclusively written for the JSSA.

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## **RESEARCH PAPERS**

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# Integrated Deterrence in the Asia-Pacific: Exploring Medium Power Strategic Autonomy

Komal Khan and Sher Bano\*

#### Abstract

The study analyses the potential for strategic autonomy of the alliances and like-minded partners of the US and China with an emphasis on Japan and Australia as significant proximate states in addition to India and Pakistan from traditional Rimland states. competing great powers construction of networkedsecurity theatres under the balance of influence mechanisms fix medium powers as crucial stakeholders in the contested maritime theatres. Through this security networking, integrated deterrence is being achieved by conventional and non-conventional strategic technology exchange while retaining the policy of denial for nuclear acquisition. Therefore, it is important for the regional states to investigate the longterm impact of integrated deterrence in the form of potential medium power autonomy emanating from strengthened regional deterrence structures in the Asia-Pacific. That will in turn provide an idea about the extent to which these medium powers will be allowed to and can claim strategic autonomy in the emerging multi-polar order.

### Keywords

Integrated Deterrence, Asia-Pacific, Medium Power, Strategic Autonomy, Full Spectrum Deterrence, Deterrence by Denial.

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#### Introduction

In the Asia-Pacific region, the dynamics of great power competition involve integrated deterrence strategies that encompass the distribution of power, categorizing deterrence relationships into both alliances and partnerships; thereby establishing regional deterrent structures through interoperability.

This strategy has been adopted by China<sup>1</sup> and the United States<sup>2</sup> to construct networked-security theatres to achieve global strategic balance<sup>3</sup> and a balance of influence<sup>4</sup> amid their bilateral strategic competition<sup>5</sup> for world order determination in the Asia-Pacific. However, the medium powers benefit from their economic and technological prowess, and strategic geopolitical location which places them as the crucial stakeholders in the contested maritime theatres in the Asia-Pacific. Thereby, the integrated deterrence strategy in strengthening structural indeterminacy holds prospects for medium power autonomy. Concurrently, this structural ambiguity has been reflected in the intricate deterrence structures. In such an order, medium-powers, predicated on their instrumental rationality, typically safeguard their utmost interest through issue-based alliances and objectivity with both rival powers.<sup>6</sup>

Before establishing the causal relationship between integrated deterrence and medium power autonomy, it is important to define the concepts employed in this study. The concept of "integrated deterrence" describes combination of various elements of national power including capabilities, previously of a single state and at present of the state and its partners, allies or proxies, to construct a comprehensive deterrence

<sup>&</sup>lt;sup>1</sup> "China's National Defense in 2002," *Govt. white papers*, accessed December 11, 2023, http://www.china.org.cn/e-white/20021209/index.htm.

<sup>&</sup>lt;sup>2</sup> Pacific strategy - *The White House*, 2022, 12, <a href="https://www.whitehouse.gov/wp-content/uploads/2022/02/U.S.-Indo-Pacific-Strategy.pdf">https://www.whitehouse.gov/wp-content/uploads/2022/02/U.S.-Indo-Pacific-Strategy.pdf</a>, 12

<sup>&</sup>lt;sup>3</sup> "China's National Defense in 2002."

<sup>&</sup>lt;sup>4</sup> "China's National Defense in 2002."

See also Pacific Strategy, 5.

<sup>&</sup>lt;sup>5</sup> Pacific Strategy, 5.

<sup>&</sup>lt;sup>6</sup> Ralf Emmers and Huong Le Thu, "Vietnam and the Search for Security Leadership in ASEAN," *Asian Security* 17, no. 1 (2020): 64–78, https://doi.org/10.1080/14799855.2020.1769068

strategy.<sup>7</sup> To improve the legitimacy and efficacy of deterrence, it entails integration of diverse military forces, including both conventional and nuclear.<sup>8</sup> Strategic autonomy means state's ability to decide its spectrum of foreign and security policy while acknowledging that this decision-making might not be entirely independent at present, but is exercised in collaboration with third parties. Lippert, Ondarza and Perthes argue that strategic autonomy is relational.<sup>9</sup> It means a strategy to secure, increase, and promote states' national interest on the basis of its own priorities by seeking alignments with power poles.<sup>10</sup> Strategic autonomy of states in the Asia-Pacific maybe envisaged in relation to integrated deterrence of the great powers and medium powers through their competitive alliances and partnerships. It applies specifically to the amphibious states getting aligned in the deterrence networking in Asia Pacific.

A substantial body of literature exists that examines the prospects of medium power autonomy within the European context. However, the enduring and unchallenged nature of the predominant role played by the United States in the Asia-Pacific security framework throughout the Cold War has resulted in an absence of investigation into the trajectories of strategic autonomy within the Asia-Pacific region. The study analyses the potential for strategic autonomy of the like-minded alliances and partners of the US and China with an emphasis on Japan and Australia as significant proximate states in addition to India and Pakistan from traditional Rimland states. This research hypothesizes strategic autonomy of the medium powers as a sequel of the integrated deterrence strategy in the Asia-Pacific security theatre. Consequently, it explores the prospects for medium powers, specifically the allies and partners, in the Asia Pacific region to exert their influence as contributors to great powers'

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<sup>&</sup>lt;sup>7</sup> Col. YAMASHITA Aihito, Glenn Snyder's deterrence theory and NATO's deterrence strategy, *Ministry of Defense*, accessed December 4, 2023,

https://www.mod.go.jp/asdf/meguro/center/arpw06/6Research\_Papers2.pdf.

<sup>&</sup>lt;sup>8</sup> Aihito, "Glenn Snyder's Deterrence Theory."

<sup>&</sup>lt;sup>9</sup> B. Lippert, et. al,. "European strategic autonomy: Actors, issues, conflicts of interests," *Stiftung Wissenschaft und Politik* (2019): 5.

<sup>&</sup>lt;sup>10</sup> B. Lippert, et. al,. "European strategic autonomy."

deterrence by denial strategies<sup>11</sup> to tilt the global strategic balance in their favour in the transforming world order towards multipolarity

However, before investigating the contemporary situation, it is important to build the case by looking into historical precedent of the medium powers' autonomy subjected to the deterrence strategies of competing great powers amid international order transformation.

## Historical evidence of the medium power autonomy as a sequel of deterrence framework.

Similar to the contemporary trend of alliances and partnerships in Asia, extended and integrated deterrence arrangements in Europe were introduced by the US to manage and control the Communist influence. However, Cold War deterrence framework contributed to tendency for strategic autonomy within the European theatre. This helps in understanding trends and tendency for medium power autonomy within the Asia-Pacific competitive theatre. The case of France's autonomy would be a suitable example here.

As a result of the deterrent framework that the US established in Europe to regulate and control the influence of the Communism, France was able to acquire nuclear deterrence autonomy. By using its nuclear umbrella in Europe during the Cold War, the US gave its NATO allies extended deterrence. Nonetheless, France developed its own nuclear weapons programme in an effort to demonstrate its own autonomous nuclear deterrent capabilities.

The need to secure itself from the Cold War nuclear order led France to pursue US extended deterrence.<sup>13</sup> President Charles de Gaulle

https://media.defense.gov/2021/Mar/07/2002595021/-1/-1/1/18%20DIEHL.PDF.

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<sup>&</sup>lt;sup>11</sup> Diehl, "Indo-Pacific Deterrence and the Quad in 2030 - U.S. Department of Defense," United States Department of Defense, accessed December 11, 2023,

See also "Japan-U.S.. Joint Leaders' Statement: Strengthening the Free and Open International Order," *The White House*, May 23, 2022, https://www.whitehouse.gov/briefingroom/statements-releases/2022/05/23/japan-u-s-joint-leaders-statement-strengthening-the-free-and-open-international-order/.

<sup>&</sup>lt;sup>12</sup> ANAND MENON, "From Independence to Cooperation: France, NATO and European Security," *International Affairs* 71, no. 1 (1995): 19–34, <a href="https://doi.org/10.2307/2624008">https://doi.org/10.2307/2624008</a>

<sup>&</sup>lt;sup>13</sup> Frédéric Bozo, "The Sanctuary and the Glacis: France, the Federal Republic of Germany, and Nuclear Weapons in the 1980s (Part 1)," *Journal of Cold War Studies* 22, no. 3 (2020): 119–79, https://doi.org/10.1162/jcws\_a\_00929.

viewed that autonomy in military and strategic issues was crucial, especially in the context of nuclear weapons; and nuclear weapons and decisions could not be shared<sup>14</sup>. This led France to withdraw from NATO's integrated military command structure in 1966<sup>15</sup> and develop an independent nuclear deterrent<sup>16</sup>. He used NATO's integrated command as a manoeuvre for negotiating a bargain in strategic issues with the US since he recognised it as incompatible with France's strategic autonomy. Moreover, it was a mechanism of reiterating France's standing as a significant regional state with crucial military and strategic capabilities, including a self-sufficient nuclear deterrent.<sup>17</sup> It came about as a result of France realising how crucial its weapons and strategic location were to NATO's deterrence framework, particularly during the Cold War. France was a necessary component for strengthening NATO's capabilities and security in Europe.

Despite not being an ally to NATO, during the Cold War, France actively engaged in NATO's extended deterrence efforts to keep it fixed as major stakeholder in European security. The Ailleret-Lemnitzer Accords of August 1967 allowed the French Army to partake in NATO operations against Eastern threats, operating under national command—an embodiment of Gaullist ideals. Subsequently, the Valentin-Ferber Accords in July 1974 further aligned France with NATO by outlining scenarios enabling the French Army to advance eastward and ensuring the integrity of the NATO region. It's naval and air forces actively engaged in NATO exercises and collaborated on joint procurement projects like NADGE (NATO Air Defence Ground Environment). This sophisticated radar system, spanning from Norway to Turkey, formed an extensive network crucial for detecting and neutralising high-speed

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<sup>&</sup>lt;sup>14</sup> Georges-Henri Soutou, L'Alliance Incertaine Les Rapports Politico-Stratégiques Franco-Allemands, 1954-1996 (Paris: Fayard, 1996), 65.

<sup>&</sup>lt;sup>15</sup> Frédéric Bozo, "The Sanctuary and the Glacis, 119-79."

<sup>&</sup>lt;sup>16</sup> Georges-Henri Soutou, L'Alliance Incertaine Les Rapports Politico-Stratégiques Franco-Allemands, 1954-1996 (Paris: Fayard, 1996), 65.

<sup>&</sup>lt;sup>17</sup> Frédéric Bozo, "The Sanctuary and the Glacis, 119-79."

<sup>&</sup>lt;sup>18</sup> Nato, "1967: De Gaulle Pulls France out of NATO's Integrated Military Structure".

<sup>19</sup> Nato, "1967."

<sup>&</sup>lt;sup>20</sup> Nato, "1967."

enemy aircraft. NADGE served as a formidable barrier safeguarding European airspace against potential threats. France, relying on its nuclear capabilities, saw NADGE as a vital complement to its defence apparatus. By cooperating and having strategic dialogue with West Germany, especially on the subject of nuclear consultation, France negotiated its autonomy. France gradually established its intent to be more open about how it would contribute to West Germany's conventional defence. A major turning point in their negotiations was also reached when France finally committed to negotiate with West Germany about the extent of its engagement in military operations and employment of tactical or "pre-strategic" weapons in West German. 22

Because of its drive to keep an independent nuclear deterrent and maintaining its independence in nuclear decision-making, France delayed signing the Nuclear Non-Proliferation Treaty (NPT) until 1992. It emanated from President Charles de Gaulle's policy of not sharing nuclear weapons and nuclear decision making. Signing the NPT was recognised as contradictory to France's nuclear autonomy and deterrent capability, which was an integral part of its national security strategy. Furthermore, France's rejection of the "bloc system" and its adherence to strategic independence were aligned with its decision to not sign the NPT.<sup>23</sup> Hence, France's strategic bargain is an important precedent for medium powers to secure a degree of their autonomy while contributing to great power's deterrence framework

# Integrated deterrence and prospects for medium powers autonomy in the contemporary great power competition

The tailored approach to 'integrated deterrence', as elaborated by the US' Defense Secretary, Lloyd Austin, employs "using existing capabilities and building new ones, and deploying them all in new and networked ways—all tailored to a region's security landscape, and

<sup>22</sup> Frédéric Bozo, "The Sanctuary and the Glacis, 119-79."

<sup>&</sup>lt;sup>21</sup> Nato, "1967."

<sup>&</sup>lt;sup>23</sup> Frédéric Bozo, "The Sanctuary and the Glacis, 119-79."

growing in partnership with friends."<sup>24</sup> The approach to integrated deterrence has evolved from classic deterrence framework based on nuclear deterrence by punishment and denial to also non-nuclear, full-spectrum of deterrence. It aims at countering hybrid threats across domains while deprioritising nuclear options as punishment or denial policy.<sup>25</sup>

This approach is still irrelevant to the Russian policy in the Ukraine conflict, as stated by Jonathan Eyal and Dr. Matthew Harries, wherein communication of the nuclear threat still remains a credible deterrent for Russia to restrain NATO's intervention. However, the US and China's reciprocal approach in the Asia-Pacific theatre is based on complex deterrence framework implemented through strengthening of regional capabilities. Such deterrence mechanism are aimed at deterrence by denial as stated by Chen Xi and Ge Tengfei, or may operate in between the policy of punishment and denial as stated by Luis Simón. It operationalises on the principle of full-spectrum deterrence by integrating to strengthen the spectrum of capabilities of the medium powers to withstand the competitor or adversary's influence. P. Morgan, while deliberating upon collective-actor deterrence, identifies

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lloyd-j-austin-iii-participates-in-fullerton-lecture-serie/

<sup>&</sup>lt;sup>24</sup> U.S. Department of Defense, "Secretary of defense Lloyd J. Austin III participates in Fullerton Lecture Series in Singa," accessed July 27, 2021, <a href="https://www.defense.gov/News/Transcripts/Transcript/Article/2711025/secretary-of-defense-">https://www.defense.gov/News/Transcripts/Transcript/Article/2711025/secretary-of-defense-</a>

<sup>&</sup>lt;sup>25</sup> U.S. Department of Defense, "Concept of integrated deterrence will be key to national defense strategy, DOD Official SA," accessed December 8, 2021, <a href="https://www.defense.gov/News/News-Stories/Article/2866963/concept-of-integrated-deterrence-will-be-key-to-national-defense-strategy-dod-o/">https://www.defense.gov/News/News-Stories/Article/2866963/concept-of-integrated-deterrence-will-be-key-to-national-defense-strategy-dod-o/</a>

<sup>&</sup>lt;sup>26</sup> J. Eyal and D. M. Harries, "Ukraine and the consequences for nuclear deterrence," Royal United Services Institute, accessed October 14, 2022, <a href="https://rusi.org/explore-our-research/publications/commentary/ukraine-and-consequences-nuclear-deterrence/">https://rusi.org/explore-our-research/publications/commentary/ukraine-and-consequences-nuclear-deterrence/</a>

<sup>27</sup>陈曦 (Chen Xi) 葛腾飞 (Ge Tengfei), "An Analysis of the United States' Deterrence by Denial Strategy Against China [美国对华拒止性威慑战略论析]," Interpret: China, Original work published September 16, 2022, <a href="https://interpret.csis.org/translations/an-analysis-of-the-united-states-deterrence-by-denial-strategy-against-china/">https://interpret.csis.org/translations/an-analysis-of-the-united-states-deterrence-by-denial-strategy-against-china/</a>

<sup>&</sup>lt;sup>28</sup> L. Simón, "Between punishment and denial: Uncertainty, flexibility, and U.S. military strategy toward China," Contemporary Security Policy 41, no. 3 (2020): 361–384, https://doi.org/10.1080/13523260.2020.1713604

<sup>&</sup>lt;sup>29</sup> L. Saalman, "Multidomain deterrence and strategic stability in China," *Stockholm International Peace Research Institute*, accessed via http://www.jstor.org/stable/resrep39818 (2022)

the notable level of multilateralism as the driving force behind this transition. Hence, it builds the case for strategic autonomy of the medium powers in the Asia-Pacific strategic competition for order determination.

Notably, the condition to operational and credible extended deterrence is strengthening the spectra of capabilities, significantly military and defence, of regional partners and alliances. These operate as proxies of the great powers to establish a counterweight to the adversary's military and soft power influence. In other words, the balance of power in the Asia-Pacific is being achieved by distribution of power strategy to create resilient environment against adversary's influence. The US allies have previously been dependent upon the collective defence commitment of the United States exclusively. However, they have now been strengthening their spectrum of capabilities by procuring advanced technologies, particularly in the military and defence domains, from the US allies network.<sup>30</sup> While the strengthening of the medium powers' capabilities adds to the US deterrence framework to counterbalance China; in the long run, it would decrease the reliability of the US proxies on the US' collective defence and the status-quo order. The US' allies appear to be the primary beneficiaries of this strategy. This would, thereby increase their strategic autonomy in their respective regional security theatres.

For instance, Ralph Emmers, while building the case for strategic autonomy of the Asia-Pacific nations, states that the ASEAN neutrality since Cold War has evolved into cautious impartiality during the transforming multi-polarity in the Asia-Pacific.<sup>31</sup> Cognizant of the strategic impact of the integrated deterrence for the U.S., the White House in the "Indo-Pacific Strategy of 2022" underscores that the medium powers are the intermediary beneficiaries and intervening agents<sup>32</sup> in the US reassurance strategy in the region. However, these medium powers interventions signify transformation into a multipolar security framework in the Asia-Pacific. In the Asia-Pacific theatre the

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<sup>&</sup>lt;sup>30</sup> Saalman, "Multidomain deterrence."

<sup>31</sup> Emmers and Thu, "Vietnam and the Search for Security."

<sup>&</sup>lt;sup>32</sup> Pacific Strategy, 8.

management is being done with incorporation of Japan and Australia as significant proximate states in addition to Taiwan, North Korea, ASEAN, India, Pakistan, and Iran from traditional Rimland.

# Manifestations of integrated deterrence in the form of full-spectra deterrence: A precedent for medium power autonomy

Full-spectrum deterrence is being defined as a strategy under the integrated deterrence framework.<sup>33</sup> In order to discourage possible adversaries across the spectrum of conflict, full-spectrum deterrence entails integration of all accessible military capabilities in conventional, nuclear, and non-nuclear domains. The purpose of full spectrum deterrence is to deter all levels of offensive, from limited conflicts to fullscale major wars, by demonstrating the capability and communicating willingness to use a variety of military means to deter the aggression.<sup>34</sup> The understanding that deterrence extends beyond the mere threat of nuclear reprisal is the foundation of the concept of full-spectrum deterrence. It recognises that in order to achieve deterrence stability in contemporary times, conventional forces and other non-nuclear capabilities are also crucial. However, if the asymmetry of capabilities relative to the threat increases, medium powers would manage the balance by resorting to nuclear deterrence. Therefore, full-spectrum deterrence aims to establish a comprehensive and credible deterrence posture by integrating various deterrence elements, conventional forces, strategic and tactical nuclear forces.<sup>35</sup>

To assess the degree of medium power autonomy, the precondition may be strengthening the capabilities of the medium power states to build regional deterrence structures as a policy of deterrence by denial to manage the reciprocal influence. Hence it is a reciprocal bargain between great powers and medium powers in a region. Pakistan, for example, may have a significant medium power role in managing the

<sup>&</sup>lt;sup>33</sup> "Official Says Integrated Deterrence Key to National Defense Strategy," U.S. Department of Defense, December 6, 2022, https://www.defense.gov/News/News-

Stories/Article/Article/3237769/official-says-integrated-deterrence-key-to-national-defense-strategy/.

<sup>&</sup>lt;sup>34</sup> Aihito, "Glenn Snyder's Deterrence Theory." 19–34

<sup>&</sup>lt;sup>35</sup> Aihito, Glenn Snyder's Deterrence Theory." 19–34

U.S.-China competition due to its strategic proximity to China.<sup>36</sup> This is especially workable since India has taken on the role of regional policing by partnering with the US India has conditioned its partnership with the US to strengthening of India's full spectrum of capabilities, as evident by the four foundational defence agreements between the US and India.<sup>37</sup>

Pakistan has the ability to offer medium power role based on its spectra of capabilities, which is a prerequisite for the great powers to manage their competition. However, the strategic options for Pakistan as a medium powers are shrinking as depicted by Chien-Wen Kou, Chiung-Chiu Huang, and Brian Job. First, Pakistan has the potential to manage the international competition only if its internal stability is ensured by institutional reformation and its foreign policy has durability. Second, in South Asia, Pakistan has asymmetric access to conventional weapons in balance of capability to India. Pakistan has a combination of equipped conventional land, air, and naval forces to sustain balance of power at regional level. Furthermore, demonstration of Pakistan's deterrence capability may serve as deterrence via denial purpose to balance great power competition in regional theatre. And significantly, integration of tactical and strategic nuclear weapons in national power is core to Pakistan's nuclear deterrence policy. Secondary of the power of the power determined by the power of the

However, the increasing asymmetry of the spectra of capabilities relative to India may compel Pakistan to restore the deterrence stability in the region by resorting to nuclear weapons. It would be a manifestation of retrenchment from deterrence by denial policy to deterrence by punishment mechanisms. The ability to effectively deter any limited

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<sup>&</sup>lt;sup>36</sup> Komal Khan, "CHINA AND SOUTH ASIA: CHALLENGES, TRENDS AND TRAJECTORY," China in World and Regional Politics: History and Modernity, September 2022, <a href="https://cyberleninka.ru/article/n/china-and-south-asia-challenges-trends-and-trajectory">https://cyberleninka.ru/article/n/china-and-south-asia-challenges-trends-and-trajectory</a>

<sup>&</sup>lt;sup>37</sup> "U.S. Security Cooperation with India - United States Department of State," U.S. Department of State, January 14, 2021, https://www.state.gov/u-s-security-cooperation-with-india/.

<sup>&</sup>lt;sup>38</sup> Chien-wen Kou, Chiung-Chiu Huang, and Brian L. Job, *The Strategic Options of Middle Powers in the Asia-Pacific* (London: Routledge, Taylor & Francis Group, 2022), 58.

<sup>&</sup>lt;sup>39</sup> Touqir Hussain, "Pakistan's Foreign Policy Is Well Past Its Shelf Life. Here's Why It Needs a Paradigm Shift," *DAWN*, October 4, 2023, https://www.dawn.com/news/1778939.

<sup>&</sup>lt;sup>40</sup> Mansoor Ahmed, "Pakistan's Tactical Nuclear Weapons and Their Impact on Stability," Carnegie Endowment for International Peace, June 30, 2016,

https://carnegieendowment.org/2016/06/30/pakistan-s-tactical-nuclear-weapons-and-their-impact-on-stability-pub-63911.

conventional offensive makes tactical nuclear weapons a credible deterrent against limited warfare by India. Strategic nuclear forces, on the other hand, offer deterrence through punishment because they have the ability to inflict considerable damages to the aggressor. Additionally, Pakistan's deterrence strategy also includes non-nuclear capabilities, including asymmetric warfare capabilities. Therefore, Pakistan's deterrent strategy depends on its entire range of capabilities, which include non-nuclear capabilities, nuclear, and conventional forces. This range of capabilities improve Pakistan's overall full-spectrum deterrence posture by adding enhanced layers of defence and the capacity to respond to any possible aggression in a number of ways. Together, these capacities forge a strong and convincing deterrent posture that strengthens Pakistan's security, sovereignty, and to some extent autonomy by limiting chances of international intervention. Hence, Pakistan's potential deterrence role in benefit to the competing great powers in Asia Pacific may be enhanced by great powers' focus on strengthening of Pakistan's full spectra of capabilities.

## Integrated deterrence structures in the Asia-Pacific: Medium powers as intermediary beneficiaries and intervening agents

This section discusses the contemporary trends and institutional mechanisms that have been adopted by the medium powers to construct their indigenous security networks in the Asia-Pacific. It signifies medium powers objectives to seek strategic autonomy while aligning with the United States and China as part of the competition.

China's security policy in the Asia-Pacific region maintains that the United States is not permitted to intervene in land-based or maritime issues that are aligned with the region.<sup>41</sup> The reasoning behind this is that these issues are considered "internal matters"<sup>42</sup> of the states in Asia-Pacific. Additionally, the United States is still not a signatory to the

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<sup>41 &</sup>quot;China's National Defense in 2002."

<sup>&</sup>lt;sup>42</sup> Zhou Bo: 13th anniversary of Gulf of Aden Escort-history chooses Chinese Navy - opinions and interviews - *center for international security and Strategy Tsinghua University*, December 27, 2021, https://ciss.tsinghua.edu.cn/info/OpinionsandInterviews/4366

United Nations Convention on the Law of the Seas (UNCLOS)<sup>43</sup>. Through bilateral and multilateral security-cum-economic accords, China is also establishing an ASEAN security community.<sup>44</sup> In a similar vein, China is building an equally intricate web of interdependence for the regional medium powers led by the US as its allies and partners. For example, China collaborates with Japan in the fields of artificial intelligence and cyberspace.

Similarly, strengthening of partners and allies in East Asia is core to the US policy of strategic reassurance. Elaborating the strategy during his testimony<sup>45</sup> before the Congress on 'Maritime Security in the Indo-Pacific and the United Nations Convention on the Law of the Sea;' Daniel Russel, the former Assistant Secretary of State for East Asian and Pacific Affairs, stated that 'what the US is attempting to create is an instantaneous retaliation to China by re-establishing the balance of power in the Asia-Pacific. It is being done by means of modernised military deployment, strengthened and capable allies and partners in the region.' Since China has been recognised as a shared threat to the US and its allies' interests, as well as to the US-led world order in the Asia-Pacific, the US is implementing its defence and strategic security architecture through regional interoperability mechanisms.<sup>46</sup> In order to preserve the status quo of the U.S.-led international order, which is being revised by China in the Asia-Pacific, the US has chosen a strategic reassurance policy.

As part of the deterrence framework, a bilateral "Reciprocal Access Agreement" (JA-RAA)<sup>47</sup>, a defence and security agreement, was signed in January 2022 by Japan and Australia. It allows the Defence

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<sup>&</sup>lt;sup>43</sup> Zhou Bo: 13th anniversary of Gulf of Aden.

<sup>44 &</sup>quot;China's National Defense in 2002."

<sup>&</sup>lt;sup>45</sup> "Maritime Security in the Indo-Pacific and the UN Convention on the Law of the Sea," *Committee on Foreign Affairs*, April 29, 2021,

 $<sup>\</sup>frac{https://foreignaffairs.house.gov/hearing/maritime-security-in-the-indo-pacific-and-the-unconvention-on-the-law-of-the-sea/$ 

<sup>&</sup>lt;sup>46</sup> Komal Khan, "Japan-Australia Reciprocal Access Agreement: The US Security ...," Japan-Australia Reciprocal Access Agreement: The US Security Architecture In Indo-Pacific – OpEd, Eurasia Review, April 21, 2022, <a href="https://www.eurasiareview.com/21042022-japan-australia-reciprocal-access-agreement-the-us-security-architecture-in-indo-pacific-oped/">https://www.eurasiareview.com/21042022-japan-australia-reciprocal-access-agreement-the-us-security-architecture-in-indo-pacific-oped/</a>

<sup>&</sup>lt;sup>47</sup> "Japan-Australia Reciprocal Access Agreement," *Ministry of Foreign Affairs of Japan*, accessed November 5, 2023, https://www.mofa.go.jp/a\_o/ocn/au/page4e\_001195.html.

Forces of Australia and the Japanese Self-Defence Forces to have reciprocal access. With an assertive foreign policy targeted at countering China's military assertiveness, which both countries have identified as the uncertainty that Japan and Australia have been facing in the Indo-Pacific (Asia-Pacific), Japan and Australia have framed this strategic partnership around their shared underlying goal of securing their shared strategic interests aligned with the Indo-Pacific (Asia-Pacific).<sup>48</sup>

Under the terms of the Reciprocal Access Agreement, Japan and Australia will cooperate on a variety of bilateral issues, including technology, military stationing and training, access to reciprocal facilities and areas, and information sharing. <sup>49</sup> In an effort to counterbalance China in the Asia-Pacific, the agreement legalises ally support and prolonged military deployments under the extended network policy. With the support of the allies, this bilateral strategic alliance reflects the implementation of the U.S.-led military order in the Asia-Pacific, which enables more advanced military positions in the region. <sup>50</sup> In order to accomplish the goal of ensuring naval interoperability in the Asia-Pacific, the agreement guarantees military' reciprocal access to each other's installations and territories.

For the US to fight the growing global order in the Asia-Pacific with the help of friends and partnerships, the JA-RAA proposes an extension of the "United States Indo-Pacific Strategy," the "free and open Indo-Pacific policy," and the "freedom of navigation" doctrine of the United States. Simultaneously, the agreement has strategic benefits for Australia and Japan. First and foremost, it grants them legal status as possible maritime authorities in the area. Similar to Australia, which already has naval projections in the South China Sea and the Taiwan Strait, <sup>51</sup> Japan now has maritime extension in the East China Sea through

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<sup>&</sup>lt;sup>48</sup> "Japan-Australia Reciprocal Access Agreement.

<sup>&</sup>lt;sup>49</sup> "Japan-Australia Reciprocal Access Agreement.

<sup>&</sup>lt;sup>50</sup> April 29th, "Maritime Security in the Indo-Pacific and the UN Convention on the Law of the Sea," *Asia Society*, April 29, 2021, <a href="https://asiasociety.org/policy-institute/maritime-security-indo-pacific-and-un-convention-law-sea">https://asiasociety.org/policy-institute/maritime-security-indo-pacific-and-un-convention-law-sea</a>

<sup>&</sup>lt;sup>51</sup> "Australian Military to Continue Patrolling South China Sea as Beijing Warns Taiwan Independence 'Means War,'" *The Guardian*, January 29, 2021,

reciprocal access to Australian forces stationed there. The Asia-Pacific Sea Lines of Communication (SLOCs) are essential to international trade for the US' allies, especially Japan and Australia. The East Asian maritime disputes over islands, also claimed by these governments, call for integrated deterrence as balance of power procedures against China. According to Australia's '2020 Defence Strategic Update,' the region is expanding from the North-East Indian Ocean to South East Asia, the South-West Pacific, and Papua<sup>52</sup>.

Australia has taken the lead in building the US' Asia-Pacific security architecture through the commissioning of HMAS Stalwart<sup>53</sup>, the JA-RAA, and other strategic interoperability networks like the "Exchange of Naval Nuclear Propulsion Information Agreement"<sup>54</sup> and the nuclear submarine purchase with the AUKUS<sup>55</sup>. In Japan's case, the JA-RAA represents the first status of forces agreement since the year 1960. The security agreement signifies "normalisation" of security in Japan's foreign policy. It aims to create a "security nexus in the Indo-Pacific (Asia-Pacific) region by forging alliances with middle-class and equal powers. Under this security nexus, Japan has made significant deployments with JS KAGA (DDH-184), JS MURASAME (DD-101), JS SHIRANU, the Japan-Palau Goodwill Exercise, and the Japan-Vanuatu Goodwill Exercise.<sup>56</sup>

Japan's military is therefore more concerned with averting conflict than engaging in one, as Sheila A. Smith noted in her book "Japan

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Defense Ties," *The Japan Times*, December 7, 2021,

https://www.theguardian.com/world/2021/jan/29/australian-military-to-continue-patrolling-south-china-sea-as-china-warns-taiwan-independence-means-war

<sup>&</sup>lt;sup>52</sup> 2022 defence strategic update, accessed November 5, 2023,

https://www.defence.gov.au/sites/default/files/2020-11/2020 Defence Strategic Update.pdf 53 Gabriel Dominguez, "Japan's First Escort of Australian Frigate Highlights Deepening

https://www.japantimes.co.jp/news/2021/12/07/national/japan-australia-defense-china/

54 "Australia Signs Exchange of Naval Nuclear Propulsion Information Sharing Agreement,"

Defence Ministers, August 31, 2022, <a href="https://www.minister.defence.gov.au/minister/peter-dutton/media-releases/australia-signs-exchange-naval-nuclear-propulsion-information">https://www.japantimes.co.jp/news/2021/12/07/national/japan-australia-defense-china/</a>

54 "Australia Signs Exchange of Naval Nuclear Propulsion Information Sharing Agreement,"

Defence Ministers, August 31, 2022, <a href="https://www.minister.defence.gov.au/minister/peter-dutton/media-releases/australia-signs-exchange-naval-nuclear-propulsion-information">https://www.minister.defence.gov.au/minister/peter-dutton/media-releases/australia-signs-exchange-naval-nuclear-propulsion-information</a>

<sup>55</sup> Factsheet: Implementation of the Australia – united kingdom – united ..., accessed November 5, 2023, <a href="https://pmtranscripts.pmc.gov.au/sites/default/files/AUKUS-factsheet.pdf">https://pmtranscripts.pmc.gov.au/sites/default/files/AUKUS-factsheet.pdf</a>

<sup>&</sup>lt;sup>56</sup> "Indo-Pacific Deployment 2021(IPD21) | Exercise: Japan Maritime Self-Defense Force," Indo-Pacific Deployment 2021(IPD21) | Exercise | Japan Maritime Self-Defense Force, accessed November 5, 2023, <a href="https://www.mod.go.jp/msdf/en/exercises/IPD21.html">https://www.mod.go.jp/msdf/en/exercises/IPD21.html</a>

Rearmed: The Politics of Military Power."<sup>57</sup> In order to carry out this, Japan amended Article 9 of the Japanese "MacArthur Constitution," Article 9 had previously restricted the Self Defense Forces' (SDF) ability to operate fully, including their offensive military capabilities, which are currently effective deterrents, especially in areas of conflict.<sup>58</sup>

As previously mentioned, in order to meet the needs for sophisticated technology, these medium powers have been working bilaterally in regional minilaterals and at multilateral levels with the great powers included to seek appropriate counterattack military capabilities. For instance in AUKUS, the security arrangement gives Australia the potential to deter with cutting-edge nuclear submarines. In a similar vein, Japan and the US have been working together to station important weapons, such as anti-ship missiles on Japanese islands. Long-range missile deployment along the first island chain, which reaches from the Japanese archipelago to the Philippines, has been the subject of negotiations between the two states.

In a similar vein, India is hesitant to give up its strategic independence while simultaneously reaping the privileges of the strategic relationship between the two "equals" – the US and India. India has been using the partnership to acquire sophisticated technologies and armaments. The US and its European allies are pulling India into AUKUS, which is a partnership, yet more akin to an alliance in the Asia-Pacific, because of the dormant military relationship value of the Quad. The US' securities are unreliable when it comes to actual warfare, therefore it is the sole intervening hesitation of the US partners-cumallies. The US and India have formed a balancing coalition in response to the intense strategic competition between the US and China. This coalition is exemplified by the four foundational agreements between the US and India, the NSG waiver that has significantly increased the vertical

<sup>&</sup>lt;sup>57</sup> SHEILA A. SMITH, *Japan Rearmed: The Politics of Military Power*, 1st ed. (Cambridge, Massachusetts: Harvard University Press, 2019).

<sup>&</sup>lt;sup>58</sup> Komal Khan, "A Reappraisal of US Failure in Crisis Reliability in Indo-Pacific - *SVI* - *Strategic Vision Institute*," SVI, February 7, 2023, <a href="https://thesvi.org/a-reappraisal-of-us-failure-in-crisis-reliability-in-indo-pacific/">https://thesvi.org/a-reappraisal-of-us-failure-in-crisis-reliability-in-indo-pacific/</a>

<sup>&</sup>lt;sup>59</sup> Khan, "A Reappraisal of US Failure."

<sup>60</sup> Khan, "A Reappraisal."

proliferation of India's nuclear weapons programme, and the US-sponsored India's membership in the MTCR, which has advanced India's missile programme.<sup>61</sup> These could increase counterforce temptation of India, endangering the stability of the first strike relationship between Pakistan and India.<sup>62</sup>

India's recent policies and consequential lobbying demonstrate how it is taking advantage of its relationship with the United States. In the First Committee of the UN General Assembly on October 28, 2022, India cast a vote against the Comprehensive Nuclear-Test-Ban Treaty (CTBT),<sup>63</sup> expressing its opposition to international nuclear testing accords and to preserve the possibility of further testing, especially in light of its 1998 thermonuclear test failure. Notably, India declined to give the US guarantees during the finalisation of the nuclear agreement between the US and India. India's willingness to take advantage of the US' obsession to counterbalance China demonstrates how aligned it is with the US interests.

Based on allegations of low-yield nuclear tests by China and Russia, Washington Post reported that during talks with senior US national security officials, the Trump administration discussed the possibility of resuming nuclear testing and pulling out of the CTBT. However, the Bush administration weas fearful of other states following the US precedent in nuclear testing.<sup>64</sup> India's actions, such as its vote against the CTBT, are indicative of its testing the waters strategy. Given the US President's waiver authority and bipartisan backing of India as demonstrated with the Countering America's Adversaries Through penalties Act (CAATSA) exemptions in response to India's acquisition of

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<sup>&</sup>lt;sup>61</sup> Komal Khan, "The Tenuous State of Strategic Stability in South Asia," *South Asia Journal*, November 28, 2022, <a href="https://southasiajournal.net/the-tenuous-state-of-strategic-stability-in-southasia/">https://southasiajournal.net/the-tenuous-state-of-strategic-stability-in-southasia/</a>

<sup>62</sup> Khan, "The Tenuous State of Strategic Stability in South Asia."

<sup>&</sup>lt;sup>63</sup> "First Committee Forwards Three Draft Resolutions on Weapons of Mass Destruction to General Assembly for Adoption, Speakers Explain Votes on Nuclear Weapons | UN Press," *United Nations*, October 30, 2023, https://press.un.org/en/2023/gadis3729.doc.htm.

<sup>&</sup>lt;sup>64</sup> John Hudson and Paul Sonne, "Trump Administration Discussed Conducting First U.S. Nuclear Test in Decades," *The Washington Post*, May 23, 2020,

https://www.washingtonpost.com/national-security/trump-administration-discussed-conducting-first-us-nuclear-test-in-decades/2020/05/22/a805c904-9c5b-11ea-b60c-3be060a4f8e1\_story.html

S-400 missile defence systems from Russia, it is anticipated that possible penalties may not have long-lasting consequences. Tolerating India's activities is made easier by the country's economic potential as well as the sizeable Indian-American population that exists in the US think tanks and the administration. Prominent scholars, such as Ashley Tellis, have been assigned the task of building the case for India's resumption of nuclear testing. Tellis stated, "India may be compelled to test again, and when it does, it is in US interest to avoid penalising it." Tellis contends in his book "Striking Asymmetries: Nuclear Transitions in Southern Asia" that India needs to re-evaluate its nuclear programme in order to maintain its position as a strategic counterweight to China and increase its influence with the US.

All the above developments indicate the medium powers' drive for self-sufficiency in security and regionalisation of security nexus by building their capabilities and security networking. The primary motivation for medium powers' strategic drive for autonomy in the strengthening multilateralism has been influenced by their reassessment of the collective security arrangements by the US and its allies. It has also been greatly influenced by the recognition of the disproportionate burdening of the security alliances of the US, the burden of hosting the US bases, and financial expenses.

#### Conclusion

Notably, medium powers alignment with the US in the Asia-Pacific is specifically aimed at enhancing their self-defence capabilities in their maritime zones. The US' allies in East Asia are informed about the US' crisis reliability wherein deterrence and not active conflict is the primary objective. This integrated deterrence is being extended in the Asia-Pacific by conventional technology exchange while retaining the policy of denial for tactical and nuclear acquisition amid real China threat.

<sup>&</sup>lt;sup>65</sup> Komal Khan, "Causal Sequence of India's Drive to Resume Nuclear Testing," *South Asia Journal*, November 13, 2022, <a href="https://southasiajournal.net/causal-sequence-of-indias-drive-to-resume-nuclear-testing/">https://southasiajournal.net/causal-sequence-of-indias-drive-to-resume-nuclear-testing/</a>

<sup>&</sup>lt;sup>66</sup> Ashley J. Tellis, Striking asymmetries: Nuclear transitions in Southern Asia, Carnegie Endowment, July 18, 2022, https://carnegieendowment.org/2022/07/18/striking-asymmetries-nuclear-transitions-in-southern-asia-pub-87394.

The assessment of crisis reliability of the US in the Ukraine conflict has accelerated the process of regional powers indigenous security networking for regionalisation of security.

Reciprocal Access Agreement binds Japan and Australia, and AUKUS weaves Australia, the UK, and the US being the third partner. South Korea and Japan are aligning bilaterally to deter Chinese offense, both are also considering options to go nuclear in order to sustain their survivability. While the US is seen as a credible partner for procurement of advanced defence technologies by the US' partners and allies; at the same time, these security networks provide them with the opportunity to evade the US realm of influence by strengthening their indigenous capabilities in security, defence and economy.

Hence, it is important for the regional states to investigate the long-term impact of integrated deterrence in the form of potential medium power autonomy emanating from strengthened regional deterrence structures in the Asia-Pacific. A concurrent consequence of this strategic reassurance may be witnessed in the form of erosion of the US crises reliability and revision of its permanent executive role in the Asia-Pacific security structure. That will in turn provide an idea about the extent to which these medium powers will be allowed to and can claim strategic autonomy in the emerging multi-polar order. Furthermore, there might be agreeable limitations to which these medium powers will be equipped with capabilities to achieve a credible deterrence and balance of power in the emerging multi-polar order. However, as a downside of this policy, internal disagreement among strategically aligned states has an inherent tendency to international order transformation in the Asia-Pacific security theatre.

# Applying Situational Crisis Communication Theory (SCCT) to Crisis Termination Dynamics in South Asia: An Assessment of Actor Roles and Responses

Muhammad Shareh Qazi\*

#### **Abstract**

applying principles of situational crisis communication theory (SCCT), this research explains crisis termination in follow-up of Operation Swift Retort. India's introduction of surgical strikes, coupled with military mobilisation, has further raised questions on deterrence equilibrium and strategic stability in South Asia. This research establishes that crisis termination after 2019 rests on how each player responds to change in strategic or doctrinal positions of the other. It also explains that Pulwama-Balakot crisis was an ideal test case for SCCT as both states were able to terminate an escalation-intensive environment otherwise termination of crisis without significant escalation. This research also suggests how SCCT can be used in tandem with attribution theory to identify reasons for inadvertent escalation and how SCCT can be an effective tool in eliminating such tendencies in the future. This research identifies factors and reasons behind inadvertent escalation and inability of actors to engage in crisis termination and effective communication. Trust deficit and unilateral alterations to status quo, doctrinal and posture-orientation, are some of the factors explained in this research by applying SCCT. This research concludes that SCCT can be used as a tool to understand

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through the lens of Operation Swift Retort and process of crisis termination thereof.

#### Keywords

Strategic Stability, South Asia, Crisis termination, Situational Crisis Communication Theory, Pulwama-Balakot.

#### Introduction

After India and Pakistan overtly declared their nuclear capabilities in 1998, it was thought that nuclear deterrence would act as a barrier to conventional adventurism by making a full-scale conventional conflict between the two countries prohibitively expensive. South Asia's peace has been successfully preserved through nuclear deterrence, which is based on the principles of reason and awareness of the inherent risk of unforeseen escalation, it is thought that two competing nuclear weapon nations with the capacity to cause each other unacceptable damage will not engage in conventional war<sup>1</sup>. While full-scale war is seen as being far-fetched and highly improbable, two nuclear-armed rival states can find space to engage in limited military action and direct or indirect competition at lower levels of warfare<sup>2</sup>. It also does not discount a growing insecurity paradox where modernisation campaigns for conventional armed forces can likely trigger a quasi-arms race. This environment is further magnified by a consistent inability to maintain sustainable bilateral communication increasing trust deficit between both states.

South Asian security complex is structured around a consistent existence of conflict and crises with escalating tendencies. Pakistan and India have maintained aggressive posturing on the Line of Control. A more recent inclusion of pro-active conventional military doctrines by India has created a new dimension of risk ascendancy but has not yet

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<sup>&</sup>lt;sup>1</sup> James J Wirtz, "How Does Nuclear Deterrence Differ from Conventional Deterrence?," *Strategic Studies Quarterly* 12, no. 4 (2018).

<sup>&</sup>lt;sup>2</sup> Robert Powell, "Nuclear Brinkmanship, Limited War, and Military Power," *International Organization* 69, no. 3 (2015).

traversed beyond limited military objectives.<sup>3</sup> India is investing maximum capital in two things: conventional military upgradation and strategic partnerships for enhanced warfighting, opening space for limited adventurism. This limited war adventurism can be used both for testing capabilities with each modernisation paradigm and to act as probing operations to check weaknesses and thresholds of the adversary.

Crisis termination since 2016 has remained abrupt and has a little impact on how both states can positively transform their aggressive postures to initiate bilateral risk reduction. Termination of crisis without positive transformation maintains possibility of future conflicts and such a possibility can be enhanced if it is perceived to be a source of receiving third-party assistance. For Pakistan and India, inclination to standardise conventional aggression for crisis termination is a volatile and fragile undertaking to achieve deterrence stability but has been a major exercise since Kargil<sup>4</sup>. Where it tends to add more conflict-friendly strategies, it further erodes ability to maintain communication which is a fundamental pillar of nuclear deterrence. Pakistan and India have been able to achieve crisis termination without express third-party mediation but utilisation of aggression is not a sustainable mechanism principally for its ability to serve as a precursor to retributive action.<sup>5</sup>

Post-2016, more specifically during the Pulwama-Balakot episode, crisis termination resonates how conventional adventurism and use of strategies inconsistent with strategic stability have a spiralling effect when it comes to escalation. By being able to match Indian actions, Pakistan was able to construct an equilibrium through denial of advantage which kept pressure on India's tactical dispositions. Moreover, maintaining a non-escalatory posture and adhering to aggressive-defensive strategy meant that crisis termination was achievable without direct third-party intervention as was previously the case between both

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<sup>&</sup>lt;sup>3</sup> Shabnam Gul, Bilal Aslam, and Rabia Nazir, "Evolving Deterrence of Post-Balakot in India and Pakistan: Implications on the Strategic Stability of South Asia," *Journal of Research & Reviews in Social Sciences Pakistan* 4, no. 1 (2021).

<sup>&</sup>lt;sup>4</sup> Michael Krepon, "The Stability-Instability Paradox, Misperception, and Escalation Control in South Asia," in *Prospects for Peace in South Asia*, 1 (2003).

<sup>&</sup>lt;sup>5</sup>, Mansoor Ahmed and Maimuna Ashraf, "The Pulwama-Balakot Crisis." *CISS Insight Journal* 7, no. 1 (2019): 01-24

states. Nuclear signalling was kept linear and though India maintained intimidation through probing activities of its air force, Pakistan did not reciprocate as was perceived. In a worst case scenario, inadvertent escalation or misperceived actions could have triggered more aggressive posturing which could have led to deterrence disequilibrium but Pakistan was able to show restraint in calculating its next move<sup>6</sup>. This restraint not only preserved a stable environment without risking loss of alertness but it also created a cautionary atmosphere in India which also decided not to escalate beyond what had already been done. Use of rhetoric or aggressive policy and political statements did downplay the environment but it did little to hamper strategic stability and escalation control in the situation.

### Warfighting under nuclear overhang

Pakistan and India have a history of confrontation due to long standing territorial disputes. This confrontation and hostility transformed after both states acquired nuclear weapons. Their mutual inability to opt for positive transformation of conflict is supplemented by the fact that their previous engagements have been managed through assistive diplomatic intervention. However, during the immediate past, a conventionally established pattern of assisted transformation of conflict was substituted by conventional aggression without mediators. India opted to introduce surgical strikes into its conventional warfighting to maintain competitiveness and credibility without distressing nuclear deterrence. Despite efforts by Pakistan to deter war at all levels of the conflict India attempts to maintain its options of tactical confrontation without escalating into operational or strategic level clashes.

Delegating crisis management to a third party is inherently unstable since it is reliant on misplaced optimism that mediating party so involved will act before the issue spirals out of hand. This may also increase incentive for rival governments to pursue a policy of brinksmanship. Additionally, a third party's reasons for intervening in a

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<sup>&</sup>lt;sup>6</sup> Sitara Noor, "Strategic Stability in South Asia: The Evolving Challenges and Potential Opportunities for India and Pakistan," *Strategic Studies* 43, no. 1 (2023): 64-94.

crisis may change at any time, increasing the likelihood that rival states may make a mistake that will undermine the strategic stability in the region.<sup>7</sup>

One of the reasons why India and Pakistan were unable to deescalate after Kargil is their reliance on third party mediation<sup>8</sup> and intervention provided sufficient political and strategic leverage for them to continue where the conflict usually left off. Identifying a series of crises between both states indicate willingness of at least one party to keep the option of limited war alive; a dangerous threshold to have between nuclear armed states. This position further changed when India pronounced more aggressive conventional doctrines and an intention to circumvent previously agreed margins drawn within and beyond the Line of Control.

Third party intervention did control escalation but it did not provide any incentive for both states to negotiate or at least agree to a bare minimum risk reduction mechanism. Regular interactions between DG-Military Operations of both states do serve as a risk reduction mechanism but its efficacy has not evolved to more comprehensive mechanisms to prevent conflict escalation in the future. With Pulwama-Balakot on canvas, both Pakistan and India kept third party mediation efforts in the background and resolved to transform the crisis through bilateral actions; a deterrence mitigator not often seen as a hallmark in South Asian conflict dynamics.<sup>9</sup>

<sup>&</sup>lt;sup>7</sup> Devin T. Hagerty, "Deterrence Stability in South Asia Today," in *Nuclear Weapons and Deterrence Stability in South Asia*, (2020): 67-107.

<sup>&</sup>lt;sup>8</sup> Bruce Riedel, "American Diplomacy and the 1999 Kargil Summit at Blair House," *Policy Paper Series* 1 (2002).

<sup>&</sup>lt;sup>9</sup> Naeem Salik, "Recurring India-Pakistan Crises and the Danger of Inadvertent Escalation," *CISS Insight Journal* 9, no. 2 (2021): 01-23.

Sander Ruben Aarten, "Deterrence (In) stability Between India and Pakistan," in *NL ARMS Netherlands Annual Review of Military Studies 2020: Deterrence in the 21st Century—Insights from Theory and Practice*, (2021): 215-230.

Agreeing to joint investigation on the Pathankot incident<sup>10</sup> and a comprehensive legal framework covering the 2008 Mumbai Attacks<sup>11</sup> signalled some confidence between the two states and does provide some ground on which risk reduction and crisis de-escalation can be further developed.

Pulwama-Balakot Crisis as per Stages of Crisis Communication			
	Pakistan	India	
Pre-Crisis	Routine readiness with standardised pre-prepared protocols. Pakistani armed forces maintained adequate readiness but presupposed Indian intrusion to be hypothetical owing to risks involved. Though Pakistan was aware of developments in Indian armed forces after Uri and Pathankot, their initial posture was relaxed towards a possible intrusion by Indian armed forces	Indian armed forces were prepared for escalatory readiness and had sufficient momentum for limited escalation for punitive reasons after Uri and Pathankot incidents. Indicated by their insufficient interest in joint investigations and inability to provide sufficient proof of transnational support for belligerent groups involved	
Crisis	Slow, yet an instantly intensifying escalation and counteractions to Indian actions followed by immediate response and readiness of respective armed forces.  Indicative of each stage of crisis escalation through signalling	Flash escalation leading to limited responses and willingness to respond to Pakistani actions.  Maintained steady levels of readiness and signalling but avoided crossing thresholds	

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<sup>&</sup>lt;sup>10</sup> Muhammad Shoaib Malik and Hafeez Ullah Khan, "Regional Security Threats to Pakistan: A Critical Review," *Pakistan journal of History and Culture* 39, no. 2 (2018).

<sup>&</sup>lt;sup>11</sup> Asia Karim, Sadaf Farooq, and Manzoor Ahmed, "Nuclear Issues, Escalation Control and Stability-Instability Paradox: Case Study of South Asia," *Journal of Security and Strategic Analyses* 3, no. 1 (2017).

	formally communicated to	pre-set within their surgical
	adversary	strike tactics.
Post-Crisis	Rapid de-escalation of crisis situation through positive transformation. Indicative of risk reduction and crisis termination but maintained steady levels of readiness and alertness to indicate willingness to escalate	Maintained gradual de- escalation of crisis but continued to maintain levels of readiness and alertness. Continued with provocative signalling and escalatory behaviour symptomatic of re-escalation. Willingness to escalate or probe further averted by Pakistani quid pro quo

Understanding previous trends in crisis management in South Asia, it is necessary to comprehend how such an escalation occurred and was prevented from becoming a nuclear conflict. Despite the Pulwama episode's unusual aspects, early escalation and eventual resolution followed the two sides' traditionally established dynamics of crisis management. However, the crisis also served as a vivid reminder of growing complexity and difficulties that it presents for de-escalating crises.

Since the two countries conducted nuclear weapons tests in 1998, Pulwama was the fifth significant Indo-Pak crisis. Third parties, mostly the United States, were crucial in brokering a negotiated settlement to each of the past crises. Despite varied degrees of brinkmanship on both sides, India and Pakistan have always welcomed third-party mediation because they perceive it as a bulwark against a full-scale escalation. The goal of their crisis behaviour over the years has actually been to persuade the enemy to yield in face of direct threats from each other as much as it has been to win support from outside sources.<sup>12</sup>

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<sup>&</sup>lt;sup>12</sup> Abhinav Pandya, "The Future of Indo-Pak Relations after the Pulwama Attack," *Perspectives on terrorism* 13, no. 2 (2019); ibid.

India's experience of Uri had an impact on its determination to use force. While it helped to reduce tensions at moment, Pakistan's decision not to respond to the provocation gave India more confidence. In addition, similar to Uri, Pakistan's signalling following the Pulwama attack included both public pronouncements and covert negotiations. Due to the precedent set during the 2016 crisis, this may have further persuaded India that Pakistan would not respond to an Indian strike but may not also yield to allow India strategic advantage. Moreover this time the backing of outside parties to India was greater than it had been in the wake of the Uri crisis. This would have strengthened India's resolve to take action. 13

# Applying Situational Crisis Communications Theory (SCCT) to Pulwama-Balakot crisis: Actor roles and crisis responsibility

Situational crisis communication theory (SCCT) argues that crisis control is a central argument in ascertaining mitigation strategies and clarity in identifying this responsibility is crucial to crisis termination. In the Pulwama-Balakot crisis, India opted to respond retributively because it attributed Pakistan as the actor behind the suicide attack that triggered prospective events. Without supporting data, however, such attribution does not make India a victim of the situation despite being an affected party in the incident. In the SCCT framework, India chose to recall Pakistan's connection to freedom struggle in occupied territories in Jammu and Kashmir in the past. Using this narrative as sufficient grounds for doctrinal modifications, India signalled active implementation of 'surgical strikes' within disputed regions. A declaration of such strikes was made by Indian government after two insurgent strikes in 2016; one at Uri Army Base and another at Pathankot Air Base. For Indian armed forces, organisational reputation during such crises dictated designing more aggressive posturing and implementing doctrines that have a punitive dimension. Posturing as victim during such incidents allows

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<sup>&</sup>lt;sup>13</sup> Tanzeela Khalil, "India-Pakistan Relationship: A Case of Perpetual Instability," *NUST Journal of International Peace and Stability* (2020).

Vinay Kaura, "India's Pakistan Policy: From 2016 'Surgical Strike' to 2019 Balakot 'Airstrike'," *The Round Table* 109, no. 3 (2020): 277-287.

India to maintain a controlling position during crises and favours limited escalation as a response/retaliation rather than a pre-emption.<sup>14</sup>

Pakistan in a SCCT environment chose to see it as a preventable crisis situation where control was to be achieved by reciprocating adventurism through calculated response without following through with the crisis spiral. For Pakistan, Pulwama-Balakot constituted a situational crisis because by offering joint investigation of the Uri and Pathankot incidents and offering assistance in similar crises before 2016, it was able to neutralise the victim narrative generated by India. Within this environment, SCCT dictates that Pakistan opted for a rebuilding strategy where it not only reduced its responses but also signalled intent to deescalate effectively. For India, applying diminishing strategy in SCCT framework served its purpose but its escalatory actions reverted the environment framed under denial strategy; an instance where blame for an incident keeps shifting to other parties without probable cause or credible evidence to support the same.<sup>15</sup>

# Impact assessment of crisis dynamics in South Asia: Indian perspective for victim strategy in SCCT

In three different ways, the Balakot attack and the accompanying crisis may have established deterrence. India's first and most evident method was to 'punish' in order to impose costs on Pakistan by targeting purported terrorist facilities inside Pakistani territories in the hope that they would be forced to reconsider their campaign of unacceptable actions against India. The adversary would only adjust its cost-benefit analysis and change policy if India imposed severe, potentially existential consequences; otherwise, punishment would not be effective. Mild, readily absorbed costs would only serve to reinforce the perfidious Indian revisionist narrative.<sup>16</sup>

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<sup>&</sup>lt;sup>14</sup> W. Timothy Coombs, "Impact of Past Crises on Current Crisis Communication: Insights from Situational Crisis Communication Theory," *The Journal of Business Communication* (1973) 41, no. 3 (2004): 265-289.

<sup>&</sup>lt;sup>15</sup> W. Timothy Coombs, "Protecting Organization Reputations During a Crisis: The Development and Application of Situational Crisis Communication Theory," *Corporate Reputation Review* 10 (2007): 163-176.

<sup>&</sup>lt;sup>16</sup> Iram Khalid, "Management of Pakistan India Conflicts: An Application of Crisis Decision-Making," *Punjab University* (2012).

The second method opted by India by purposefully going over international boundary indicating India's determination to punish Pakistan with escalating and unexpected actions provided India the impetus it needs. India escalated both vertically and horizontally with an airstrike in Balakot, demonstrating its willingness to deploy airstrikes as well as attack a target in undisputed Pakistani territory, rather than in disputed regions. This marked a considerable uptick from the post-Uri situation in 2016, which had already reached a new level of crisis dynamism. India continued to portray the escalation as measured despite never articulating how it defines escalation dynamics during such adventurism. Indian claims that post-2016 strategy of surgical strikes resonates controlled escalation and that it does not violate redlines and thresholds of deterrence are not well founded.<sup>17</sup>

By increasing risk for both sides, the crisis may have contributed to deterrence in a third way. Both sides agreed to de-escalate, after the swift attack and counterattack on February 26 and 27 heightened the possibility of further escalations. Imran Khan, then prime minister of Pakistan, sternly said, "Can we afford a mistake with the weapons you have and the ones we have?" He proposed bilateral discussions and released the imprisoned Indian pilot after announcement in the national assembly. Intimidation based strategies were started in both instances by Indian actions because "India's leader was the unpredictable one." In the event of cost imposition, the Indians believed that this manipulation of risk may control Pakistani behaviour.<sup>18</sup>

The pivotal point in India-Pakistan conflicts lies in whether India acts during the crisis (from conflict to confrontation stage) or responds to the insurgent narrative before the conflict, either by disregarding the provocation or engaging in the crisis (from crisis to conflict stage). This

<sup>&</sup>lt;sup>17</sup> Salma Malik, "Indian Surgical Strike: Implications and Response by Pakistan," *IPRI Journal* 20, no. 1 (2020): 101.

Vinay Kaura, "India's Pakistan policy: from 2016 'surgical strike 'to 2019 Balakot 'airstrike'," *The Round Table* 109, no. 3 (2020): 277-287

<sup>&</sup>lt;sup>18</sup> M. U. Khattak, Muhammad Khan, and Ghulam Qumber, "Evolution of New Indian Military Strategy: Implications for Pakistan," *Margalla Papers* 23, no. 1 (2019): 139.

Masood Ur Rehman Khattak, "The Indian Army's Land Warfare Doctrine 2018: A Critical Analysis," *IPRI Journal* 20, no. 1 (2020).

choice determines the dominant argument. The general assumption, based on past escalations and crises indicated that any Indian military response would start an endless cycle of escalation and both states would lose the capability to control escalatory tendencies. Here, India and Pakistan have demonstrated and shown that workable de-escalation margins exist at later stages of the crisis, which may encourage India to respond militarily in future crises or decisively terminate impending crisis without positive transformation towards future risk reduction. Because it is no longer constrained by worries about the unavoidable escalation and is rather overconfident of its capacity to halt and de-escalate at subsequent stages of its strategy, India may purposefully create more risk. The major risk is that India could find itself hemmed in and forced to escalate rather than de-escalate if it underestimates Pakistan's anticipated reactions.<sup>19</sup>

India may assume it has discovered room for limited conventional strikes without triggering Pakistan's trump card; tactical nuclear weapons, now that it understands how the current crisis began easing without further escalation. In favour of the Cold Start Doctrine, some proponents who once advocated rapid mobilisation and swift, shallow land assaults, might have a resurgence. If India makes realistic Cold Start preparations, it might use those as a symbol of its growing willingness to take risks in a crisis. In the next crisis, a move to show off new mobilisation techniques might amp up that risk to an unheard-of degree.<sup>20</sup>

After the responses in 2016 and 2019, India has demonstrated that it is becoming increasingly militarily aggressive. In contrast to the disputed 2016 raid, Pakistan was forced to respond to India's 2019 attack on Balakot. Next time, with incentives for each side to demonstrate even greater resolution, they might be willing to take even greater risks. It appears that the military reaction has done little other than increase risk. If risk is managed skilfully, it can be beneficial; India believes that risk can help control Pakistani behaviour. But India with few other effective deterrence alternatives, increasingly fascinated by military daring, and

<sup>&</sup>lt;sup>19</sup> Ms Sabeen Malik, "Zafar Nawaz Jaspal, India's 'Surgical Strike' Stratagem," (2019): 109-112.
<sup>20</sup> M. S. Uzzaman, A. Waqar, and M. Amin, "India's Quest to Establish Surgical Strikes as a New Normal."

supported by a trust placed in its diplomatic connectivity and strategic relationship with major global stakeholders, may be lured in by risk-taking competition. A more perilous spiral cannot be discounted in this scenario, and India has a lot to lose because its actions leave little room for Pakistan other than to indicate a possibility of loss of restraint on not using the nuclear option for sake of national security.<sup>21</sup>

The risk of nuclear escalation has generally remained low in South Asia because Cold Start Doctrine and Tactical Nuclear Weapons are seen as effective counterweights against possibilities of any escalation beyond limited adventurism; not discounting the fact that all-out war still remains a plausibility in any military conflict. In contrast to Kargil and the Twin Peaks crisis, when India did not have an aggressive deployment policy for limited incursion in Pakistani territory, Pulwama and Uri were unusual in that there was very little nuclear signalling. This may be due to the fact that both parties wished to avoid using any language that could lead to a nuclear escalation in order to avoid escalating tensions or because the thought prevailed in favour of the argument that prerequisites for a nuclear escalation were not met. Following Pulwama, the escalation's quick pace may have discouraged Pakistan and India from raising the stakes despite indicating some form of readiness and alertness with an intent to escalate to strategic margins. If this is the case, then the escalation process de-escalated naturally and in an organic manner.<sup>22</sup>

Thus, both India and Pakistan consider the cost of nuclear war to be high. All of these arguments support a certain level of nuclear stability. The avoidance of threats that could escalate into nuclear conflict is clearly understood, but in the conventional realms, this motivation is essentially missing (for example, a small incursion into Pakistani territory).

# Crisis responsibility determination through SCCT: Analysing actor behaviour and position in crisis communication

<sup>21</sup> Gulshan Bibi, "India's Surgical Strike: Stratagem, Brinksmanship and Response," *Journal of Security & Strategic Analyses* 5, no. 2 (2019): 145-148.

<sup>&</sup>lt;sup>22</sup> Summar Iqbal Babar and Muhammad Nadeem Mirza, "Indian Strategic Doctrinal Transformation: Trends and Trajectory," *Journal of Security and Strategic Analyses* 6, no. 2 (2021).

The Pulwama-Balakot incident demonstrated the complexity of crisis management, the fragile power dynamics, and the potential risks linked to regional instability. Understanding the complexities of South Asian geopolitics was made possible by Indian and Pakistani responses, their communication approaches, and the actions of the actors. Lessons from this crisis emphasise the value of diplomacy, conflict prevention, and constructive crisis communication in preserving regional peace and stability as both countries negotiate their relationship moving forward.<sup>23</sup>

Political division and military adventurism in contested territories for political gains is not a stable strategy. Political rhetoric and war jingoism since Uri and Pathankot led to the Pulwama-Balakot crisis and such sentiments should not be allowed to seep into military strategy triggering interventionist activities. Both Pakistan and India made an effort to distance themselves from the event afterwards but India was eager to blame Pakistan for the Pulwama-Balakot incident. Pakistan accused India of staging a false flag operation. Amoreover the site of the airstrikes was made accessible to national and international media, a reaction that Pakistan has consistently adopted on violations of the Line of Control. Pakistan put forth befitting response, which effectively undermined false Indian propaganda. Subsequent responses from Pakistan further substantiated that there was "no space" for war between nuclear-armed Pakistan and India. Pakistan also indicated that it will act quickly if its territorial integrity and sovereignty was threatened.

# Takeaways from the Pulwama-Balakot crisis in the SCCT mitigation framework

SCCT observes correlation in how actors respond to crisis situations and what postures they adopt before, during and after a crisis

<sup>&</sup>lt;sup>23</sup> Muhammad Ali and Syed Mussawar Hussain Bukhari, "INDIAN MILITARY DOCTRINE AND ITS IMPACT ON SOUTH ASIA'S STRATEGIC STABILITY," *Margalla Papers* 26, no. I (2022): 74-84.

<sup>&</sup>lt;sup>24</sup> Mansoor Ahmed and Maimuna Ashraf, "The Pulwama-Balakot Crisis," *CISS Insight Journal* 7, no. 1 (2019): 01-24.

<sup>&</sup>lt;sup>25</sup> Imran Khan, "Pakistan Prime Minister Imran Khan Speaks on the Pulwama Attack", (2019): 6-24

Muhammad Feyyaz, "Contextualizing the Pulwama Attack in Kashmir–A Perspective from Pakistan," *Perspectives on Terrorism* 13, no. 2 (2019): 69-74.

situation is created. It also analyses a core component of crisis responsibility as principal factor in determining how each actor may or may not have contributed to escalation or de-escalation of crisis. Pulwama-Balakot incident, including how both states responded to each other's military deployment patterns and political commentary, indicates the following nexus of posturing, response type and role of both states in crisis responsibility:

SCCT Outcomes and Analysis of Actor Behaviour on Crisis Stage						
Trajectory of	Posture Type		Response Type			
Conflict	Pakistan	India	Pakistan	India		
14-02-2019 Pulwama Suicide Attack  [Past experiences guiding strategy (Uri and Pathankot Incidents, Indian surgical strike commitment, Pakistan's aggressive- defensive posturing)]	Bolstering posture due to its willingness not to escalate but maintaining alertness	Diminishmen t posture due to political pressure demanding fulfilment of strategy devised	Gradual escalation with carefully installed deescalation mechanisms to create room for crisis termination. Pakistan continues to reiterate its commitment to joint investigations on non-state actors	Providing excuses and justifications for volatile actions that remain uncorroborated. Non-state actors facilitated by Pakistan have remained a constant narrative since 2008 despite numerous offers by Pakistan to enter into joint investigations		
26-02-2019 Operation Bandar [Balakot Airstrike presumably aimed at targeting a major terrorist facility(No target of consequence	Rebuilding posture seeking compensation and/or apology of said actions	Denial posture aimed at scapegoating	Pakistan not only demanded an apology for transgression of sovereign territory but also indicated threats to strategic stability. Site of said	India continued to claim success of the air strike and propagated actual existence of such targets and their possible connection to previous attack		

was hit and no proof recorded)]			operation was also open to national and international media for verifying any claims made by Indian administration	
27-02-2019 Gradual Escalation of Crisis Situation (Retaliatory but nonlethal targeting by Pakistani Airforce and gradual escalation towards continued breach of airspace, alertness and signalling by both states, downing of Abhinandan's aircraft in Pakistan's territory and friendly fire incidents	Hybrid posture built on rebuilding and bolstering	Hybrid posture on denial and bolstering	Pakistan successfully chose to offer nonlethal signalling terms, captured an Indian air force officer on its territory and maintained readiness and alertness without entering into escalation spiral. Restraint was consistently displayed	India escalated to further intrusions calling Balakot a successful strike. India also opted not to show restraint in adventurism though it was cautious of intensity of escalation of crisis.  Possibility of escalation spiral persisted, though did not manifest
28-02-2019 to 01-03-2019 Crisis Termination and Ascertaining Crisis Responsibility (Claims of use of F-16 and subsequent	Bolstering Posture	Hybrid posture on denial and bolstering	Pakistan continued to attract media attention on the downed Indian pilot, quashed claims of downed F-16 and continued to celebrate	India awarded Vir Chakra to downed Indian pilot, continued to maintain Pakistan's negative role in triggering the conflict but remained sensitive to

downing of an F-16, return of Wing Commander Abhinandan Varthaman and subsequent award of Vir		Operation Swift retort indicating ingratiation as a tool for crisis termination	mishandling the operations and crisis including friendly fire incidents and lack of cohesion
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Indian government)			

#### Conclusion

For assessment, SCCT maintains that crisis termination is hinged upon crisis responsibility and each actor's actions resonate how their behaviour impacts crisis dynamics. For Pakistan and India, trajectory of their behaviours remained consistent between a set of behavioural choices owing not only to the past history of crises but also cognisance of the fact that positive transformation or bilateral engagement for future risk reduction remains missing. Even after the Pulwama-Balakot incident, India continue to avoid engagement and maintain a firm belief in its dispositions; asserting Pakistan's use of non-state entities. Crisis responsibility does not manifest between both states as both equally claim to be in the victim cluster while simultaneously asserting limited confidence of crises between them as being preventable or even accidental. Denial and ingratiation also simultaneously exist within these roles which not only makes addressing root causes difficult but undermines the entire crisis communication process. Though Pulwama-Balakot incident did not have overt third party intervention for crisis termination, introduction of further compartmentalisation creates space for more crises. Risk acceptance or limited adventurism does not serve the SCCT purpose and it also undermines the process which indicates either acquiescence to such a situation as status quo or highlights volatility leading to a possible full meltdown in subsequent crises.

Although it appears that Indian and Pakistani leaders avoided escalating to a worst case situation during the Pulwama crisis, nuclear-armed adversaries usually have situations where they run the risk of

unintended consequences. These hazards may and must be reduced, most notably by promoting stronger bilateral escalation control mechanisms. At the very least, amid emergencies, India and Pakistan should dependably and productively communicate through their direct channels. Also to be urgently taken into consideration are new agreements and confidence-boosting measures aimed at putting in place crisis risk-reduction measures, notably in the nuclear arena. <sup>26</sup>

Even the best crisis management approach is unable to provide a long-term fix. This is only possible through efforts to avert crises. Therefore, proactive efforts to address root causes of crises must be added to crisis management in order to completely eliminate them. The SCCT framework essentially divides crisis management arrangements to a list of options that can be implemented to understand and possibly address frictional notions between Pakistan and India.<sup>27</sup>

<sup>&</sup>lt;sup>26</sup> Saba Hanif, "India's Quest for a Limited War-fighting Doctrine; Analyzing the Sundarji, Cold Start, Joint Doctrine Indian Armed Force and Land Warfare Doctrine," *BTTN Journal* 1, no. 2 (2022): 20-44.

<sup>&</sup>lt;sup>27</sup> Rahat Iqbal, Sajid Iqbal, Muhammad Saeed Uzzaman, Zain Ul Abiden Malik, and Muhammad Munir, "The Reality of Nuclear Bluff in South Asia," *PalArch's Journal of Archaeology of Egypt/Egyptology* 18, no. 10 (2021): 3280-3293.

# Russia's Military Operations in Ukraine and Strategic Implications for 'Fortress Europe'

Ahmed Ijaz Malik\*

#### **Abstract**

The ongoing military operations in Ukraine and the unfolding events have displayed the potential of this conflict to extend conventionally to Europe and placing great powers including the United States of America (US) and China in strategic and tactical confrontation. Tracing the dynamics that contributed to the crisis and confrontations between North Atlantic Treaty Organisation (NATO), European Union (EU), the US and Russia; this article presents an analysis regarding the likely transformation in the US, NATO and EU alliance. The enduring military operation appears to have divided the European states in pursuit of their diplomatic, strategic and economic interests. Based on their economic interests, a few have struck clandestine deals with Russia; while others have criticised the Russian offensive, but have merely offered token diplomatic support to Ukraine. While the conduct of military operations has raised strategic concerns overall for European states, the global military industrial complex has certainly benefitted by selling conventional weapons and technologies to both conflicting parties. It is likely that in case this conflict extends beyond Ukraine; it shall serve the US' grand strategic interests through the direct and indirect employment of its war industry and military means. This is also likely to reinvigorate and strengthen

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US stagnant alliance with Europe and the related moribund military entrepreneurial structures. These strategies are likely to support the long-term designs of re-structuring the international order to US's own strategic and economic advantage against the emerging powers.

## Keywords

Transatlantic Defence Industry, Fortress Europe, Polarity, Bandwagoning, Balancing, Samobytnost.

#### Introduction

Russia's military operations and invasion of Ukraine have created diplomatic, strategic and economic challenges that demand rethinking of the strategic dynamics in the European and North Atlantic region as well as restructuring of diplomatic relations between great powers including the US and China. While Ukraine has intensified its pleas for gaining European support and membership of the European Union; NATO has displayed selective military overtures against Russia. Russia on the other hand, through holding referendum in Crimea, has tried to strengthen its claims over the region and this has led to polarisation of opinions at the international level regarding the possibilities of escalation of this conflict beyond Ukraine. China, without supporting any of the parties, has suggested diplomatic negotiations for peaceful resolution of this conflict. In the academic domain, these events have contributed to the discourse on the New Cold War and transforming nature of great power confrontations. This article focuses on the impact of these events on the security of Europe with emphasis on the possibilities of either further consolidation of the existing European Strategic alliances or the development of Europe's strategic and Transatlantic Defence Industry, a 'Fortress Europe', in collaboration with the US. An inquiry into these trends begins with an analysis of Russia's global geostrategic and economic status, and systematically growing confrontation with the US since the end of the Cold War.

Overall, this era can be divided in two phases: 1990-2001 and 2001 to present with September 11, 2001 (9/11) attacks on mainland US marking the end of first phase as well as the beginning of the second phase. In International Relations (IR) scholarship, these phases have witnessed the rise of discourses debating Unipolar Moment and rising Multipolarity (identifying China, Russia and an economically and militarily consolidated Europe as the emerging 'poles'), transformations in the global trends of war after September 11, 2001 (9/11) and waging of global wars against terror for promotion of liberalism, democracy and capitalism. China has followed a relatively pragmatic global geostrategic and economic policy in the first as well as the initial years of the second phase. It has engaged, cooperated and rationally competed with the US in strategic as well as economic spheres. On the other hand, Russia especially under the leadership of Vladimir Putin has displayed a calculated and gradual, albeit firm resolve to pose resistance to the emerging global geostrategic and economic order led by the US.

The academic discourse during these years has also focussed on the future of Europe evolving as an economic as well as geostrategic 'pole' allied with the US and the United Kingdom (UK). Russia's interventions and interferences in Georgia, Crimea and Ukraine as well as resistance to NATO's expansion have posed challenges to Fortress Europe, a Transatlantic Alliance, which had displayed signs of stagnation due to a gradually increasing gap between the US and EU defence spending and innovations in production and marketing. The Russian invasion of Ukraine in 2022 has fundamentally transformed the

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<sup>&</sup>lt;sup>1</sup> Randall Schweller, "Emerging Powers in an Age of Disorder," *Global Governance: A Review of Multilateralism and International Organizations* 17, no. 3 (2011): 285–97, https://doi.org/10.1163/19426720-01703002...

<sup>&</sup>lt;sup>2</sup> Mohanty, Deba R. "Trends in European Defence Industry: Fortress Europe or Atlantic Defence Industry?" Strategic Analysis 25, no. 4 (year): 585-597.

<sup>&</sup>lt;sup>3</sup>Gompert, David C., Richard L. Kugler, and Martin C. Libicki. Mind the Gap: Promoting a Transatlantic Revolution in Military Affairs. Washington, DC: National Defense University Press, 1999. Also for extensive historical details, comparative and competing arguments on the gap between transatlantic capabilities David C. Gompert, Richard L. Kugler, and Martin C. Libicki, Mind the Gap: Promoting a Transatlantic Revolution in Military Affairs (Washington, DC: National Defense University Press, 1999). Gompert, David C., Richard L. Kugler, and Martin C. Libicki. Mind the Gap: Promoting a Transatlantic Revolution in Military Affairs. Washington, DC: National Defense University Press, 1999.

US-European equation and demands an inquiry into the strategic and economic compulsions of the US as well as Europe. This is also due to the rise of debates regarding the divisions within Europe. There is evidence that major European powers have increased their existing economic collaboration with Russia since the Ukrainian conflict. While diplomatically supporting Ukraine, Germany,<sup>4</sup> France,<sup>5</sup> Belgium<sup>6</sup> and Spain<sup>7</sup> are examples of European states that have clandestinely intensified their economic collaboration with Russia since Ukrainian conflict; Italy, under far-right leader Giorgia Meloni who has been reputed to regard Putin as one of her ideological role models,<sup>8</sup> offered merely limited diplomatic support to Ukraine. While Ukraine had appealed to Europe since the beginning of the conflict; it has also displayed its discontent<sup>9</sup> at the increasing collaboration between European states and Russia.

US expectation of Europe evolving as a military industrial power and a strategic ally faces challenges in view of these divisions within Europe; while the enduring war has led to geo-economics that are likely to increase the already pressing economic as well as strategic compulsions of the European states expecting the protection of their economic, strategic and military interests. However, the ultimate test

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<sup>&</sup>lt;sup>4</sup> "Germany, Russia: Major Insurers Renew Cover for Nord Stream 1 Pipeline," Situation Report by RANE Worldview (Stratfor), April 4, 2023, accessed May 10, 2023,

https://worldview.stratfor.com/situation-report/germany-russia-major-insurers-renew-cover-nord-stream-1-pipeline.

<sup>&</sup>lt;sup>5</sup>Michael Fitzpatrick, "Greenpeace Cries Scandal as France Continues to Import Russian Uranium," Radio France Internationale (rfi), March 20, 2023,

https://www.rfi.fr/en/international/20230320-greenpeace-cries-scandal-as-france-continues-to-import-russian-uranium (accessed April 14, 2023).)

<sup>&</sup>lt;sup>6</sup>Jennifer Rankin, "Belgium's Trade in Russian Diamonds Continues Despite Moral Pressures," The Guardian, November 20, 2022, https://www.theguardian.com/world/2022/nov/20/belgium-trade-russian-diamonds-despite-moral-pressure (accessed April 14, 2023).)

<sup>&</sup>lt;sup>7</sup> Julianne Geiger, "Spain Takes 84% More Russian LNG Than Before the Invasion," Oil Price.com, March 14, 2023, https://oilprice.com/Latest-Energy-News/World-News/Spain-Takes-84-More-Russian-LNG-Than-Before-Invasion.html (accessed April 14, 2023).

<sup>&</sup>lt;sup>8</sup> Benjamin Dodman, "'Mother, Italian, Christian': Giorgia Meloni, Italy's Far-Right Leader on the Cusp of Power," France 24, September 24, 2022,

https://www.france24.com/en/europe/20220924-mother-italian-christian-giorgia-meloni-italy-s-far-right-leader-on-the-cusp-of-power (accessed April 14, 2023).

<sup>&</sup>lt;sup>9</sup> Paul Krantz, "Ukraine Labels German Wholesaler Metro as 'Sponsor of War'," DW News, March 21, 2023, https://www.dw.com/en/ukraine-labels-german-wholesaler-metro-as-sponsor-of-war/a-65046903 (accessed April 14, 2023).

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would be the escalation of this conflict beyond Ukraine which shall most likely place Europe in a critical situation demanding a decision to join one of the strategic camps and consolidate its defence. This article shall focus on such compulsions on Europe. Moreover, in view of Russia's grand strategy under Putin's leadership, the changes in Russian defence and foreign policy and the case for invasion of Ukraine shall also be explained in the relevant section.

In view of the international trends introduced, this article briefly examines the nature of strategic confrontation between Russia and the US in Eurasia. It presents a brief ideological and cultural chronology of Russia's claim over Ukraine. It traces the bases and expectations from Fortress Europe and Transatlantic Defence Alliances and the implications of Russian invasion of Ukraine. It reveals the imposing strategic as well as economic compulsions among European states. It delineates the areas of strategic confrontations between Russia, US and the European states. Finally, it analyses the nature of these confrontations and the impact of the war on Europe in view of the idea of Fortress Europe. In consideration of the present collaborations between European states and Russia, the primary question regarding the feasibility and future of Fortress Europe emerges in view of the risks of military escalation between US and Russia over regional and international common interests. It is argued that in the case of this eventuality, there is a strong likelihood of a reinvigoration of transatlantic military and economic alliance to strengthen Fortress Europe.

## US-Russian confrontation over Eurasia in post-Cold War era

US invasion of Iraq and declared plans to re-structure the global order directly contributed to Russian post-Cold War reassertion. The other significant factor was the new role and stature that President Putin had gradually assumed after Russia shifted from an initial cooperation with US – characterised as bandwagoning with US's post-9/11 global War on Terror (WOT), to a strategic resurgence of Russia at the

international level – characterised as balancing. <sup>10</sup> This expected role of Russia as balancer within the international system was suggested in the Doctrine enunciated by Foreign Minister Yevgeny Primakov who called for closer relations with rising power China with the purpose of enlarging an anti-hegemonic coalition of states. <sup>11</sup> Russia's concerns and reaction may not be regarded as misplaced or unfounded, as it has been critically argued that the US and its European allies share responsibility for the Ukrainian crisis that led to all-out war. The primary causes were the systematic and consistent enlargement of NATO, EU's eastward expansion beginning with Ukrainian Orange Revolution and the overthrow of democratically elected, pro-Russia Ukrainian President Viktor Yanukovych. This overthrow was termed as an illegal coup by Putin. <sup>12</sup> The US and EU misjudged Russian intentions, in their efforts to project and promote Ukraine as a rising liberal democratic frontline state having the potential to challenge Russia.

These Western policies combined with rhetoric of democracy promotion appeared provocative to Putin, especially in view of NATO's intentions since 2008 to include Georgia and Ukraine. Although Russia communicated its concerns and interests in the region prior to its aggressive response and invasion of Georgia the same year; these did not receive the expected level of concern from US and its European allies. The lack of concern by US of Russia's gradually mounting aggressiveness was partly due to conviction that defence of European states against Russia will be attained through NATO's enlargement, engaging EU states in collaborative military defence infrastructure (with US) and in the long-term promoting democracy and neoliberalism in erstwhile Soviet influenced states. These preferences and expectations

<sup>&</sup>lt;sup>10</sup> John A. Vesquez, "The Realist Paradigm and Degenerative versus Progressive Research Programmes: An Appraisal of Neotraditional Research on Waltz's Balancing Propositions," The American Political Science Review 91, no. 4 (December 1997): 904-906.

<sup>&</sup>lt;sup>11</sup> Thomas Ambrosio, "The Russo-American Dispute over the Invasion of Iraq: International Status and Role of Positional Goods," Europe-Asia Studies 57, no. 8 (December 2005): 1189-1196.

<sup>&</sup>lt;sup>12</sup> Chengyi Peng, "Why the Ukraine Crisis Is the West's Fault: A Historical and Philosophical Perspective," International Critical Thought 7, no. 2 (2017): 267–78, https://doi.org/10.1080/21598282.2017.1316436.

lingered from 2008 to the crisis prior to Russia's military operations and invasion of Ukraine in 2022.

While on the other hand, in continuation of the post-911 trend of justifying international use of force; Russia resorted to developing it own discourses suggesting commonalities and divergences among Slavic and European identities, building cultural and historical claims over Ukraine and Crimea and highlighting the necessity for Russia to ideologically and strategically resurge<sup>13</sup> and regain its prominent global status of the Cold War years under Putin's unified and strong leadership. In the next section Putin's role in promoting a grand strategy for Russia and building a case to occupy Ukraine is explained.

### Russia's policy towards EU and Ukraine under Putin's leadership

Russian leadership in recent history, especially under Gorbachev have maintained the notion of a 'common European home', while Yeltsin continued the Moscow-Berlin Rapprochement, which resonated in Putin's speech in German language at Bundestag in 2001. However, in the practical sense the various modernisation projects initiated especially by Medvedev did not materialise. This is also indicative of the scepticism and concern of Russian leadership towards EU's redefinition of 'self' through the prism of democracy. The Ukrainian conflict appears to have magnified the conflicting and contending philosophical bases recently emerged and finding their voices at the core of EU's and Russia's foreign policies.<sup>14</sup> This philosophical conflict appears to boil-down to EU's inability to accept Russia as a peculiar admix of representation, aristocracy and benign dictatorship on one hand; confronted with Russia's unwillingness to include EU's newly defined norms and institutional standards, on the other hand. These philosophic-theoretical questions have been analysed through the theoretical lens of realism,

2023), 27-28.

<sup>&</sup>lt;sup>13</sup> Steven Lee Myers, The New Tsar: The Rise and Reign of Vladimir Putin (Chapters 7, 20 and 25) (London and New York: Simon & Schuster, 2015),

<sup>&</sup>lt;sup>14</sup> Andrey Makarychev, "Russia and/Versus the EU: From Post-Political Consensus to Political Contestations," Centre International de formation européenne, Winter 2014, https://www.cairn.info/revue-l-europe-en-formation-2014-4-page-27.htm (accessed April 12,

neoliberal institutionalism as well as constructivism; the practical observation of conduct and outcomes of Ukrainian conflict suggest a selective radical Russian approach of de-legitimisation of institutions, building of a bio-politically biased discourse appealing for a need to eradicate the infectious bacilli, reclaiming the trans-border bio-political (suggesting state's regulatory authority over human bodies rather than territories) Russian World,<sup>15</sup> and employing the use of tactical soft and hard power. The use of derision and branding of adversary with derogatory terminology appears as a reaction to the Cold War narrative terming USSR as 'evil' empire.

However, an enriched and theoretically evolved explanation of modern turn in Russian world view developed through the contribution of Statistical, Civilisational and Westernised discourses on national values and the image of 'national' epitomised by *samobytnost* (national distinctiveness) which is strengthened by West's actions that contribute towards the vocalisation of Russia's ontological insecurity and the expected role that Russian state may assume. <sup>16</sup> On the other side, Neumann argues that since the last two phases of renaissance, including Quattrocento (fifteenth century) and Cinquecento (sixteenth century) there remained a relative concern and bias towards Russia broadly among the European cultures. No significant attempts had been made to understand the peculiarities of Russian culture or include Russia within Europe on the basis of its political socialisation. The European representation of Russia, quite similar to the role of cultural factors in

<sup>&</sup>lt;sup>15</sup> Andrey Makarychev, "Russia and/Versus the EU: From Post-Political Consensus to Political Contestations.28-30.

<sup>&</sup>lt;sup>16</sup> Andrey P. Tsygankov and Pavel A. Tsygankov, "Constructing National Values: The Nationally Distinctive Turn in Russian IR Theory and Foreign Policy," *Foreign Policy Analysis* (2021), 1-5. (*Statists* seek West's recognition by laying emphasis on economic and military capabilities advocating a combination of assertive, defensive and varying structures of alliances in foreign policy. *Civilisationists* view Russia as a distinct civilisation with authentic system of values albeit having a commitment to Orthodox Christianity as well as the Eurasianists synthesis of various religions. *Westernisers* place emphasis on Russia's similarity with Western nations regarding the West as the viable and progressive civilisation.) Also see Margot Light, "In Search of an Identity: Russian foreign policy and the end of ideology," *Journal of Communist Studies and Transitional Politics*, 19, no. 3, (2003), 43-52. For ontological insecurity also see Jennifer Mitzen, "Ontological Insecurity in World Politics: State Identity and Security Dilemma," *European Journal of International Relations*, 12, No.3, 341-370.

world politics faced essentialisation on one hand and accusation of irrelevance on the other. The significant strands since the nineteenth century European strategic discourses have portrayed Russia as a power grasping for hegemony, as a barbarian at the gate, striving to restructure the notion of European balance of power.<sup>17</sup> The reactions to these biases resonated in the perceptions and discourses of Russian leadership.

Since 2008 NATO had displayed intentions of expansion eastwards and Russian Foreign Minister Sergey Lavrov has accused EU of striving to forge a sphere of influence in Eastern Europe. From a constructivist point of view, Russia instead of directly challenging EU and US's hegemony has waged a war of position whose parameters are delineated by a hegemonic influence, and in this manner has systematically acted as 'agency' by challenging EU's authority to redefine the normative meaning of 'Europe'. He likely European reaction in case of the risk of an extended conflict initiated by Russia may be EU consolidating with the historical and normative familiarity.

The discourse advocating a war on Ukraine also capitalised on the conflict in Donbas where hostilities between the pro-Russian and Ukrainian forces led to mass killings termed as genocide by Putin, in turn claiming a responsibility to prevent such incidents in future and advocating the demilitarisation and denazification of the Ukrainian government. By waging military operations, Russia appears to have gained in the manner that it has managed to drag Ukraine, US and European as well as Asian states in a conflict where they are forced to accept the dynamics of conflict and the economic costs necessary to maintain a degree of stability in Eurasian region. Russia appears to have

<sup>&</sup>lt;sup>17</sup> Iver P. Neumann, Uses of the Other: "The East" in the European Identity Formation, Chapter 3, "Making Europe: The Russian Other" (Minneapolis: University of Minnesota Press, 1999), 65-117.. Also Iver P. Neumann, "Self and Other in International Relations," *European Journal of International Relations*, 2, No. 2, 139-174.

<sup>&</sup>lt;sup>18</sup> Mearsheimer, "Why Ukrainian crisis is the West's fault," 3.

<sup>&</sup>lt;sup>19</sup> Viatcheslav Morozon and Bahar Rumelili, "The external constitution of European identity: Russia and Turkey as Europe Makers," *Cooperation and Conflict*, 47, No. 1, 28. ttps://www.jstor.org/stable/45084683.

<sup>&</sup>lt;sup>20</sup> "'Smells of Genocide: How Putin Justifies Russia's War in Ukraine'," Al Jazeera, March 9, 2022, https://www.aljazeera.com/news/2022/3/9/smells-of-genocide-how-putin-justifies-russias-war-in-ukraine (accessed January 11, 2023).)

maintained the Ukraine conflict as a leverage to negotiate with European states as well as South Asian states. Through a consistent reference to the possibility of the conflict escalating to the nuclear level, Putin has been trying to impose strategic preferences on US and Europe.

Putin's orientation of nuclear bargaining and crisis causation during the Cold War years resonates in his discourse and approach towards the parties in Ukrainian conflict.<sup>21</sup> However, the fundamental change in post-Cold War and post-9/11 eras is the radically transformed nature of nuclear order – referred to as nuclear (dis)order. The key factors likely to influence the upcoming nuclear (dis)order are the shifting relations between great powers, emerging regional nuclear equations, uncertainty surrounding nuclear arms control and disarmament, erosion of credibility of extended deterrence guarantees and the ongoing revolutions in information, communications, remote sensing technologies as well as social media biases having the potential to disturb and confuse the existing perceptions, ethics and norms of nuclear crisis bargaining.

The structure of existing global nuclear order suggests a complex of triangular associations where US, China and Russia appear to be a central triangular structure; while themselves being connected in complex and overlapping structures such as China's involvement with India and Pakistan as well as DPRK and US interests. Similarly, the US exercises strategic influence in European nuclear scenario as well as in South East Asia while Russia's remains interested in maintaining influence in DPRK stand-off. In its National Defence Strategy and the Nuclear Posture Review (2022), US had identified Russia as a capable and diverse nuclear rival with sub-strategic weapon capabilities that pose formidable threats to US interests.<sup>22</sup> The employment of such weapons by Russia to raise the level of escalation in Ukrainian conflict primarily has the ability to impose urgency upon the US to upgrade the level of deterrence.

<sup>&</sup>lt;sup>21</sup> Rose McDermott, Reid Pauly, and Paul Slovac, "Putin and the Psychology of Nuclear Brinkmanship," Foreign Affairs, May 30, 2023, https://www.foreignaffairs.com/ukraine/putin-and-psychology-nuclear-brinkmanship (accessed July 17, 2023).

<sup>&</sup>lt;sup>22</sup> Naeem Salik, "Emerging Nuclear Dis-Order?" Monograph Series No. 2, *Strategic Vision Institute*, August 2023. 11-14.

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Since Russian invasion of Ukraine, US has provided Ukraine with M1A1 Abrams tanks, HIMARS artillery rockets and Patriot Missile Defence Systems and Norway, Denmark and Netherland have been allowed by President Biden to supply F16 fighter jets to Ukraine. Russian deployment of tanks in Belarus has heightened the degree of escalation. <sup>23</sup> In addition, UK France, Germany and Poland have provided weapons to Ukraine <sup>24</sup> and Russia has also deployed nuclear weapons in Belarus. <sup>25</sup> All of these developments in view of the possibility of the conflict conventionally proliferating beyond Ukraine compel US and EU states to address their strategic defence. In the next section, a brief history of strategic alliance between US and Europe and the emerging compulsions in view of confrontation with Russia over Ukraine are explained.

### Fortress Europe: past and present

Since its inception European Union had planned creating a European Defence Technological and Industrial Base (EDTIB) primarily as an industry directed towards collaborative research in military technology. The initial purpose was consolidation of European defence market by collectively devising plans for innovation, capitalising on dualuse production in aerospace, missiles and electronics. It aimed at minimising specific inefficiencies among different domestic European producers and firms and creating competitive and financially productive consolidated industry and market. EDTIB also expects to reduce the dependence on robotics and block chain technologies produced by US and Israel.<sup>26</sup> The other greater purpose naturally to follow was innovation

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<sup>&</sup>lt;sup>23</sup> Salik, "Emerging Nuclear Dis-Order?".,17.

<sup>&</sup>lt;sup>24</sup> "Which Countries Are Sending Heavy Weapons to Ukraine, and Is It Enough?" *Euronews*, March 5, 2023, https://www.euronews.com/2023/03/05/which-countries-are-sending-heavy-weapons-to-ukraine-and-is-it-enough (accessed November 20, 2023).

<sup>&</sup>lt;sup>25</sup> "Bluffing or Not, Putin's Declared Deployment of Nuclear Weapons to Belarus Raises Tensions," Associated Press News, July 27, 2023, https://apnews.com/article/russia-ukraine-war-belarus-putin-nuclear-3bc2aefef4ee6b4478c81ae76bebdd4e (accessed November 20, 2023). <sup>26</sup> Keith Hartely, "Creating a European Defence Industrial Base," Security Challenges 7, no. 3

<sup>(</sup>Spring 2011): 95-111.Permanent Structured Cooperation (PESCO), Coordinated Annual Review on Defence (CARD) and European Defence Fund (EDF) offering 1.5 billion Euros were launched from 2017 and 2020 respectively, for organising resources and promoting common projects. Collectively the European projects included Joint Tactical Information Distribution System (JTIDS), creation of Joint Strike Fighter (JSF), Sweden's Det Nya Forsvaref (translating

in arms production enhancing the margin of profit through trade as well as heightening the defence as well as offense capability of EU. In the perspective of post-Cold War emerging international order, an economically productive and strategically consolidated Europe was regarded as a source of transatlantic armament cooperation as well as a bargaining leverage in return for supporting – at considerable financial cost – the international order promoted by US, where the Network Centric Warfare (NCW)<sup>27</sup> included global wars as fundamental to its grand strategy.

More innovative developments in strategic domain included Franco-British Storm Shadow cruise missiles, Brimstone anti-tank missile, Eurofighter combat aircraft, German Taurus guided missiles, French Galileo global navigation satellite system and European Unmanned Aerial Vehicle and Scalp Cruise Missile systems. The dominant presumption among a majority of European leaders was that by collaborating with and supporting the US in its ambitions of implementing new international order; Europe will gradually minimise its dependence on the US<sup>28</sup> and duly emerge as a economically collaborative arena<sup>29</sup> and a strategic player at the global level<sup>30</sup> and

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as The New Defence), UK's Future Rapid Effects System (FRES), European Security and Defence Policy (ESDP), European Aeronautical Defence and Space Company (EADS), building Stand Off Surveillance and Target Acquisition Radar (Sostar), developing European Security and Defence Policy (ESDP), UK's Future Soldier Technology Programme (FIST), Organisation for Joint Armament Cooperation, termed in French as Organisation Conjointe de Cooperation in Matiere d'Armament (OCCAR), European Technology Acquisition Programme (ETAP), European Defence Agency (EDA), European Defence Equipment Market (EDEM), Medium Extended Air Defence System (MEADS) are among the foundational projects and capabilities. Also see Margriet Drent and Dick Zandee, "More European Cooperation: The road to European Defence Industry?," Clingendael Institute, 2018, 1-11.

<sup>&</sup>lt;sup>27</sup> Andrew D. James, "The Defence Industry and 'Transformation': A European Perspective," Security Challenges, 4, no. 4, (2008),: 39, https://www.jstor.org/stable/26459805

<sup>&</sup>lt;sup>28</sup> Seth G. Jones, "The Rise of a European Defence," *Political Science Quarterly*, 121, No. 2( 2006): 241-267, http://www.jstor.org/stable/20202687

<sup>&</sup>lt;sup>29</sup> For details on possibility of Transatlantic Free Trade Area/Agency (TAFTA) see Jens Van Scherpenberg, "Transatlantic Competition and European Defence Industry: A New Look at the Trade-Defence Linkage," *International Affairs*,73, no. 1, (1997):pp. 99-122. Also Charles A. Kupchan, "Reviving the 'West', *Foreign Affairs*,75, no. 3 (1996): 99.

<sup>&</sup>lt;sup>30</sup> Robert Kagan, *Of Paradise and Power: America and Europe in the New World Order* (New York: Alfred A. Knopf, 2003). Also Robert J. Art, "Why Western Europe Needs the United States and NATO?" *Political Science Quarterly* 111, (1996): 1-39.

subsequently be able to balance the long-term financial and diplomatic costs of this collaboration. However, since 2014, NATO and its allies had agreed to increase their defence spending to two percent of their GDP for the next ten years, but this has remained controversial.<sup>31</sup> A majority of European states had not been spending the amount of their GDP as much as US; and UK especially had not agreed to transform its forces according to US plans. The most significant developments towards assertive European military strategies was the creation of Western European Armament Group (WEAG) and Western European Armament Organisation (WEAO), which through the support of NATO had set their goals of promoting cooperative procurement, research in defence and technology, synchronising defence policies to create European Defence Equipment Market and the ambitious expectation of creating of European Armament Agency.<sup>32</sup> However, the compulsion of developing and expanding such an agency may have appeared logical in case of a major war in close proximity of Europe. The Russo-Ukrainian conflict and risks of its expansion towards Western Europe may justify the need for such strategic policy changes.

In post-9/11 era, the frictions and divisions among European states over US-led Iraq war 2003 forced analysts to suggest that there is an increased motivation for development and consolidation of independent defence capabilities such as EU military staff, battle groups.<sup>33</sup> The Russo-Ukrainian conflict was relatively unexpected for US and Europe. The gradual expansion of conventional conflict and heightened level of devastation of non-military installations causing civilian casualties has added a perception among European leaders that such high intensity conventional wars are likely to form a trend in future international order. Such wars are likely to drastically transform the existing strategic power patterns, leading to military as well as strategic

<sup>&</sup>lt;sup>31</sup> "NATO: Why Is Spending 2% of GDP on Defence So Controversial?" Euronews, https://www.euronews.com/2023/04/07/nato-why-is-spending-2-of-gdp-on-defence-so-controversial (accessed April 14, 2023).

<sup>&</sup>lt;sup>32</sup> Stephen Markowski and Robert Wylie, "The Emergence of European Defence and Defence Industry Policies," Security Challenges 3, no. 2 (June 2007): 45-46.

<sup>&</sup>lt;sup>33</sup> Jones, "The Rise of a European Defence," 266.

re-emergence of anti-US hegemony forces.<sup>34</sup> This view counters the earlier perception that drifting apart of the transatlantic coalition may be expected.<sup>35</sup> The new realisations are likely to intensify the perceived need to enhance their own collective defence capabilities and alliance with the US. Ironically, the war in Ukraine is serving this purpose. European states are increasingly concerned about Russia's strategic ambitions in view of the recent chains of military coups in Africa, where Europe perceives rise of Islamic branded rogue organisations as well as Russia's gradually increasing military influence as parts of a chain of events directed towards exploitation of low intensity conflicts.<sup>36</sup> In view of these conflicts, the risks of war in Ukraine leading to great power confrontation appear real. At the ASEAN summit in September 2023 Chinese Premier Li Qiang warned of the possibility of a 'New Cold War', hinting at China's concern of US-supported strategic blocs being created in South Asia and Asia Pacific.<sup>37</sup> European states perceive the greatest risk in post-Cold War and the post-9/11 era as active war has been brought to its doorstep.

War is no more a misfortune of the destitute and down-trodden of the third world that Europe could view from a distance, offering symbolic sympathy. Such biases were highlighted when international reporter for CBS Charlie D'Agata made a misplaced comparison between war in Ukraine and the lingering war in Afghanistan by suggesting that such devastation is shocking in Ukraine since it is relatively European state and a part of the civilised world. Similar allusion suggesting European features and appearance and notion of developed civilisation were made by European reporters and Ukraine's former deputy prosecutor general.<sup>38</sup>

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<sup>&</sup>lt;sup>34</sup>Daniel Salisbury, "Ukrainian War: Two Good Reasons the World Should Worry About Russia's Arms Purchases from North Korea," The Conversation, September 4, 2023, https://theconversation.com/ukraine-war-two-good-reasons-the-world-should-worry-about-russian-arms-purchases-from-north-korea-212714 (accessed September 7, 2023).

<sup>&</sup>lt;sup>35</sup> Jones, "The Rise of a European Defence,", 267.

<sup>&</sup>lt;sup>36</sup> William Rampe, "What Is Russia's Wagner Group Doing in Africa?" Council on Foreign Relations, May 23, 2023, https://www.cfr.org/in-brief/what-russias-wagner-group-doing-africa (accessed August 25, 2023).

<sup>&</sup>lt;sup>37</sup> "At ASEAN Summit, China Warns Against a 'New Cold War'," Daily Dawn, September 7, 2023, https://www.dawn.com/news/1774504/at-asean-summit-china-warns-against-new-cold-war (accessed September 7, 2023).

<sup>&</sup>lt;sup>38</sup> Moustafa Bayoumi, "They Are 'Civilised' and 'Look Like Us': The Racist Coverage of Ukraine," The Guardian, March 2, 2022,

However, the relative disbelief and concern among European states as a result of Russian military operations in Ukraine is significant.

#### Conclusion

The European Defence Agency's Long-Term Vision (LTV) for European defence capability and needs recommended four axes. This included synergy composed of combined warfare in collaboration with nongovernmental organisations, agility comprising rapid and deployable tactical and strategic capabilities, selectivity in creating a diverse range of options for policy and military planners and sustainability through development of a network of logistic support. It is further claimed that the Asian powers led by China, Russia and North Korea have increased their wealth and military power and are spending more than Europe. The trends have reduced West's military and geostrategic superiority. This makes it necessary for US to respond to China's strategic rise. The 'Revolutions' in Military Affairs are likely to turn into 'Evolutions' by 2025. Counterintervention systems (anti-access, anti-denial), remote-controlled weapon systems (unmanned vehicles/drones) and directed-energy weapons (plasma beams, lasers or fire at near the speed of light) are technologies for which great powers are competing. Another rapidly advancing sector is cyber warfare. In case such technologies are employed in future warfare close to Europe's borders; Europe will have to compete and advance in all these spheres, as well as update its military arsenal including assault ships, nuclear submarines and aircraft carriers.<sup>39</sup> The gradual stagnation and decline in European defence industry has been a result of the widening gap between US defence programme and Europe's inability to rise as a defence production partner.

Moreover, the positive spill over effects of US military and economic primacy have continually sustained its competitive strength and

https://www.theguardian.com/commentisfree/2022/mar/02/civilised-european-look-like-us-racist-coverage-ukraine (accessed December 6, 2023).

<sup>&</sup>lt;sup>39</sup> European Union Institute for Security Studies (EUISS), Enabling the Future, Strategic Trends and Developments 2013-2025, European Military Capabilities 2013-2025: Challenges and Avenues (2013), 19, 21-24.

technological lead.<sup>40</sup> In addition, the intra-EU dynamics<sup>41</sup> and rivalries overshadowed the expected co-development and co-production.<sup>42</sup> US defence industry has been systematically dissolving into civilian high-technology industries, attaining commercial competitiveness, however, despite military demand; the prospects of an evolving civilian market remained minimal. With modern warfare shifting to Information Technology the demand for hard core military technologies appeared to be further reduced.<sup>43</sup> Ironically, post-911 US global wars as well as the lingering war in Ukraine has contributed to the theoretical explanations that observe global Ukraine.

Ukraine's domestic situation does not present a picture of strength and stability. Since Volodymyr Zelensky's rise to Presidency, Ukraine has gone through political, economic turbulence and now facing a lingering war, displays evidences of a fragile and rapidly crumbling state that does not portray the image of a state capable of rising as the example of model free and prosperous state according to the Western standards. Zelensky's Presidential campaign had been supported by business oligarch Ihor Kolomoisky, who faces cases of financial fraud and money laundering, and is himself under investigation in the US. Zelensky's political decisions have been influenced by Kolomoisky making it more difficult to implement the anti-corruption agenda of his party.<sup>44</sup> This highlights the domestic problem of corruption that Ukraine confronts and is likely to weaken its plea to join EU. The recent sacking of Defence Minister Oleksii Reznikov over corruption involving military contractors is indicative of the degree to which the state infrastructure is hostage to corrupt corporates.45

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<sup>&</sup>lt;sup>40</sup> Jens Van Scherpenberg, "Transatlantic Competition and European Defence Industry: A New Look at the Trade-Defence Linkage," International Affairs 73, no. 1 (January 1997): 100.

<sup>&</sup>lt;sup>41</sup> Stephen Markowski and Robert Wylie, "The Emergence of European Defence and Defence Industry Policies," Security Challenges 3, no. 2 (2007): 35-36.

<sup>&</sup>lt;sup>42</sup> Jones, "The Rise of a European Defence," 242.

<sup>&</sup>lt;sup>43</sup> Scherpenberg, 102-103.

<sup>&</sup>lt;sup>44</sup> Stephen Mulvey, "Ukraine's Volodymyr Zelenskyy: The Comedian President Who Is Rising to the Moment," BBC News, February 26, 2022, https://www.bbc.com/news/world-europe-59667938 (accessed December 12, 2022).

<sup>&</sup>lt;sup>45</sup> Leila Fadel and Brian Mann, "Ukraine's President Volodymyr Zelensky Sacks the Country's Defence Minister," National Public Radio, September 4, 2023,

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The US and its allies should, acting rationally, discard the plans to democratise or Westernise Ukraine, instead enable it to remain as a buffer between EU supported by NATO and Russia. Ukraine expected to achieve economic progress by adopting the US model of democracy and capitalism without facing the threat of Russian aggression and invasion, necessitating strong military support from the US to mitigate these risks. From a realist perspective, the results of the conflict show that Ukraine may have benefitted from maintaining a minimum level of military and strategic capability despite guarantees and economic alternatives suggested by US. This war appears to suggest the same to European states as well, especially erstwhile empires and military powers with global reach, such as Germany and France.

Ukraine and Russia have remained united for centuries. The Russian history and religion have been intertwined and originated from the Kievan-Rus. Attaining a stable peace could be facilitated by Europe, the US, NATO, and the Ukrainian government if Ukraine is granted a status akin to that of Finland. This status would involve diplomatic collaboration with Western European states and the prevention of direct confrontation with Russia."<sup>47</sup> The Ukraine conflict has challenged the Cold War-era perception of global conflict being confined to Europe and the West. The significant impact on a large population by the devastation of war was typically associated with impoverished developing nations susceptible to chronic, low-intensity conflicts and proxy wars orchestrated by the Super Powers. This overall psychological effect and the actual risks of war cannot be underestimated, as in case of further escalations beyond Ukraine; EU is likely to consolidate its fortress, which in turn shall render support to US in its global grand strategy.

https://www.npr.org/2023/09/04/1197528512/ukraines-president-volodymyr-zelenskyy-sacks-the-countrys-defense-minister (accessed September 6, 2023).

<sup>&</sup>lt;sup>46</sup> Mearsheimer, 10.

<sup>&</sup>lt;sup>47</sup> Robert Hunter Wade, "A Diplomatic Solution to the War in Ukraine," LSE European Politics and Policy (EUROPP) Blog, February 2, 2022, https://blogs.lse.ac.uk/europpblog/2022/03/02/a-diplomatic-solution-to-the-war-in-ukraine/ (accessed April 11, 2023).

## **Emerging Nuclear Countries and International Cooperation: What can Pakistan Offer?**

Noreen Iftakhar\*

#### **Abstract**

Nuclear energy is a clean, reliable, and sustainable mode of energy that can help to reduce the impact of climate change. Under the pressure of reducing dependence on fossil fuels by achieving zero carbon emissions and searching for a secure and sustainable mode of energy, many countries, for the first time, are exploring nuclear power as a source of energy. Known as emerging nuclear countries or embarking, countries like Bangladesh, Turkey, and Egypt have initiated nuclear power programmes to diversify their energy mix. On the premise that established countries can assist newcomers in setting their nuclear power programmes, this study elaborates on emerging nuclear power countries and how, through bilateral and multilateral cooperation, Pakistan can help these countries. Since Pakistan has abundant experience in the entire life cycle of a Nuclear Power Plant, from site selection to decommissioning, from reviewing the licensee's submission to the entire oversight programme of NPP including preparing and implementing technical regulations, it has the potential to assist emerging countries. Having a spotless nuclear power programme with the existence of an independent nuclear regulatory body, there is a need for a conscious effort by policymakers to invest in making a lucrative offer to nuclear newcomers. Opening its educational and training

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institutes for hosting participants from emerging countries, attachment of its technical officials for short term with relevant organisations in emerging countries, and provision of assistance in technical areas are some of the prospective areas for Pakistan to 'shift from Recipient to Supplier state'...

## Keywords

Emerging Nuclear Countries, International Cooperation, Nuclear Power, Pakistan.

#### Introduction

The world is facing unprecedented challenges and crises due to unequal economic growth, the extreme impact of climate change, and extraordinary security threats. With the rise of fuel prices, energy security in case of conflict, and pressing demands for zero carbon emission; there is a growing demand to counter these challenges and move ahead in pursuit of a better living place for mankind.

Nuclear as a source of energy is being explored by many countries since the 1960s. However, currently many countries are entering or aspiring to enter into nuclear power programmes to have diverse sources of energy by reducing dependence on depleting fossil fuels and contributing to the goal of zero carbon emission. Nevertheless, for those countries, referred to as embarking/emerging/newcomers<sup>2</sup>, exploring nuclear options as a source of energy may not be possible without international assistance and cooperation. At the global level, International Atomic Energy Agency (IAEA), which falls under the UN system, provides a platform for its members to cooperate in harnessing the peaceful application of nuclear technology by supporting their nuclear energy planning.

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<sup>&</sup>lt;sup>1</sup> Katherine L. Smith RetoGieré, Why Some Nations Choose Nuclear Power, 23 June 2017, Kleinman Center for Energy Policy, <a href="https://kleinmanenergy.upenn.edu/wp-content/uploads/2020/08/Why-Some-Nations-Choose-Nuclear-Power">https://kleinmanenergy.upenn.edu/wp-content/uploads/2020/08/Why-Some-Nations-Choose-Nuclear-Power</a> 0-1.pdf

<sup>&</sup>lt;sup>2</sup> Emerging Countries are those countries which are planning and initiating nuclear power programs. These countries may have prior experience in nuclear non- power sector yet they may be new in nuclear power.

Pakistan, one of the founding members of the IAEA, has always striven for international cooperation and collaboration for the peaceful uses of nuclear technology.<sup>3</sup> Pakistan's contributions towards global nuclear safety and security regime through IAEA are twofold: scientists and engineers from Pakistan are contributing to the Agency's work and Pakistan has also been hosting various IAEA sponsored events for national as well as regional capacity building in peaceful uses of nuclear energy. 4With this background, this paper aims to explore how national institutions and organizations in Pakistan can offer assistance to other countries in achieving safe, sustainable, and reliable sources of energy i.e. nuclear energy. This aim will be accomplished by conducting a critical review of Pakistan's existing nuclear cooperation with other countries and international organizations. It will involve assessing Pakistan's collaborations, particularly with nations newly venturing into nuclear capabilities, evaluating the areas in which Pakistan can contribute to such collaborations, and ultimately proposing strategies to elevate Pakistan's status from a 'recipient' to a 'supplier' state in the realm of nuclear affairs

This paper employs qualitative, historical, and analytical approaches to carry out this research. To unfold relevant information, primary sources including documents and official reports have been studied, and discussions have been conducted with subject experts. Also, secondary sources that include books, research articles from journals, periodicals, and journalistic accounts from newspapers and magazines have been used. Based on the deductive approach, specific observations were drawn to prove the hypothesis of the study.

For better organisation, the study is divided into three sections. Section one discusses the nuclear aspirations of emerging countries and the role of the IAEA as a multilateral cooperation forum for facilitating

<sup>&</sup>lt;sup>3</sup> "Pakistan Showcases Gains in Peaceful Use of Nuclear Technology at Vienna, Austria," *PakAtom*, January 2021 - September 2021. Available at:

https://paec.gov.pk/Documents/PakAtom/P%201-8%20Jan%20-Sept%202021.pdf

<sup>&</sup>lt;sup>4</sup>"Pakistan gets elected to the IAEA Board of Governors", *Ministry of Foreign Affairs*, Islamabad,20 September 2018. Available at: <a href="https://mofa.gov.pk/pakistan-gets-elected-to-the-iaea-board-of-governors/">https://mofa.gov.pk/pakistan-gets-elected-to-the-iaea-board-of-governors/</a>

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emerging countries. Section two describes the existing international cooperation mechanisms adopted by two main organisations of the Pakistan Nuclear Power Programme (Pakistan Atomic Energy Commission, namely 'Operator' and Pakistan Nuclear Regulatory Authority, namely 'Regulator'). Section three analyses prospects and challenges for Pakistan in terms of entering into cooperation with nuclear newcomers. It also suggests a way forward for Pakistan to effectively utilise its sixty years of running safe and secure operations of the nuclear power programme. In the end, recommendations have been made for assisting emerging countries in establishing legislative and regulatory foundations for their nuclear power programme as well as building their capacity for the safe operation of Nuclear Power Plants (NPPs).

### **Nuclear power: Aspiration of emerging states**

Nuclear power as a source of energy has seen many ups and down in the 20<sup>th</sup> century. Starting in the 1950s, nuclear power began setting the stage in the electricity market and this period was considered as 'intensive research and development, with hopes to provide a cheap alternative source of energy'5. From the 1960s to the 70s, it was considered a golden era in terms of global nuclear power generation. However, this boom saw a sharp decline after the Three Miles Island (TMI) accident which occurred in March 1979<sup>6</sup>. TMI accident has affected the growth of the nuclear industry, particularly in the USA where many projects on order or even under construction were suspended or cancelled<sup>7</sup>. In 1986, the Chernobyl accident occurred in Ukraine, though it did not cause many deaths yet this accident shook up the nuclear industry worldwide<sup>8</sup>. As

https://www.iaea.org/sites/default/files/publications/magazines/bulletin/bull21-

<sup>&</sup>lt;sup>5</sup> N.L. Char and B.J. Csik, Nuclear Power Development: History and Outlook, *IAEA Bulletin*,

<sup>&</sup>lt;sup>6</sup>A series of apparent errors and equipment malfunctions, coupled with some questionable instrument readings, resulted in the loss of reactor coolant, overheating of the core, damage to the fuel but probably no melting, and limited releases outside the plant of radioactive noble gases and iodine. For more details: G.R. Corey, A Brief Review of the Accident at Three Mile Island, IAEA Bulletin-Vol 21, No.5, October 1979. Available at

<sup>5/21502795459.</sup>pdf

<sup>&</sup>lt;sup>7</sup>N.L. Char and B.J. Csik, Nuclear Power Development.

<sup>&</sup>lt;sup>8</sup>Austria in 1978 had rejected nuclear power in a general referendum, opposition had stopped Ireland's attempt at nuclear development in the late 1970s, and in 1980 Swedish voters approved

shown in Figure 2, the 1990s and 2000s saw a shift in the nuclear industry from Europe to Asia. However, 2011 saw a sharp decline in nuclear energy progress due to the Fukushima tsunami accident. The construction of various nuclear power plants was suspended, and many governments changed or redirected their investments in nuclear energy.<sup>9</sup>

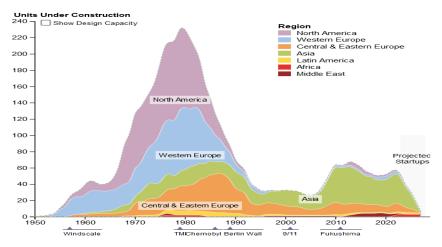


Figure 1: Growth of Nuclear Power (region and year -wise)<sup>10</sup>

After stagnation for some years, nuclear power production has been revived. <sup>11</sup>The revival of nuclear energy is evident as the European Union has included nuclear in its REPowerEU plan. <sup>12</sup> While supporting

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a referendum to phase out the country's twelve (now eleven) operating nuclear power plants. But Chernobyl broadened the opposition to nuclear power. Italy, for example, voted in 1987 to shut down all four of its NPPs. Russia's nuclear expansion was also stalled. Reference: David Fischer, History of the International Atomic Energy Agency: the first forty years, IAEA, Vienna, Austria, 1997.

<sup>&</sup>lt;sup>9</sup>Younghwan Kim, Minki Kim, Wonjoon Kim, Effect of the Fukushima nuclear disaster on global public acceptance of nuclear energy, *Energy Policy*, Volume 61, October 2013, Pages 822-828, <a href="https://doi.org/10.1016/j.enpol.2013.06.107">https://doi.org/10.1016/j.enpol.2013.06.107</a>

<sup>&</sup>lt;sup>10</sup>World Nuclear Power Reactors 1951–2023, The WNISR Interactive DataViz, World Nuclear Industry Status Report,

https://www.worldnuclearreport.org/reactors.html#tab=iso;active=1998,2012

<sup>&</sup>lt;sup>11</sup>Hannah Ritchie, Max Roser and Pablo Rosado, "Energy," *OurWorldInData.org*, July 10, 2020, <a href="https://ourworldindata.org/nuclear-energy#">https://ourworldindata.org/nuclear-energy#</a>

<sup>&</sup>lt;sup>12</sup>Communication from the Commission to the European Parliament, The European Council, The Council, The European Economic and Social Committee and the Committee of the Regions

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its existing and advanced reactors, the US has introduced tax credits through Inflation Reduction Act. <sup>13</sup>The Energy Security Strategy of the UK proposes eight new nuclear reactors by 2030 to increase deployment of civil nuclear energy up to 24 GW by 2050 which is three times more than current production and represents up to 25% of the UK's projected electricity demand. <sup>14</sup>South Korea has also indicated scaling down phaseout plans for existing nuclear plants and shown intention to promote the development of small modular reactors. <sup>15</sup>

#### **Nuclear power: current trends**

A review of the literature suggests three developments or factors that have brought nuclear power back on the table. These include countries' commitment to meet net-zero emissions under the 26th United Nations Climate Change Conference of the Parties (COP26); fossil fuel reduction and the rise of their prices; energy security amid the Ukraine war which resulted in uncertainty on gas supply to Europe. The nexus between climate debate, nuclear energy, and energy security is pushing countries to either explore or expand their energy mix with nuclear power as a reliable, low-carbon energy source. As of May 2023, World Nuclear Association statistics show that there are 436 nuclear reactors in operation. <sup>16</sup>In addition, 60 new reactors are in construction phase in 18 countries. Another reflection of these statistics shows that there is a capacity decline in the US and Europe, whereas China is gradually increasing the nuclear share in its energy mix. According to Alex

REPOWEREU PLAN {SWD(2022) 230 FINAL, https://eur-lex.europa.eu/legal content/EN/TXT/?uri=COM%3A2022%3A230%3AFIN&qid=1653033742483

<sup>&</sup>lt;sup>13</sup> Inflation Reduction Act Keeps Momentum Building for Nuclear Power," *Office of Nuclear Energy*, September 8, 2022, <a href="https://www.energy.gov/ne/articles/inflation-reduction-act-keeps-momentum-building-nuclear-power">https://www.energy.gov/ne/articles/inflation-reduction-act-keeps-momentum-building-nuclear-power</a>

<sup>&</sup>lt;sup>14</sup> British Energy Security Strategy Secure, clean and affordable British energy for the long term, *HM Government, April*, 2022,

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/1069969/british-energy-security-strategy-web-accessible.pdf

<sup>&</sup>lt;sup>15</sup>Zi-HoonLee, Korea's Yoon govt to raise nuclear power to 34% of energy source, *The Korea Economic Daily*, Apr 21, 2022, <a href="https://www.kedglobal.com/business-politics/newsView/ked202204210007">https://www.kedglobal.com/business-politics/newsView/ked202204210007</a>

<sup>&</sup>lt;sup>16</sup>"World Nuclear Power Reactors & Uranium Requirements," *World Nuclear Organization*, May 2023, <a href="https://world-nuclear.org/information-library/facts-and-figures/world-nuclear-power-reactors-and-uranium-requireme.aspx">https://world-nuclear.org/information-library/facts-and-figures/world-nuclear-power-reactors-and-uranium-requireme.aspx</a>

Whitworth, Head of Asia power and renewable research at consultancy Wood Mackenzie, "taking need and fossil fuel prices as factors into account, Asia is considered as the region to launch a golden age of nuclear development." These trends reveal that nuclear energy is going to make visibility in the overall energy mix of country. Interestingly, there is shift from Europe to Asia as the new developments in nuclear energy are predominantly concentrated in Asia.

### **Emerging countries: nuclear newcomers**

Many countries are considering nuclear energy as a viable option to their energy mix to reduce reliance on fossil fuels and thereby achieving energy security. Nevertheless, initiating a nuclear power programme is 'easier said than done'. It involves years of planning and investment in terms of time, infrastructural build-up, and preparing and training manpower to execute associated operations. Therefore, the preparatory work for the installation of NPPs may start ten years before the start of the project.

According to the World Nuclear Association data of May 2023, about 30 countries are considering, planning, or starting nuclear power programmes and a further 20 or so countries have at some point expressed an interest. Figure 2 gives details of these countries under three categories. Since these countries do not have sufficient experience in building, operating, or regulating nuclear facilities and also trained manpower to execute essential functions, they may seek assistance from

projects-2022-08-04/

<sup>&</sup>lt;sup>17</sup>Enrico Dela Cruz, Florence Tan, Timothy Gardner, "Analysis: Global energy crisis drives rethink of nuclear power projects," *Reuters*, August 4, 2022, https://www.reuters.com/business/energy/global-energy-crisis-drives-rethink-nuclear-power-

<sup>&</sup>lt;sup>18</sup>"Emerging Nuclear Energy Countries," World Nuclear Association, accessed on December 26, 2022, <a href="https://world-nuclear.org/information-library/country-profiles/others/emerging-nuclear-energy-countries.aspx">https://world-nuclear.org/information-library/country-profiles/others/emerging-nuclear-energy-countries.aspx</a>

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other countries either bilaterally or through the forum of IAEA.

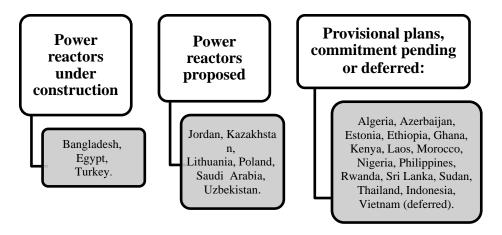


Figure 2: Nuclear New Comers: Emerging Countries

This study considers only those countries as "nuclear newcomers or emerging countries" which have either NPPs under construction or NPPs proposed or planned. In the first category, three countries (Bangladesh, Egypt, and Turkey) have NPPs under construction<sup>19</sup>. Their details are provided in Table 1. The second category includes states which have proposed power reactors yet their specific timing to construct and operate NPPs is uncertain. These include Jordan, Kazakhstan, Lithuania, Poland, Saudi Arabia, and Uzbekistan. Another trend that can be seen while evaluating nuclear newcomers is that Russia is dominating the nuclear market as a supplier country<sup>20</sup>.

<sup>&</sup>lt;sup>19</sup>The details about nuclear power programs of Bangladesh, Egypt and Turkey are available at World Nuclear Industry Status Report under relevant country section.

https://www.worldnuclearreport.org/+-Bangladesh-+.html

https://www.worldnuclearreport.org/+-Egypt-+.html

https://www.worldnuclearreport.org/+-Turkey-+.html

<sup>&</sup>lt;sup>20</sup>The World Nuclear Industry Status Report 2022. A Mycle Schneider Consulting Project Paris, October, 2022, <a href="https://www.worldnuclearreport.org/IMG/pdf/wnisr2022-v3-hr.pdf">https://www.worldnuclearreport.org/IMG/pdf/wnisr2022-v3-hr.pdf</a>

Country Name	Reactor	Model	Gross MWe	Constructio n Start	Commerc ial Start	Vendor State
Banglade sh	Rooppur 1	VVER- 1200/V-523	1200	November 2017	2024	
	Rooppur 2	VVER- 1200/V-523	1200	July 2018	2024 or 2025	
	El Dabaa-1	VVER- 1200/V-529	1200	July 2022	November 2020	
Egypt	El Dabaa-2	VVER- 1200/V-529	1200	November 2022		Russia
	El Dabaa-3	VVER- 1200/V-529	1200	May 2023		
	El Dabaa-4	VVER- 1200/V-529	1200	TBC		
Turkey	Akkuyu 1	VVER- 1200/V-509	1200	April 2018	2023	
	Akkuyu 2	VVER- 1200/V-509	1200	April 2020	2024	
	Akkuyu 3	VVER- 1200/V-509	1200	March 2021	2025	
	Akkuyu 4	VVER- 1200/V-509	1200	July 2022	2026	
	Barakah 2	APR-1400	1,337	April 2013	March 2022	
	Barakah 3	APR-1400	1,337	September 2014	February 2023	

Table 1: Emerging Nuclear Countries with NPPs under Construction

Initiating a nuclear power programme is a significant yet complicated endeavour, especially for those countries which do not have prior experience. Literature related to the requirements for setting up a new nuclear power programme suggests that countries should have the following essentials:<sup>21</sup>

<sup>21&</sup>quot; Legal Frameworks for Long-Term Operation of Nuclear Power Reactors, *Legal Affairs 2019*, Nuclear Energy Agency Organization for Economic Co-operation and Development, 2019, <a href="https://www.oecd-nea.org/upload/docs/application/pdf/2019-12/7504-long-term-operation-npp.pdf">https://www.oecd-nea.org/upload/docs/application/pdf/2019-12/7504-long-term-operation-npp.pdf</a>

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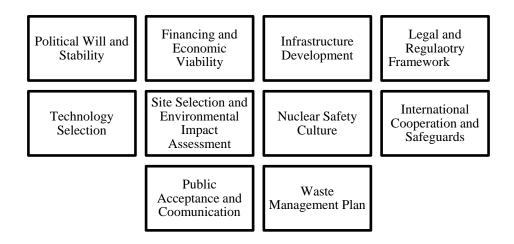


Figure 4: Key Requirements for Initiating Nuclear Power Programme

It is important to highlight that these requirements are generic, each country's particular condition, energy needs as well as economic resources will influence its nuclear power path. At the global level, IAEA is the organisation that is helping emerging countries in their pursuit of nuclear energy. Any country which is a member state of the IAEA can request the agency for seeking guidance, advice, training, and review services in planning and preparation for initiating a nuclear power programme. IAEA has prepared "Milestones in the Development of a National Infrastructure for Nuclear Power" which provides detailed guidance on prerequisites for the nuclear power programme. The Milestones Approach divides the development of a national infrastructure for nuclear power into three phases and three milestones. "Milestones

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See also: "Building a National Position for a New Nuclear Power Programme," *IAEA Nuclear Energy Series* No. NG-T-3.14, <a href="https://www.ntmar.nummer.nu

pub.iaea.org/MTCD/Publications/PDF/Pub1736\_web.pdf

<sup>&</sup>lt;sup>22</sup>\*Milestones in the Development of a National Infrastructure for Nuclear Power," IAEA Nuclear Energy Series NG-G-3.1 Rev.1.

<sup>&</sup>lt;sup>23</sup> Phase 1 contains list of activities to be taken before a decision to launch a nuclear power program. In phase 2, the preparatory work for the contracting and construction of a nuclear power plant is undertaken including establishment of key organization and required legislative and regulatory framework. In Phase 3, activities to contract, license and construct the first nuclear power plant are undertaken. The completion of each phase is marked by a specific

approach" defines 19 important infrastructure issues to address at the planning stage.<sup>24</sup> These infrastructures related activities are divided into three milestones. This guidance-level document offers a list of essential nuclear infrastructure as well as necessary activities to be undertaken by newcomers while considering and planning the first-ever NPP.

### Pakistan and international cooperation for peaceful nuclear power

Pakistan, as the founding member of the IAEA, has always aspired to collaborate with the international community to harness the peaceful applications of nuclear technology. For this, PNRA and PAEC are pursuing the objectives of the Government of Pakistan by establishing liaisons with leading international organisations as well as other member states of the IAEA for the purpose of mutual learning and sharing experiences to execute and ensure safe and secure nuclear installations and radiation facilities.

### Regulator's perspective

PNRA has an international cooperation mechanism in three broad domains:

Fulfilling country's obligations: Currently, Pakistan is a signatory to the Convention on Nuclear Safety (CNS), the Convention on Assistance in Case of Nuclear and Radiological Emergency (CACNARE), the Convention on Early Notification of Nuclear Accidents (CENNA), the Convention on Physical Protection of Nuclear Materials (CPPNM) and its Amendment. It has also voluntarily subscribed to the Code of Conduct on Safety of Research Reactors, the Code of Conduct for Safety and Security of Sealed Radioactive Sources, and it's Supplementary Guidance. PNRA, on behalf of the Government of Pakistan, acts as a

Environmental Protection; Emergency Planning; Nuclear Security; Nuclear Fuel Cycle;

Radioactive Waste Management; Industrial Involvement; and Procurement.

<sup>&#</sup>x27;milestone' at which the progress of the developments can be assessed and a decision can be made to move on to the next phase.

<sup>&</sup>lt;sup>24</sup>These include: National Position; Nuclear Safety; Management; Funding and Financing; Legal Framework; Safeguards; Regulatory Framework; Radiation Protection; Electrical Grid; Human Resource Development; Stakeholder Involvement; Site and Supporting Facilities;

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point of contact for these commitments and ensures the fulfilment of the country's obligations by participating in the relevant forums.

Connections with IAEA: Since IAEA is a depositary of all important nuclear safety and physical protection-related conventions and commitments, thus, PNRA keeps close liaison with IAEA to meet the objective of safe and secure use of nuclear technology. PNRA also benefits from IAEA Technical Cooperation Programme for the capacity building of the regulatory staff and strengthening of the regulatory infrastructure of PNRA. For the development of IAEA Safety Standards, PNRA participates in meetings of various IAEA committees that include the Commission on Safety Standards (CSS), the Transport Safety Standards Committee (TRANSSC), the Nuclear Safety Standards Committee (RASSC). In addition, Pakistan also participates in strengthening its capacity through IAEA Coordinated Research Projects (CRPs)<sup>25</sup>.

**Bilateral relations with RBs:** PNRA also interacts with international organisations and regulatory bodies of other countries. This interaction is aimed at technical and scientific support and strengthening of organisational capabilities such as learning and sharing of experience with the nuclear community that helps in improving regulatory effectiveness. Pakistan has a long history of strong bilateral relations with Peoples Republic of China. These relations have been quite mature in the domain of nuclear safety. Before the inception of PNRA, its predecessor Directorate of Nuclear Safety and Radiation Protection (DNSRP) had a formal protocol for cooperation in nuclear safety with the National Nuclear Safety Administration (NNSA) and the nuclear regulator of China since 1992<sup>26</sup>. With the establishment of an independent regulatory

<sup>&</sup>lt;sup>25</sup>IAEA assists research and development activities for peaceful purposes through exchange of scientific and technical information. Such activities are conducted through Coordinated Research Projects (CRPs)19 under which Member States are brought together to meet, focus on well-defined areas of research and exchange of knowledge, experience and ideas for their mutual benefits.

<sup>&</sup>lt;sup>26</sup> Dr. Hamid Saeed Raza, et. al., "Pakistan-China Cooperation: A [Nuclear] Regulator Perspective", *Science Diplomacy Perspective*, Joint Publication of COMSTECH and Ministry of Foreign Affairs, March 2022, <a href="https://www.comstech.org/wp-content/uploads/2022/03/Compiled-Special-Issue-10-3-2022.pdf">https://www.comstech.org/wp-content/uploads/2022/03/Compiled-Special-Issue-10-3-2022.pdf</a>

body in 2001, PNRA continued these relations and made efforts to further enhance the cooperation. The first formal step that PNRA took in this context was the signing of the renewed protocol between Technical Support Organisations (TSOs) that is the Centre for Nuclear Safety (CNS) of PNRA, and the Nuclear and Radiation Safety Centre (NSC) of the NNSA of China in September 2004 and, subsequently, renewing it in June 2009, May 2014 and September 2019.<sup>27</sup>

Other than China, PNRA also explored possibilities of interaction with nuclear regulators of other countries, notably with the United States Nuclear Regulatory Commission (USNRC) and the Finnish Nuclear and Radiation Safety Authority (STUK). <sup>28</sup> PNRA also signed a Memorandum of Understanding (MoU) with the Nigerian Nuclear Regulatory Authority (NNRA) in 2019 and with Nuclear Regulatory Authority (NRA) of the Republic of Ghana for capacity building of their regulatory staff under the auspices of IAEA.

### Operator's perspective

Being a scientific and technical organisation, PAEC is maintaining close liaison with international organisations like the European Organisation for Nuclear Research (CERN), the Abdus Salam International Centre for Theoretical Physics (AS-ICTP), the International Atomic Energy Agency (IAEA), Institute of High Energy Physics (IHEP), and the Synchrotron-Light for Experimental Science and Applications in the Middle East (SESAME).<sup>29</sup>

Pakistan has always been keen on building partnerships with IAEA for the capacity building of other countries. With this backdrop, it organised a side event and displayed an exhibition stall on "Atoms for Sustainable Development" during the 63rd General Conference of the

<sup>&</sup>lt;sup>27</sup>Raza, et. al., "Pakistan-China Cooperation."

<sup>&</sup>lt;sup>28</sup> As per PNRA Two Decades Report: In 2010, PNRA collaborated with the United States Nuclear Regulatory Commission (USNRC) and placed its two officers at USNRC for capacity building in the area of research reactor safety and probabilistic safety assessments. In 2005, PNRA signed a bilateral agreement with a technical support and research organization of Slovak Republic namely VUJE.

<sup>&</sup>lt;sup>29</sup> Åmin Ahmed, "PAEC chief for world cooperation in science, technology", *DAWN*, June 22, 2023, <a href="https://www.dawn.com/news/1696108">https://www.dawn.com/news/1696108</a>

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International Atomic Energy Agency (IAEA) in Vienna in September 2019.<sup>30</sup> The side event was aimed at exhibiting Pakistan's readiness to build international cooperation as part of its Science Diplomacy initiative, which envisages international cooperation in Science, Technology, and Innovation (STI) for socioeconomic development and achievement of SDGs.

Two years later in October 2021, PAEC and IAEA agreed to "Practical Arrangement" to share Pakistan's expertise with IAEA member states around the world. During the concluding ceremony of the agreement, IAEA Deputy Director General Liu Hua stated that "these Arrangements are an effective example of the South-South cooperation, implemented established IAEA mechanisms."31While through expressing satisfaction, the then Chairman PAEC, Muhammad Naeem, termed this cooperation arrangement as Pakistan's payback of technical support to the IAEA having "benefitted from the technical cooperation programme of the IAEA, Pakistan will provide technical support to other member states." The Practical Arrangement covers three years (2021-2024) and provides a framework for cooperation in the pre-defined activities related to the peaceful uses of nuclear technologies.

### From recipient to supplier: prospects and challenges

The analysis of existing cooperation between Pakistan and the international community provides a good precedent to build future connections. The country which has more than sixty years of experience in the safe and secure operation of nuclear power plants and an independent nuclear regulatory body has a lot to offer to others eyeing to initiate a nuclear power programme.

<sup>&</sup>lt;sup>30</sup> Pakistan Projects its "Atoms for Sustainable Development" agenda," *MOFA Press Release* 376/201, Ministry of Foreign Affairs, 19 September 2019, <a href="https://mofa.gov.pk/pakistan-projects-its-atoms-for-sustainable-development-agenda/">https://mofa.gov.pk/pakistan-projects-its-atoms-for-sustainable-development-agenda/</a>

<sup>&</sup>lt;sup>31</sup>Omar Yusuf, "IAEA and Pakistan Atomic Energy Commission Sign Agreement for the Peaceful Use of Atomic Energy", *IAEA*, October 4, 2021,

 $<sup>\</sup>frac{https://www.iaea.org/newscenter/news/iaea-and-pakistan-atomic-energy-commission-sign-agreement-for-the-peaceful-use-of-atomic-energy}{}$ 

Pakistan's learning curve - The introspective analysis based on the discussions held with officials associated with Pakistan's civilian nuclear power programme suggests that Pakistan has adopted a careful path of learning and building capacity through the IAEA and after equipping itself, it is now in a position to empower other emerging countries by offering assistance in many areas related to nuclear power programme. The learning curve of Pakistan's nuclear power programme shows that in phase 1, Pakistan sought to learn from others through the platform of IAEA. Pakistan's technical workforce got training and built its capacity through IAEA Technical Cooperation programmes. Under the Pakistan-China bilateral cooperation in the field of nuclear safety, capacity building of nuclear regulatory personnel was enhanced. In phase II, Pakistan tried to implement what it learned from others by establishing its training institutes. After strengthening its competencies, in phase III, Pakistan is contributing at the international level for safe and secure nuclear power.<sup>32</sup>

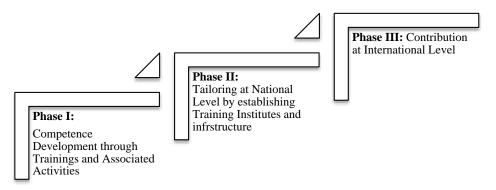


Figure 5: Learning curve of Pakistan's Civilian Nuclear Power Programme

By acknowledging existing cooperation and assistance, what more Pakistan can do for emerging countries? Though at the moment,

<sup>&</sup>lt;sup>32</sup>"Pakistan's Approach for Development of Human Resource for Secure Management of Radioactive Sources" by Imran Ali Khan, Noreen Iftakhar, Tufail Ahmad, paper presented at IAEA's *International Conference on the Security of Radioactive Material- The Way Forward for Prevention and Detection*, 3-7 December, 2018, Vienna-Austria.

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Pakistan may not be in a position to assist through the tangible exchange of NPP-related equipment yet there are other facets of assistance. Either through bilateral treaties or tripartite agreements involving IAEA, Pakistan can offer assistance to emerging countries in capacity-building activities which are a pre-requisite for the successful launch or operation of nuclear power programmes. During an interview with the author, Mr. Muhammad Khaliq, former Section Head of IAEA, opines that "Pakistan has experience in all phases of nuclear power plants. Most Western countries have stopped bringing new power plants into the market, so they have more operational experience. Pakistan is somehow unique that it has experience starting from planning to decommissioning. Pakistan can share this experience with the world, especially with those who are initiating their nuclear power plants or are new in this field".

The author, through personal communication, asked Mr. Khalid Banuri<sup>33</sup>, about prospects for cooperation in the nuclear power sector with emerging countries. Mr. Banuri stated that "there is certainly a potential that exists, as earlier during the Nuclear Security Summit Washington in March 2016, Pakistan offered and expressed its willingness to assist interested states with experience and expertise gained in the areas of nuclear power generation, and other applications of nuclear technology, under the auspices of the IAEA."

### What can Pakistan offer?

Regarding Pakistan's offer, the pessimists will keep on arguing that Pakistan purchases NPPs from others, and how it can assist newcomers. Yet optimistically, assistance is multifaceted and cooperation can be beyond the tangible exchange. Following are some of the specific areas in which Pakistan can offer assistance to emerging countries:

Offering education and training in national institutes: No country can establish and execute a nuclear power programme without trained manpower and competent human resource. Over the years,

<sup>&</sup>lt;sup>33</sup>Former Director General of Arms Control and Disarmament Affairs, currently serving as Advisor Training Project of Pakistan Air Force.

Pakistan has invested in establishing quality education and training institutes to provide baseline training for workforce to operate and ensure safe and secure nuclear technology in Pakistan. These institutions include the Pakistan Institute of Engineering and Applied Sciences (PIEAS), Pakistan Institute of Nuclear Science & Technology (PINSTECH), the National Institute of Safety and Security (NISAS), Karachi Institute of Power Engineering (KINPOE), Chashma Nuclear Power Complex (CHASNUPP), Centre of Nuclear Training (CHASCENT) and Pakistan's Center for Excellence for Nuclear Security Academy Chakri. These institutes are already organising training courses, and workshops in the technical areas of nuclear safety and security. They may dedicate a new wing for emerging countries especially focusing on training manpower in the diverse field of licensing and regulating nuclear power plants. Additionally, IAEA has declared and designated PIEAS and NISAS as part of IAEA collaboration centres for education and training in advanced and innovative nuclear technologies, nuclear security education, training, and technical support. Emerging countries can benefit from PIEAS for education and NISAS for professional training purposes. These institutes may prepare promotional material enlisting training courses that can be offered along with their financial estimates or training expenditures. This promotional material can be displayed at important national and international forums.

Short-term placements for technical positions: Pakistan has an experienced and trained workforce. Upon request from emerging countries, directly or through IAEA, Pakistan may send its experienced technical personnel for short-term placements in the relevant organisation of emerging countries. At times, receiving country may consider it more feasible to get in-land manpower services to teach and empower others. This short term placement may cover a period of three to six months. Pakistan may prepare a list of national experts in each area of operating and regulating NPPs. These experts may be readily available upon request from emerging countries. Muhammad Khaliq maintains the position that "expertise in nuclear domain is not very common, therefore to get experienced people from developed countries are very expensive. The

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provision of expertise from Pakistan could be fairly cheap compared to the EU or any other developed country. Pakistan can avail this option." In this way, Pakistan's technical workforce's credibility will enhance at the international level projecting the country positively.

**Provision of assistance in technical areas:** Pakistan can assist emerging countries in technical areas as well. Dr. Ansar Pervez<sup>34</sup>, claimed that there are some strong areas where Pakistan is in a better position to provide help. He suggested that Pakistan can help emerging countries in site selection, preparation of Site Evaluation Reports, Preliminary Safety Analysis Report, Final Safety Analysis Report, license applications, and quality assurance programmes.

On the regulatory side, Pakistan can assist in building the capacity of regulatory bodies of emerging countries. Emerging countries can benefit from comprehensive regulatory framework established by PNRA. Technical Support Organisations (TSOs) established within PNRA can assist the regulators of emerging countries in the review and analysis of licensee's submissions. The experienced inspectors of PNRA can be attached to the newcomer's regulatory body to establish inspection and oversight mechanisms for the smooth functioning of NPPs. The physical protection expertise can be given to the RBs of emerging countries to establish national physical protection regimes in emerging countries to run secure nuclear power programmes.

### Challenges and way forward

Nonetheless, it is 'easier said than done.' Nuclear cooperation with Pakistan will always be negatively projected by the vested media on the pretext of nuclear proliferation or if Pakistan cooperates with one friendly country of a region, the other might interpret it as a shift of interest. There are few policy options to avoid such a situation:

Cooperation through IAEA: Tri-partite agreements involving the organisation of international repute can bring more transparency as well as authenticity. Thus, Pakistan may enter into cooperation

<sup>34</sup>The author held interview with Dr. Ansar Pervez, former Chairman Pakistan Atomic Energy Commission.

agreements with the embarking member states under the agency's auspices.

**Projection of past and present cooperation:** Pakistan, at a moment, is actively contributing to capacity building and assisting other member states of the IAEA. However, the narrative of this cooperation is missing at the academic and public levels. Concerned government departments may engage students and researchers from policy thinktanks to deliberate on Pakistan's cooperation in the peaceful application of nuclear technology. Knowledgeable researchers can act as ambassadors for advocating Pakistan's nuclear power programme in their international endeavours.

**Preparing a prospective list of emerging countries:** As described in relevant sections about thirty countries can be termed as emerging or embarking though at different levels of planning, Pakistan's policymakers may prepare a "Prospective list of Emerging Countries" with whom it can establish cooperation more favourably. These countries may be engaged during meetings and side-line events at multilateral forums. Furthermore, under the Ministry of Foreign Affairs Science Diplomacy Initiative<sup>35</sup>, Pakistan's diplomatic missions in emerging countries may hold dedicated events for the nuclear power organisations exhibiting Pakistan's strengths related to the nuclear power programme.

In a nutshell, the nuclear business is full of competition, those who have more selling products will compete with the others. Lamenting how Pakistan can be a supplier state when it cannot produce its own NPPs is an obsolete argument. Installing NPPs does not mean the placement of hard equipment and material only. Emerging countries require trained workforce as an essential pre-requisite to perform actions and duties related to the regulation, operation, and decommissioning of NPPs. Pakistan can sell this argument and for that, it needs to project more energetically its nuclear power programme. Though smaller in size, Pakistan's nuclear power programme is noticeable for its safe and secure track record. There is a need for conscious effort by policymakers to

<sup>&</sup>lt;sup>35</sup> "Science Diplomacy Initiative", Ministry of Foreign Affairs, accessed on December 26, 2023, https://mofa.gov.pk/science-for-sustainable-development/

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invest in making a lucrative offer to nuclear newcomers. By opening its education and training institutes for hosting participants from these countries, placing, upon request, its experienced workforce in the emerging countries, and providing technical assistance in core areas of licensing and regulations at low cost, prospects for Pakistan to 'shift from Recipient to Supplier state' will increase.

### Conclusion

The debate on the measures to reduce carbon footprint thereby achieving zero emissions is intensifying the call for an environment-friendly yet sustainable and safe source of energy. This call necessitates the need for all the countries to mutually cooperate and assist each other in achieving a clean source of energy thereby reducing the impact on climate change. Nuclear energy, being green as well as sustainable source, has been employed by various countries for long. Now, many new countries are initiating or planning to initiate nuclear power as a contributor in the overall energy mix. These countries, known as emerging or embarking nuclear countries, require the assistance and cooperation of other countries, including international organisations like the IAEA.

IAEA with the help of its member states, which have prior experience in nuclear power programmes, can assist these new countries in achieving safe yet successful nuclear energy ventures. Established countries like Pakistan which have long experience with safe and secure nuclear power programme are in a better position to help emerging countries. The case study of Pakistan's assistance to embarking countries Pakistan's is significant as nuclear weapons programme overemphasised in media and literature for all the wrong reasons. Much has been written about Pakistan's nuclear weapons programme and a plethora of literature exists to malign Pakistan on the pretext of either ignorance of the facts or writing more on 'sellable' topics. However, less known is the fact that Pakistan's nuclear power programme is spotless and it has experience of running older technology like CANDU-type reactors as well as modern generation III-type reactors like AP-1000. Also, less projected is the fact that Pakistan has well established legislative and regulatory framework with the existence of a nuclear Regulatory Body (RB) which is administratively, financially, and structurally independent from the operator of nuclear power. The existence of 'independent RB' is unique at the regional level of South Asia.

All the relevant national organisations of Pakistan, either the nuclear operator or the nuclear regulator, have extensive international cooperation mechanisms. Especially for emerging nuclear power countries, Pakistan has the potential to assist them in achieving a safe and secure nuclear power programme by educating and training their workforce and providing assistance in technical areas related to licensing and regulations of nuclear power programme. Currently, Pakistan is actively participating in different IAEA programmes aimed at capacity building of emerging countries.

Cooperation through IAEA may be the best policy option to avoid any undesirable criticism. Once materialised, such cooperation may be widely publicised for the researchers and academia to present Pakistan's achievements at national and international forums. Lastly, Pakistan needs to invest in preparing a Prospective List of Emerging Countries based on the participation in the meetings of IAEA Board of Governor, General Conference, conventions, conferences etc. During side-line meetings at these forums, Pakistan may engage potential countries by offering its services. Exploring these options can elevate Pakistan from Recipient to Supplier state.

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# China's Naval Modernisation Since 2013: Implications for Regional Security

Abdur Rehman\*

### **Abstract**

The current pace of People's Liberation Army Navy's (PLAN) modernisation drive manifests China's intentions for the future outlook of the Asia Pacific region. It is not only employing sophisticated weapon systems in service of PLAN to improve its efficiency but also reforming its military doctrine to cope with the current geopolitical and geostrategic realities of the region. On the one hand, China is flexing its muscles to expand its sphere of influence while on the other hand, it is trying to deny reach of the rival powers to its backyard. A closer analysis of the pattern of weapon acquisition by PLAN, and its A2AD and Offensive Defense policy divulge its strategy of regional domination which has security implications for the regional states. Drawing on the Offensive Realism theory, this paper analyses the PLAN struggle for absolute security by developing both offensive and defensive weapons. It further looks into geopolitical, geostrategic and geo-economic complexities and, the overall regional security architecture being affected by the rapid PLAN modernisation drive.

### Keywords

PLAN, Naval Modernisation, Offensive Defence, Regional Dominance, South China Sea, Maritime Security.

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### Introduction

After achieving victory in 1949 in its fight against nationalist forces, the People's Liberation Army (PLA) was formally moulded into a professional army by establishing its Air Force and Navy wings. This was done to improve the standing of the PLA among the regional armies. At the time of its inception, it was an obsolete force with dilapidated weapons, technology and training—China focused on numerical strength rather than qualitative capabilities. But, after the Gulf War and the Taiwan Strait Crisis in 1996, it was struck by the reality that to secure itself, it needed a capable force that could effectively thwart any threat and minimise the power imbalance with other major powers. Therefore, the CCP started the military modernisation efforts in the 90s and later Premier Xi Jinping catalysed it at such a pace that China is now hedging for regional hegemony.<sup>1</sup>

China, being a claimant for the vast maritime region, understands the significance of a powerful naval force and is thus moving towards the establishment of an invincible naval force by employing sophisticated, hi-tech weapons in the service of its Navy. Recently it has developed aircraft carriers, nuclear submarines, and amphibious assault ships to conduct distant operations and prevent adversaries from intruding into its waters and mainland. Moreover, it focuses on developing weapons that could neutralise the lethality of the adversary's force. For instance, its anti-ship missiles such as DF-21 have the capability to deceive the radar system of adversary's ships and thus jeopardise their security.

Under Xi's leadership, China is spending heavily to modernise its naval forces, according to RAND Corporation, China's naval force has almost 70 percent modern ships compared to 50 percent in 2010.<sup>2</sup> Moreover, it has expanded impressively in terms of number of ships it possesses. However, it still lags behind the US in terms of the number of

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<sup>&</sup>lt;sup>1</sup> Defense Intelligence Agency, "China Military Power: Modernizing a Force to Fight and Win Wars," *Defense Intelligence Agency* (Defense Intelligence Agency, 2019), accessed January 17, 2023.

<sup>&</sup>lt;sup>2</sup> David Lague, "China's Vast Fleet Is Tipping the Balance against U.S. in the Pacific," *Reuters*, April 30, 2019, accessed November 17, 2023, https://www.reuters.com/investigates/special-report/china-army-navy/.

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aircraft carriers and nuclear submarines. Though PLAN is the largest Navy in the world in terms of the number of ships, yet it has to travel a long way to achieve the status of a pre-eminent naval power.<sup>3</sup>

### Transformation of Chinese navy: theoretical reasoning

The best explanation for the modernisation efforts of PLAN is mainly provided by the theoretical proposition of Alfred Thayer Mahan's Sea Power Theory, Monroe Doctrine (1823) and Mearsheimer's prediction of transforming economic power into military power (Offensive Realism).<sup>4</sup>

In his theoretical proposition, Mearsheimer contends that great powers are always sceptical of the intentions of other great powers. They always go for relative gain in order to achieve complete security. In his hegemonic model, he further holds that global hegemony is almost impossible and thus holds that great powers initially establish regional dominance in their respective regions and try to prevent other great powers from achieving dominance in their respective regions. Similarly, Alfred Thayer Mahan contends that without a powerful naval force, it is almost impossible to constrain the expansion of rival powers. In his analysis of Britain's rise to global power, the epicentre of its strength was the powerful Navy that it possessed at that time.<sup>5</sup> Monroe, the US President in 1823, also argues in his doctrine that without successful thwarting of great powers from interference in the affairs of the regional great powers, regional dominance is almost impossible. Drawing on these propositions this paper analyses the Chinese naval build-up in the Asia Pacific region and its implications for the overall regional security architecture and national security of the regional states.

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<sup>&</sup>lt;sup>3</sup> Michael Nixon et al., "The US-China Military Score Card: Forces Geography and the Evolving Balance of Power 1996-2017," *RIND Corporation* (RAND Corporation, 2017), accessed November 17, 2023.

 $https://www.rand.org/content/dam/rand/pubs/research\_reports/RR300/RR392/RAND\_RR392.pdf$ 

<sup>&</sup>lt;sup>4</sup> John J. Mearsheimer, *The Tragedy of Great Power Politics* (W. W. Norton & Company, 2014).

<sup>&</sup>lt;sup>5</sup> Alfred Thayer Mahan, *The Influence of Sea Power upon History, 1660–1783* (Cambridge University Press, 2010).

Asia Pacific is an extremely significant region and is the centre stage of contemporary global politics. This region possesses geoeconomic and geo-strategic importance as it provides energy transportation and trading routes for many regional states and global powers. Besides this, this region is extremely rich in natural resources. Domination of such a region by any single power will have severe consequences for the economic and energy security of many states. China is currently working in the direction of successfully dominating the region. To counter it, the Trump administration framed an 'Indo-Pacific policy'6 in collaboration with Australia, Japan and India to deter China from altering the traditional status quo. Similarly, the Biden administration's policy is a continuation of his predecessor's policy wherein Biden considers China a revisionist power and a threat to the US interests. Its policy mainly revolves around three pillars— allies, values and technological advancement. The US considers itself on high moral ground in these areas and is trying to further consolidate its position by putting China on the back foot.8

By closely analysing China's military modernisation drive, it is evident that China is following Mearshiemer's and Thayer Mahan's propositions and Monroe's doctrine under the policy of A2AD and Offensive Defence with excessive care and contemplation for others, to attract minimal aggression from other major powers and successfully attain regional hegemony. President Xi has called upon the PLA "to prepare for the military struggle for all strategic directions". His three-step plan—making PLA a fully mechanised force by 2020, a modernised force by 2035 and a world first-class force by 2050 is the manifestation

<sup>&</sup>lt;sup>6</sup> N.d. (U) (U) U.S. Strategic Framework for the Indo-Pacific, US Government (accessed December 26, 2023, https://trumpwhitehouse.archives.gov/wp-content/uploads/2021/01/IPS-Final-Declass.pdf.

<sup>&</sup>lt;sup>7</sup> Roger Cliff, "A New U.S. Strategy for the Indo-Pacific," *The National Bureau of Asian Research* (The National Bureau of Asian Research, June 16, 2020), accessed February 4, 2023, https://www.nbr.org/publication/a-new-u-s-strategy-for-the-indo-pacific/.

<sup>&</sup>lt;sup>8</sup> Gu Guo-Ping, "Three Pillars in the Biden Administration's China Strategy: Allies, Values, and High-Tech," *International Relations and Diplomacy* 10, no. 6 (December 28, 2022), https://doi.org/10.17265/2328-2134/2022.06.004.

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of his ambitions for PLA.<sup>9</sup> In such a competitive environment China has to have a clear strategic policy, a strong Navy and a will to protect its interests at any cost. To achieve these ends, China has developed Anti Access Area Denial (A2AD)—a Chinese version of Monroe doctrine and, "Active Defence".<sup>10</sup>

Though the available literature provides a multi-dimensional approach to China's military modernisation efforts and unveils different aspects of it, but it does not provide a detailed pattern of how China is modernising its naval force and what is the strategic thinking behind the Chinese pursuit of specific weapon systems for warships. The available studies primarily look into the great powers rivalry in the Asia Pacific region while ignoring the implications of the growing competitive security environment on the security of regional states. However, this article attempts to provide a detailed account of the pattern of the Chinese quest for specific weapons and the implications of the increasingly powerful PLAN for the security of regional states.

### An account of China's naval modernisation

Acquisition of aircraft carriers - dominance at sea: Being overwhelmed by the US military power in the Taiwan Strait Crisis in 1996, China intensified its efforts to achieve naval power to deter such incidents in the future. It bought Australian-built Melbourne and the Soviet-built "Minsk, Varyag and Kyiv" to modify it into a functional aircraft carrier. Further, it raised indigenous expertise in the field of manufacturing aircraft carriers which has yielded the results in the form of Liaoning and Shandong. This programme acquired the focus of the Central Military Committee (CMC) in 2005 and, eventually, China announced the commissioning of its first aircraft carrier in 2009. 11

<sup>&</sup>lt;sup>9</sup> Defense Intelligence Agency, "China Military Power: Modernizing a Force to Fight and Win Wars," *Defense Intelligence Agency* (Washington DC, United States of America: Defense Intelligence Agency, 2019), accessed January 27, 2023.

<sup>&</sup>lt;sup>10</sup> Wu Shicun and Jayanath Colombage, "Indo-Pacific Strategy and China's Response," *Institute for China America Studies* (Institute of China America Studies, October 2019), accessed May 2, 2023.

<sup>&</sup>lt;sup>11</sup> Andrew Scobell, Michael McMahon, and Cortez A. Cooper III, "China's Aircraft Carrier Program: Drivers, Developments, Implications," *Naval War College Review* 68, no. 4 (2015): 65–79.

Shandong and Fujian: Liaoning, Liaoning, the first commissioned aircraft carrier by PLAN, can displace 58,000 tons of weight and is powered by a diesel engine. 12 Technologically it is no match to the US ships but it is certainly an icon in the PLAN. Its 304-meter-long deck can accommodate up to 50 fixed and rotatory wing aircraft and thus provides China the opportunity to assert itself in distant waters.<sup>13</sup> Moreover, it is equipped with Flying Leopard 3000 Naval (FL3000N) missile system, Type1030 Close-in Weapon System (CIWS) and an antisubmarine rocket launcher.<sup>14</sup> In the domain of surveillance, it has 3D surface-air and four multi-purpose active phased array radars (APAR).<sup>15</sup> Although these capabilities are much weaker than those of the US aircraft carriers, still these make the Chinese Navy an advanced naval force regionally. 16 Similarly, Shandong is a copy of the previously developed Liaoning with certain extra space for the aircraft.<sup>17</sup>

Recently, China has launched its third aircraft carrier, the Fujian. It is its first completely indigenously developed design and is equipped with Electromagnetic Catapult Assisted Take off Barrier Arrested Recovery (CATOBAR). Moreover, it is diesel powered with a capacity for J20 and, Air Borne Early Warning and Control (AEWC) aircraft. Such a facility on the high seas is indeed an impactful strategic asset that provides China with a power projection capability in the Asia Pacific region. <sup>18</sup>

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<sup>&</sup>lt;sup>12</sup> "Liaoning (Varyag) Aircraft Carrier, China," Naval Technology, accessed December 27, 2023, https://www.naval-technology.com/projects/varyag-aircraft-carrier-china/.

<sup>13 &</sup>quot;Liaoning (Varyag) Aircraft Carrier."

<sup>&</sup>lt;sup>14</sup> "Liaoning (Varyag) Aircraft Carrier."

<sup>&</sup>lt;sup>15</sup> Franz-Stefan Gady, "China's 1st Carrier Strike Group Reaches Initial Operational Capability," *The Diplomat*, June 5, 2018, accessed April 19, 2023, https://thediplomat.com/2018/06/chinas-1st-carrier-strike-group-reaches-initial-operational-

 $capability/\#:\sim: text= The \%20 carrier \%20 strike \%20 group \%20 led, Chinese \%20 Ministry \%20 of \%20 National \%20 Defense.$ 

<sup>&</sup>lt;sup>16</sup> Benjamin Brimelow, "China Is Getting Ready to Field Its 3rd Aircraft Carrier — Here's Why It's No Match for US Flattops," *Business Insider*, October 8, 2020, accessed April 23, 2023, https://www.businessinsider.com/how-chinas-aircraft-carriers-compare-to-us-navy-flattops-2020-10.

<sup>&</sup>lt;sup>17</sup> Robert C. Rubel, "An Assessment of Chinese Aircraft Carrier Aviation," in *China's Evolving Surface Fleet* (CMSI Red Books, 2017), 81–93, https://digital-

commons.usnwc.edu/cgi/viewcontent.cgi?article=1013&context=cmsi-red-books.

<sup>&</sup>lt;sup>18</sup> Matthew P. Funaiole, Joseph S. Bermudez Jr, and Brian Hart, "China's Third Aircraft Carrier Takes Shape," *Center for Strategic and International Studies*, March 11, 2022, accessed June

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### PLAN's submarines project - struggle for greater outreach:

Along with aircraft carriers, submarines also play an important role in power projection and greater outreach in waters. Although China has been trying to acquire submarines since the 1950s but, success came its way from 1962 to 1984 and later. Initially, it developed Romeo Type-33 attack submarines and Ming Class Type-35 submarines. In the field of nuclear submarines, China's first success was the development of Xia Class Type-092 (SSBN) in 1987 and thus it speeded up its journey to achieve excellence in this field. Currently, China has been successful in developing submarines equipped with Air Independent Propulsion Systems (AIP) and has a fleet of 58 submarines consisting of Ballistic Missile Submarines (SSBNs), Diesel-electric attack submarines (SSKs) and Nuclear-powered attack submarines (SSNs). If It has concluded an agreement with Russia to secure Amur Class diesel attack submarines to diversify the strength of its submarine fleet.

China's rationale behind its submarine capability is to attain second-strike nuclear capability and to march further to the second chain of islands.<sup>21</sup> However, the US still is on a high technical footing in the field of submarines and poses a persistent threat to Chinese security and interests.<sup>22</sup>

Anti-submarine warfare - denying adversary's reach to its backyard: To attain the status of a regional hegemon, a state has to deter the interference of foreigners in its region. John. J Mearsheimer rightly quotes the example of the Monroe Doctrine—which had envisioned a

<sup>29, 2023,</sup> https://www.csis.org/analysis/chinas-third-aircraft-carrier-takes-

 $shape \#: \sim : text = Work \% 20 on \% 20 the \% 20 Type \% 20003, deck \% 20 is \% 20 now \% 20 partially \% 20 complete.$ 

<sup>&</sup>lt;sup>19</sup> NTI, "China Submarine Capabilities," Data set, The Nuclear Threat Initiative (NTI, March 6, 2023), https://www.nti.org/analysis/articles/china-submarine-

capabilities/#: $^{\text{capabilities}}$ /#: $^{\text{c$ 

<sup>&</sup>lt;sup>20</sup> NTI, "China Submarine Capabilities."

<sup>&</sup>lt;sup>21</sup> NTI, "China Submarine Capabilities," Data set, *The Nuclear Threat Initiative* (NTI, March 6, 2023), https://www.nti.org/analysis/articles/china-submarine-

capabilities/#:~:text=China%20possesses%20six%20operational%20Jin,carry%2012%20JL%2D2%20SLBMs.

<sup>&</sup>lt;sup>22</sup> Department of Defense, "Military and Security Developments Involving the People's Republic of China 2020," *Department of Defense Media* (Department of Defense, 2020), accessed July 3, 2023, https://media.defense.gov/2020/Sep/01/2002488689/-1/-1/1/2020-DOD-CHINA-MILITARY-POWER-REPORT-FINAL.PDF.

strategic direction for the US to build a powerful Navy—for the establishment of US supremacy in the Pacific and American continent. Mearshiemer's hegemonic mode provides a framework for Chinese ventures. Assessing the Chinese military modernisation in this context makes it evident that China is following exactly the same route. It is developing anti-submarine warfare capabilities to deter others from entering its claimed waters. Moreover, it is diversifying and enhancing its maritime patrolling and surveillance capability by inducting advanced surveillance aircraft such as Z-18 and Z-20 and, employing Unarmed Aerial Vehicles (UAVs) for locating adversary's submarines.<sup>23</sup> Its antisubmarine Corvettes (Type-056A) further expand the option for China in anti-submarine warfare manoeuvrability.<sup>24</sup> Moreover, its H10 missile launchers, ZKJ-5 system and its towed sonar multiplies its lethality by providing a compact communication and surveillance system.<sup>25</sup>

**Frigates - deterring local wars:** PLAN's design of ships acquisition makes it evident that China wants to surpass the adversary's naval might by developing high-tech and advanced weapons that could enable it to successfully assert its power in the near seas and create a credible image of its power projection in the far seas. Previously, China possessed Type-054 Jainkai Class frigates which were competitive but, the development of Type-054A and its advanced version 054B has taken its frigates fleet to a new level of technological advancement. Its weapon systems consists of HQ-10 surface-to-air missiles, YJ-83 anti-ship missiles, anti-submarine warfare torpedoes and rocket launchers (Type-87). Besides these, it has a 76mm main gun and indigenously developed Type-730 CIWS. Its radar system consists of RM1290 navigation radar

<sup>&</sup>lt;sup>23</sup> Lyle J. Goldstein, "China Is Doing All It Can to Make Sure It Can Kill U.S. Submarines," *The National Interest*, November 15, 2020, accessed June 6, 2023,

https://national interest.org/blog/reboot/china-doing-all-it-can-make-sure-it-can-kill-us-submarines-172600.

<sup>&</sup>lt;sup>24</sup> Ronald O'Rourke, China Naval Modernization: Implications for U.S. Navy Capabilities— Background and Issues for Congress, Congressional Research Service (Washington DC: Congressional Research Service, 2023), accessed June 8, 2023, https://sgp.fas.org/crs/row/RL33153.pdf.

<sup>&</sup>lt;sup>25</sup> Martin Manaranche, "China Commissioned Its Ninth Type 056 Corvette So Far in 2020," *Naval News*, June 23, 2020, accessed June 23, 2023, https://www.navalnews.com/navalnews/2020/06/china-commissioned-its-ninth-type-056-corvette-so-far-in-2020/.

<sup>&</sup>lt;sup>26</sup> Derek Grossman, "Military Build-Up in the South China Sea," in *The South China Sea: From a Regional Maritime Dispute to Geo-Strategic Competition* (London: Routledge, 2020), 182–200, https://doi.org/10.4324/9780429331480.

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and MGK 335 active/passive sonar which increase its capacity to detect objects in deep and bumpy waters. Moreover, its main deck enables Kamov KA-28 helix and Harbin Z-9C helicopters to operate from it and help in locating submarines and transportation of armed personnel.<sup>27</sup>

Destroyers - patrolling distant strategic islands: PLAN journey of Destroyers starts from the commissioning of Type-52C in 2004-5 but the indigenously developed Type-055 manifests its real Destroyer power. These ships are extremely advanced technologically, powered by QC-280 and equipped with surface-to-air missiles, anti-ballistic missiles, anti-submarine rockets and land attack cruise missile systems. Its radar system contains an S-band array that can detect the stealthiest targets; an X-band radar that improves its ability to detect low-flying objects; and a 364-B planner array that can detect objects beyond 400-kms. These destroyers have the capacity for the accommodation of Z-19 helicopters which are used in anti-submarine warfare. These specifications provide much proof about the lethality of this ship and its significance for the Chinese Navy in its objective of power projection.<sup>28</sup>

**PLAN's amphibious assault ships - scrambling for distant operations:** China, being an ambitious global power, prioritises to secure its vicinity first. Amphibious assault ships open options for it to proactively deter regional states from falling prey to the strategic manoeuvres of its rival powers. Taiwan, in this regard, has remained a crucial issue for the CMC. Currently, the US is not adhering to One China policy in letter and spirit. China is countering it diplomatically but hasn't given up the option of forceful annexation. Another factor that makes amphibious assault ships 'a must-have ship' is the overall security

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<sup>&</sup>lt;sup>27</sup> Michael McDevitt, "China's Far Sea's Navy: The Implications of the 'Open Seas Protection' Mission Revised and Updated April 2016," Paper, *Center for Naval Analysis* (Arlington, Virginia, United States of America.), https://www.cna.org/archive/CNA\_Files/pdf/china-far-seas-navy.pdf.

<sup>&</sup>lt;sup>28</sup> Daniel Caldwell Caldwell, Joseph Freda, and Lyle J. Goldstein, "China Maritime Repor China Maritime Report No. 5: China t No. 5: China's Dreadnought? The PL Eadnought? The PLA Navy's Type 055 Cruiser and Its Implications for the F Type 055 Cruiser and Its Implications for the Future Maritime Security Environment," *US Naval War College Digital Commons* (Chinese Maritime Studies Institute, February 2020), accessed July 2, 2013, https://digital-commons.usnwc.edu/cgi/viewcontent.cgi?article=1004&context=cmsi-maritime-reports.
<sup>29</sup> J. Blasko, Dennis. 2022. "China Maritime Report No. 20: The PLA Army Amphibious Force." 20. *Digital Commons*. China Maritime Study Institute. Accessed December 12, 2023. https://digital-commons.usnwc.edu/cgi/viewcontent.cgi?article=1019&context=cmsi-maritime-reports.

environment in the Asia Pacific region. Keeping these factors in mind, the Chinese naval strategists have opted for an amphibious assault ship to secure its interest in the region and beyond.<sup>30</sup> It will help PLAN to dampen Taiwan's ambitions for independence, provide it with multiple combat engagement options and enable it to occupy the uninhabited islands in the SCS and the Indian Ocean Region (IOR).<sup>31</sup>

Currently, China has two classes of amphibious assault ships – Type071 and the latest Type075. These are equipped with advanced radars and sonar systems, and are capable of accommodating, vertical landing aircraft, surveillance helicopters and gunship helicopters.<sup>32</sup>

PLAN's naval aviation: eye in the sea - PLAN's aviation is criticised for being underpowered and obsolete yet, being an eye on the seas, it provides the much-needed surveillance, air combat options, and capacity to assist the navy conducting successful operations. PLAN is actively working on the enhancement of capabilities of its aviation unit under the policies of 'Active defence', 'A2AD' and 'Informationisation', to respond to this criticism. PLAN Aviation possesses the best capabilities in the region comprising attack aircraft, surveillance aircraft, and transport helicopters.<sup>33</sup> Its aircraft carriers allow J10 and J15 attack aircraft, and Z8/KA31 AEWs helicopters to operate from its deck.<sup>34</sup> In addition to that, Chinese navy plan to commission J20 in its naval air arm and replace Z18F and Z18J with more advanced multi-role helicopters

<sup>&</sup>lt;sup>30</sup> Ronald O'Rourke, *China Naval Modernization: Implications for U.S. Navy Capabilities—Background and Issues for Congress, Congressional Research Service* (Washington DC: Congressional Research Service, 2023), accessed June 8, 2023, https://sgp.fas.org/crs/row/RL33153.pdf.

<sup>&</sup>lt;sup>31</sup> Derek Grossman, "Military Build-Up in the South China Sea," in *The South China Sea: From a Regional Maritime Dispute to Geo-Strategic Competition* (London: Routledge, 2020), 182–200, https://doi.org/10.4324/9780429331480.

<sup>&</sup>lt;sup>32</sup> Sebastien Roblin, "China's 3 Helicopter Carriers Are Here to Stay: Paper Tiger or Super Weapon?" *The National Interest*, September 29, 2019, accessed July 10, 2023, https://nationalinterest.org/blog/buzz/chinas-3-helicopter-carriers-are-here-stay-paper-tiger-or-super-weapon-73831.

<sup>&</sup>lt;sup>33</sup> Benjamin Brimelow, "China Is Getting Ready to Field Its 3rd Aircraft Carrier — Here's Why It's No Match for US Flattops," *Business Insider*, October 8, 2020, accessed April 23, 2023, https://www.businessinsider.com/how-chinas-aircraft-carriers-compare-to-us-navy-flattops-2020-10.

<sup>&</sup>lt;sup>34</sup> Humphrys, Matt. 2023. "China's High-Altitude Heliports: Examining PLA Helicopter Force Changes." Masters Dissertation, Johns Hopkins University.

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such as Z10 and Z20 will further enhance its surveillance capabilities<sup>35</sup>. Despite all this, China's naval aviation lags far behind its adversary's naval aviation capabilities, for instance, the US has F-35 vertical landing aircrafts in its naval service which alone can outclass the whole Chinese naval aviation assets. To become a regional power, China has to enhance its naval aviation capabilities to at least on equal footing with that of the US.<sup>36</sup>

**Anti-ship missiles - deterring dominant adversary's naval force**: The US Indo-Pacific commander Admiral Phil Davidson admitted in his statement to the Senate armed services committee "Our conventional superiority in the Indo-Pacific region is eroding". The reason for such a pessimistic statement was the testing of DF21D and DF26 anti-ship ballistic missiles.<sup>37</sup>

PLAN is comprehensively working on its intelligence, surveillance and reconnaissance capabilities to improve the accuracy of its weapons and improve the manoeuvrability in the busy waters of SCS, IOR and East China Sea (ECS).<sup>38</sup> Recently, China has increased the use of such technologically advanced missiles in PLAN exercises which, is indeed a clear message to other powers to refrain from interfering in China's domain in case of a regional crisis and thus shaping its A2AD manoeuvrability. In addition to this, China is developing HN-2000, a missile with an advanced navigational system with extremely high precision and, a ship-launched version of DH-10- which will enable

<sup>&</sup>lt;sup>35</sup> Minnie Chan, "What a Hull Number Reveals about China's Big New Amphibious Warship," *Business Insider*, May 10, 2021, accessed February 19, 2023,

https://www.businessinsider.com/chinese-type-075-amphibious-warship-on-par-with-aircraft-carrier-2021-5?utm\_source=flipboard&utm\_content=Daiyang1%2Fmagazine%2FNaval+Power. <sup>36</sup> Kris Osborn, "China & Russia Do Not Have an F-35B-like 5th-Gen Vertical Take-Off Stealth Ocean Attack," *Warrior Maven: Center for Military Modernization*, July 6, 2023, accessed July 9, 2023, https://warriormaven.com/sea/china-russia-do-not-have-an-f-35b-like-5th-gen-vertical-take-off-stealth-ocean-attack.

<sup>&</sup>lt;sup>37</sup> Anthony Capaccio and Peter Martin, "U.S. Cites Threat to Carriers from Chinese Anti-Ship Missile," *Bloomberg.Com*, March 9, 2021, accessed July 12, 2023, https://www.bloomberg.com/news/articles/2021-03-09/china-tested-top-anti-ship-missile-in-drill-u-s-admiral-says.

<sup>&</sup>lt;sup>38</sup> Felix K. Chang, "China's Anti-Ship Ballistic Missile Capability in the South China Sea - Foreign Policy Research Institute," Foreign Policy Research Institute, May 24, 2021, accessed July 13, 2023, https://www.fpri.org/article/2021/05/chinas-anti-ship-ballistic-missile-capability-in-the-south-china-sea/

PLAN to target adversary's ships and aircraft carriers anywhere in the seas.<sup>39</sup>

## Implications of PLAN's modernisation efforts on the regional security:

With the economic rise of China, its overseas interests are also rising rapidly. Regional states are increasingly becoming dependent on trade with the Chinese while at the same time fearing the military rise of China. The states in East Asia had independent economic systems; however, the 1997 crisis brought about drastic changes in the pattern of economic affairs of the region. Japan and the US disagreed on the nature of the economic crisis; the US blamed Crony Capitalism for the crisis while Japan was of the opinion that it was due to liquidity and monetary problems. This dissent resulted in the formation of the Asian Monetary Programme. This crisis opened the way for China to become a formal member of WTO and it could now propagate its economic model in the world. China benefitted from this opportunity and emerged as an economic giant in the world. To protect its growing economic interests and its maritime trade, it was imperative for China to modernise its navy.

**Implications for the security of Japan:** Japan, being an ally of the US, is heavily dependent on the US for its security. Although, the US has guaranteed the security of Japan under the US-Japan Agreement of 1952<sup>41</sup>. Yet, this alone cannot fulfil its security needs given the growing assertiveness of China by building strategic capabilities in the SCS. The US-Japan alliance serves the security need of Japan but this too has limitations in face of China's rapidly growing outreach in the region. As

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<sup>&</sup>lt;sup>39</sup> Ian Easton, "The Assassin under the Radar: China's DH-10 Cruise Missile Program," *Project* 2049 Institute, June 1, 2018, accessed July 19, 2023, https://project2049.net/wp-content/uploads/2018/06/assassin\_under\_radar\_china\_cruise\_missile.pdf.

<sup>&</sup>lt;sup>40</sup> Iram Khalid and Muhammad Iqbal Chawla, "Rise of China: Global Order and the Region," *PalArch's Journal of Archaeology of Egypt/Egyptology* 17, no. 9 (2020): 8212–32, https://archives.palarch.nl/index.php/jae/article/download/5746/5639/11208.

<sup>&</sup>lt;sup>41</sup> Blinken, Antony, Lloyd Austin, Yoshimasa Hayashi, and Yasukazu Hamada. 2023. "Joint Statement of the 2023 U.S.—Japan Security Consultative Committee ('2+2')." Press release. January 11, 2023. https://www.defense.gov/News/Releases/Release/Article/3265559/joint-statement-of-the-2023-usjapan-security-consultative-committee-22/.

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a result, Japan is looking for more concrete steps to balance the Chinese threat –the number one adversary of Japan<sup>42</sup>.

Japan has employed a two-dimension policy— strengthening diplomacy and economy, and reviving the Self Defence Force (SDF) - to secure itself from the perceived Chinse assertiveness. It is countering the Chinese policy of fighting and winning the local wars under 'Informationised' conditions by developing the domains of cyber security, space security and the electromagnetic spectrum to secure its data, communication and detection of strategic assets.<sup>43</sup>

Japan has close economic relations with both the US and China and cannot opt for either of the two in its competing economic and security interest. However it fears that China's quest to become a regional power will undermine its security. In future, Japan may reconsider its US centric foreign policy to establish some sort of neutrality that serves its interests and ensures its security without further provocation of China.<sup>44</sup>

Taiwan question and Chinese military posture: Taiwan, being an unresolved issue for China, occupies much of its strategic thinking and military efforts. While on the other hand, Taiwan seeks international support for the declaration of its independence. This posture of Taiwan infuriates China as it wants the gradual absorption of Taiwan into its mainland, given its strategic importance.

Geo-strategically, Taiwan is located at the entrance of the First Chain of Islands and its permanent loss will certainly have security and economic consequences for China. By controlling Taiwan, China can shift its complete attention to the Nine-Dash Line where it wants to control the trade of regional allies of the US and secure free navigation of

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<sup>&</sup>lt;sup>42</sup> Sameer Patil, "China's Military Modernization – Analysis," Euroasia Review, April 3, 2022, accessed July 21, 2023, https://www.eurasiareview.com/03042022-chinas-military-modernization-analysis/.

<sup>&</sup>lt;sup>43</sup> Masaaki, YATSUZUKA. 2020. "PLA's Intelligentized Warfare: The Politics on China's Military Strategy." *Anzenhosho Senryaku Kenkyu* 1 (2): 17–36. https://www.nids.mod.go.jp/english/publication/security/pdf/2022/01/05.pdf.

<sup>&</sup>lt;sup>44</sup> Feng Liu and Kai He, "China's Bilateral Relations, Order Transition, and the Indo-Pacific Dynamics," *China Review*, February 2023, https://www.jstor.org/stable/pdf/48717987.pdf?refreqid=excelsior%3A4226252dd184ed37c882f

its own ships.<sup>45</sup> On the other hand, the US is closely working with its allies in East Asia to stem its relative economic slide and, for this, it is providing diplomatic and technical support to Taiwan and strengthening advocacy of the values of the liberal world. Additionally, the US has some of its largest trading partners in East Asia which is vital for the economic growth of the US and the complete control of Taiwan by China may disrupt regional trade which could harm the US economy massively.<sup>46</sup>

For its strategic and symbolic value, China is trying to control Taiwan diplomatically but it has not given up the military options. If China's core interests are threatened, it will not hesitate to annex Taiwan by the use of force. Chinese premier Xi Jinping's statement on the US interference in the affairs of Taiwan that 'those who play with fire are perished by it' provides an insight into vision for the future of Taiwan<sup>47</sup>. On the other hand, the US wants to continue diplomatic support, economic and military aid to Taiwan to create a Ukraine-like state in the Asia Pacific region. The recent military aid by the US for Taiwan under the Foreign Military Financing (FMF) — military aid designed for sovereign states has two dimensions: supporting Taiwan militarily; and extending implied recognition of its sovereignty.<sup>48</sup>

China in the divided Korean Peninsula: China and North Korea have been enjoying a roller-coaster relationship since the Korean War. <sup>49</sup>But after the failure of the Six Parties Talks, China softened its

<sup>&</sup>lt;sup>45</sup> Lowy Institute, "China's Nine-Dash Line Proves Stranger than Fiction," The Interpreter, April 12, 2022, accessed September 16, 20230, <u>China's nine-dash line proves stranger than fiction | Lowy Institute</u>

<sup>&</sup>lt;sup>46</sup> Emma Chanlett-Avery et al., "U.S.-Japan Relations," *Congressional Research Service* (Congressional Research Service, September 12, 2023), accessed September 14, 2023, https://sgp.fas.org/crs/row/IF10199.pdf.

<sup>&</sup>lt;sup>47</sup> Steve Holland, Michael Martina, and Ryan Woo, "Don't 'play with Fire' over Taiwan, China's Xi Warns in Call with Biden," *Reuters*, July 29, 2022, accessed September 17, 2023, https://www.reuters.com/world/biden-looks-tamp-down-taiwan-tension-during-china-xi-call-2022-07-28/.

<sup>&</sup>lt;sup>48</sup> Matthew Lee and Aamer Madhani, "China Objects as US Approves Military Aid to Taiwan under Program Aimed at Sovereign Nations | AP News," *AP News*, August 31, 2023, accessed September 19, 2023, https://apnews.com/article/us-military-aid-taiwan-sovereign-one-china-policy-23dbe7da92c63bc33e93f95ab09b7f2b.

<sup>&</sup>lt;sup>49</sup> Eleanor Albert, "The China–North Korea Relationship," *Council on Foreign Relations*, June 25, 2019, accessed September 23, 2023, https://www.cfr.org/backgrounder/china-north-korea-relationship.

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stance against North Korea mainly for two strategic reasons: first, it wanted a strong and pro-China North Korea on its North Eastern border for the economic imperatives of its North Eastern provinces; and second, it wanted to limit the access of the US to its borders. The strategic thinking behind such a move was, to counter the US presence in South Korea through balancing of security architecture of the Korean Peninsula by strengthening North Korea.<sup>50</sup>

China occasionally employs coercive means to limit South Korean engagement with its natural adversary. For instance, China warned South Korea not to enter into a formal security alliance with the US and, warned it of the consequences of any further cooperation in the wake of deployment of the THAAD missile defence systems in South Korea which the Chinese consider as a threat to their nuclear deterrent.<sup>51</sup>

**South China Sea - A strategic hotspot**: Geo-economically, SCS is a resource-rich region with a massive amount of hydro-carbon reserves and fisheries. According to the US Energy Information Administration, the region possesses approximately 11 billion barrels of oil and 190 trillion cubic feet of natural gas. Besides this, the region is a rich source of marine economy and has the five largest fishing zones which contribute about 12 percent of the world's harvested fish. Such a resource-rich region is vital for the food security and economic prosperity of China and of ample economic significance for its 300 billion dollar economy directly linked with SCS. <sup>52</sup>

Geo-strategically, this region is important for China and the US. Main trading arteries, SLOC and, Choke Points are present in this region. About 5.3 trillion dollars trade passes through this region every year including about 1.2 trillion dollars trade of the US. According to the

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 $<sup>^{50}</sup>$  Chu Shulong and Lin Xinzhu, "The Six Party Talks: A Chinese Perspective," Asian Perspective 32, no. 4 (2008): 29–43, https://www.jstor.org/stable/42704652.

<sup>&</sup>lt;sup>51</sup> J Meick, Ethan, and Nargiza Salidjanova. 2017. "China's Response to U.S.-South Korean Missile Defense System Deployment and Its Implications." U.S.-China Economic and Security Review Commission. Accessed December 11, 2023.

 $https://www.uscc.gov/sites/default/files/Research/Report\_China\%\,27s\%\,20Response\%\,20to\%\,20T\,HAAD\%\,20Deployment\%\,20and\%\,20its\%\,20Implications.pdf.$ 

<sup>&</sup>lt;sup>52</sup> Asyura Salleh et al., "The South China Sea: Realities and Responses in Southeast Asia," *Asia Society* (The Asia Society Policy Institute, 2021), accessed September 19, 2023, https://asiasociety.org/policy-institute/south-china-sea-realities-and-responses-southeast-asia.

World Energy Outlook, about 90 percent of Middle Eastern oil passes through this region—fuelling the industries of China, Japan, and South Korea. Moreover, regional states' energy and trade security is dependent on this region and any disruption in the supply chain of energy or trade will have detrimental consequences for the regional economy.<sup>53</sup>

Geo-politically, this region provides better strategic options for those who dominate it. For instance, China is actively pursuing its maritime trade route policy to secure its trade and energy supplies. Besides this, China is establishing artificial islands, occupying uninhabited islands and denying the reach of other states to its claimed islands in order to successfully craft its image as regional dominant power. This, in return, will provide China options to regulate and dominate regional trade and to counterbalance those states that are not on good terms with it. Such ambitious Chinese goals cannot be achieved without having a powerful Navy.

### Conclusion

The change in global economic and power dynamics during the last decade has changed the pattern of pursuit of power and strategic interests. China, being a rising global power, is in active competition both regionally and globally to not only secure its interests but cement the pillars of its security to an extent where it feels completely secure. This posture of China was predicted by Mearsheimer in 2014 in his article "Can China Rise Peacefully?" based on his argumentation for the rise of America. He concludes that securing the economic interests of China, which are ever-expanding, will eventually compel it to have a strong force that could effectively look after its economic and strategic interests. Currently, China is following exactly the same pathway under the doctrine of A2AD— a Chinese version of Monroe doctrine— and Offensive Defence.

On the other hand, the US wants to secure its allies and trade in East Asia and is continuously getting involved in the East Asian affairs

<sup>&</sup>lt;sup>53</sup> Todd Moulton, "Preventing War in the South China Sea," *Journal of Indo-Pacific Affairs*, August 1, 2022, https://www.airuniversity.af.edu/JIPA/Display/Article/3111133/preventing-war-in-the-south-china-sea/.

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to contain the rising China. This has pushed China to compete with the US and hence to increase its military power, in particular its maritime power, to the extent that regional countries are unable to balance the Chinese power. All of the East Asian allies of the US are heavily dependent on it for their survival and security. In such a critical security architecture of the Asia Pacific region, building up of its naval strength is critical for the Chinese to safeguard their economic and geo-strategic interests. Chinese are also wary of the emerging alliances/partnerships such as Quad – including US, Japan, India and Australia; and AUKUS that involves Australia, the UK and the US, with the explicit goal of checkmating a rising China and to constrain its geo-strategic and geo-economic ambitions in the Asia Pacific Region.

### **BOOK REVIEWS**

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### **The Politics of Nuclear Weapons**

Andrew Futter, ISBN 978-3-030-48736-2, (London: Palgrave Macmillan, 2020, 333 pages)

### Reviewed by Shamil Abdullah Saleh\*

Andrew Futter presents a revised and updated version of the 2014 edition. The author thinks that the international politics has evolved significantly, influenced by the United States' withdrawal from the Joint Comprehensive Plan of Action (JCPOA) and the termination of the Intermediate-Range Nuclear Forces Treaty with Russia. Against the backdrop of these geopolitical shifts, the author introduces readers to a narrative shaped by the looming spectre of the advent of disruptive technologies and renewed arms race.

The initial chapters provide a well-written introduction to nuclear weapons and their inherent political nature. Nuclear weapons represented a game changing moment in global politics (p. 27), building on this pivotal realization, Futter divides nuclear ages into three distinct timelines. Cold War age is the first, followed by the second that includes developments in regions like the Middle East and South Asia, and third encompasses technological evolutions and their impact on the new nuclear age. The author explains international developments, weapon development and deployment and evolution of nuclear strategies during all three ages.

The author further explores the challenges that states encounter in their pursuit of nuclear capabilities, delving into aspects such as the Nuclear Non-Proliferation Treaty (NPT) and the intricate relationship between civilian nuclear programmes and their potential for weapon development. Moreover, Futter also analyses vertical and horizontal proliferation, theories within the first nuclear age specifically Mutual Assured Destruction (MAD). The eighth Chapter sheds light on the significance of international non-proliferation regime, explaining

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compliance mechanisms and negotiations, as well as strategies for arms control most notably bilateral arms control agreement between the United States and Soviet Union.

There are instances in the book where the author struggles to support his arguments, resulting in gaps. The absence of supporting evidence or reliance on speculative claims raises questions about certain key aspects.

The author argues about non-state actors and terrorist groups acquiring nuclear weapons or fissile material which could disrupt the global nuclear order. As these actors are not confined to a single territory, the use of force and threat of punishment may not be effective against these actors. While it may be difficult for non-state actors to manufacture a working nuclear explosive device from scratch, however, risk of acquired or stolen material significantly increases the possibility of nuclear terrorism. The author omitted a thorough explanation regarding the potential for non-state actors to develop a functional nuclear weapon. Although the author introduces the concept of "dirty bombs," it is important to note that no credible report is mentioned to document any successfully attempt of obtaining the required materials.

The discussion centers upon a pivotal aspect of the politics surrounding nuclear weapons, tracing the origins of the disarmament discourse back to the US dropping of nuclear weapons on Japan in 1945. Following the atomic bombing of Hiroshima and Nagasaki, a movement against the bomb rapidly took shape in dozens of countries across the world (p. 222). The author contends that, despite notable reductions in the overall stockpiles of nuclear weapons, little to no steps have been taken toward disarmament. The author argues for the establishment of nuclear-weapon-free zones, highlighting the numerous states that have achieved this through both multilateral and bilateral agreements. Nevertheless, the author neglects to emphasise that the majority of these states are geopolitically situated in non-threatening regions, thereby limiting their significance in the realm of international politics. While the discourse surrounding disarmament appears promising in theory, the feasibility of

actual disarmament is deemed unrealistic. The author illustrates this point by citing the Global Zero Campaign's highly ambitious goal of eliminating all nuclear weapons by 2030. In essence, there is a lack of pragmatic approach toward achieving possible disarmament, necessitating sustained negotiations involving leaders from all nuclear-armed states, both within and outside the Nuclear Non-Proliferation Treaty (NPT).

Furthermore, the author talks about future nuclear challenges stressing that the future nuclear age will be driven by various dynamics including civilian nuclear power and weapon proliferation. The most important dynamic being the emerging and disruptive technologies, and strategic non-nuclear weapons. These weapons have greater speed, precision and long range to narrow the gap between certain conventional and nuclear weapons systems (p.260). These technologies significantly redefine the operationalisation of deterrence. In terms of strategic non-nuclear weapons, due to advancements in technology, conventional weapons and technologies are being used for strategic purposes.

While the book provides a comprehensive exploration of various facets related to nuclear weapons and delves into debates surrounding them, a few notable shortcomings are apparent. Firstly, for a thorough understanding of the politics of nuclear weapons, the author could have explored future scenarios. While the book touches on almost all aspects of the nuclear weapons debate, it lightly covers the future implications of these weapons. Secondly, the consideration of technological developments within the nuclear debate is limited, encompassing only a quarter of the eleventh chapter.

Andrew Futter's "The Politics of Nuclear Weapons New, updated and completely revised" stands as a refined and enriched iteration of its predecessor, serving as an invaluable guide to the intricate world of nuclear weapons and their political landscape. This revised edition meticulously explores the political, strategic, and technological dimensions of nuclear weapons, offering a comprehensive understanding of their nature and impact. Futter's work is not merely an update; it represents a commendable effort to bridge educational gaps left by the

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previous edition, now providing an even more current and nuanced perspective on the ever-evolving realm of nuclear politics. The book places significant emphasis on neutrality, a factor that undoubtedly elevates its overall credibility. However, an overemphasis on neutrality, while fostering impartiality, can sometimes result in indecisive analyses. In certain arguments, taking a clear and assertive stance is necessary to advance the discussion and provide a robust foundation for informed decision-making. Overall, a well-written and balanced book with deep insight into the politics of nuclear weapons with historical examples.

### Four Battlegrounds: Power in the Age of Artificial Intelligence

Paul Scharre, ISBN: 9780393866865: (New York: W.W. Norton & Company, 2023, 496 pages)

### Reviewed by Amber Afreen Abid\*

"Four Battlegrounds: Power in the Age of Artificial Intelligence" by Paul Scharre explores the transformative impact of artificial intelligence (AI) on global power dynamics. The introduction of AI is likely to change warfare in significant ways. Just as the industrial revolution changed physical aspects of warfare, AI will change cognitive aspects of warfare. Scharre contends that AI will play a pivotal role in shaping the balance of power worldwide.

Scharre discusses the importance of artificial intelligence (AI) and lays out four sectors that will determine whether an authoritarian or democratic structure will make progress. These sectors include the appreciation and cultivation of talent; data collecting, securing and using methods; advanced computing power; and institutional structures that can use AI to develop practical applications, such as military tactics and strategy. China and the free world have different benefits and challenges in these areas. Scharre contends that the development and application of artificial intelligence would trigger a "new industrial revolution;" states that develop and adopt this technology first will gain enormous advantages in terms of economic, military, and political power. (p.12).

The book's core content is divided into eight parts: Power, Competition, Repression, Truth, Rift, Revolution, Alchemy and Fire. Parts I and II cover challenges and opportunities that militaries face when collaborating with civilian engineers to enhance AI results. The examination of some of the more ominous risks posed by AI systems, such as the issue of privacy and civil liberty, is adeptly done in Part III, which deals with Repression. Part IV, which deals with Truth, offers strong cautions against the harm that artificial intelligence (AI) can do to

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democracies by feeding a poisonous mixture of misinformation and mistrust. Moreover, the dangers of deep fakes and synthetic audio in manipulating society are also discussed in detail. In Part V, that deals with Rift, Scharre delves deeply into the intricate details of the US and Chinese AI programmes' current level of entanglements and considers the potential implications for future geopolitics after considering the governance, ethics, and technology collaborations.

"History shows that what matters most in periods of technological disruption is not getting a new technology first or even having the best technology but finding the best ways to use it," (p.218). History has shown time and again that there is no assurance that the higher-tech side in asymmetric combat will win. Militaries need to adopt and apply the technology swiftly and effectively for an advantage in the battlefield. The author has mentioned that the US military is working to find ways to get hold of the military application of AI.

Part VII addresses the realm of Alchemy, probing into the limitations of AI and emphasising crucial aspects, including the technology's unexpected behaviours and dependencies. If soldiers don't trust technology, they won't use it. For example, the Patriot Air and Missile Defence System, after its failure in the Iraq War 2003 was turned down for the rest of the mission. Hence, the institutions should build technology that is acceptable for the military use. The technical innovations along with bureaucratic adaptation is required for a robust and reliable AI system. (p. 288).

Scharre discusses numerous shortcomings of AI in Part VIII. He points out that the most effective military systems will be those that successfully combine human and machine decision-making, and the most effective militaries will be those that find ways to optimally employ human-machine teaming. (p.297) as otherwise the wars will spiral out of human control if solely entrusted to technology.

In the concluding section of the book, Scharre extrapolates potential military AI scenarios, envisioning conflicts involving AI systems for non-political reasons. However, concerns related to the rapid advancement of AI technology, surpassing expert predictions, may be

overstated in comparison to the more substantiated worries raised by Scharre. These legitimate concerns involve the premature deployment of AI systems and endowing them with excessive autonomy, leading to potentially catastrophic errors.

Evidence already exists supporting the premature use of AI, underscoring the imprudence of sensationalising its capabilities, even for the sake of capturing readers' attention. Scharre advocates for a measured approach, aligning with the broader objective of ensuring the secure, responsible, and judicious application of AI as a tool rather than a wholesale replacement for human judgment or accountability.

Scharre also looks at how AI might alter the character of future wars, which might involve drone swarms and incredibly accurate targeting and would change the way military forces are organised (p.314). The inability of AI systems to adapt successfully to changing circumstances is one of their weaknesses, however, newer machine learning is progressively overcoming this.

The book is a good examination of China and the United States' strategic military rivalry over artificial intelligence (AI) development. However, authored being a US expert with a Western bias is inclined towards critiquing China. The book offers recommendations that are geared towards positioning the US to lead in this technological race.

Scharre explores each topic in great detail, pointing out that there are key distinctions between the United States and China. China's government-driven approach offers unrestricted resources and unity of purpose, however, it limits innovation, according to Scharre. Whereas, the American system is fragmented and even chaotic, however, the best talent is drawn to it and it has the potential for growth. Scharre seems to be afraid of the Chinese lead in the race. Scharre has recommended the US for additional export controls to restrain Chinese technical advancement and more cooperation among democracies, as he doesn't want the advantage in AI to be taken for granted. Scharre suggests that China is poised to become the global leader in AI by 2030 unless the US implements certain 'course corrections' (p.29).

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Scharre has criticised the Chinese government for using AI to their advantage against society. Scharre brought up the example of China's alleged discriminatory use of artificial intelligence (AI) via its surveillance systems against certain groups of its population. (p.185) Scharre stressed that Democratic societies must come together to push back against illiberal uses of AI and advance a positive agenda for AI governance. (p.305). The focus on challenges from China's AI applications in the argument overlooks implications for the West, as they are also susceptible to issues like widespread surveillance, diminishing privacy, and information manipulation.

AI Technology is evolving swiftly in difficult ways for non-technical audiences to comprehend, but Scharre has simplified it for them. While it can be challenging to know whether to be comforted or alarmed by all of this information, Scharre does a great job of illustrating the current and future state of military artificial intelligence.

Propelling a sizable military to abandon its present emphasis on personnel, vessels, artillery, and aircraft, as the primary indicators of force capability, is unlikely. It is not going to create the right kind of urgency around learning AI, however, the military will probably benefit from this book to prevent falling too far behind in terms of AI comprehension.

### Kashmir at the Cross-Roads: Inside a 21st Century Conflict

Sumantra Bose, ISBN: 978-0-300-26271-1: (New Haven CT: Yale University Press, 2021, 352 pages)

### Reviewed by Ayesha Shaikh\*

The book "Kashmir at the Crossroads: Inside a 21st Century Conflict" is written by Sumantra Bose who is an Indian Political Scientist, with an expertise on ethnic and religious Conflicts, particularly on Kashmir and Yugoslavia. The book was published in 2021 by Yale University Press. It has 352 pages and 5 Chapters. The book describes that the Kashmir Conflict is at such a crucial stage (crossroads) that any action taken from any side at this point will have significant impact on the fate of the region. Geographically, the scope of the book is limited to the Kashmir region, though it does take into account regional and global factor impacting the conflict. The time-frame covered by the book, contrary to the title, is from 1819-2019. In 2019, BJP government resorted to a unilateral attempt to alter the constitutional status of the disputed territory. In this political context, the Hindu-nationalist motives of BJP government and the US-China competition can collectively impact the Kashmir conflict.

First chapter covers the time frame of 1819-1989, it locates the roots of the conflict through the Dogra dynasty, stretching it ahead to the Indo-Pak partition and post-partition wars. Chapter two covers the time frame of 1990-2004, marked by major insurgencies and massacres in Kashmir. The third chapter takes into consideration the time frame of 2004-2019, sequence of events till the Indian abrogation of article 370 of the Indian constitution to alter the status of Kashmir. The next chapter explains the dynamics of conflict after this development and Chapter five covers the regional and global dynamics in the wake of rise of China that can impact future of the conflict.

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Author has wrapped the whole argument in the context of global dynamics and their impact on the Kashmir conflict. The episode of clash between India and China in the Galwan Valley indicated another dimension of the conflict as there are multiple stakes involved. The author, however, portrays China-Pakistan relationship as the cause of the India-China conflict; and significantly omits India's offensive in Kashmir and China's regional balancing as the core reasons. The US-China rivalry and the India-US partnership complicates the situation. According to the concluding remarks of the author, eruption of any crisis at this stage can prove to be detrimental, owing to the involvement of the great powers. Nevertheless, the presence of Hindu nationalist elements in India are a major hurdle towards any international attempt to resolve the conflict.

Overall, the book proposes that recent developments under the BJP led Indian government as well as the regional and global dynamics have brought Kashmir at the Crossroads, where any development can have detrimental consequences. To support this argument, author has used historiography and narrative technique to incorporate local narrative. Author has used simple and descriptive language to describe the chain of events in Kashmir; however at instances, the usage of words like "Pakistan's deep state" and "praetorian Pakistan" convey the prejudices of the author. Furthermore, author has appealed to pathos by giving a human dimension to the description of the conflict. Despite being a descriptive study, author supplements the argument with conceptual grounding, where required, for instance, George Orwell's concept of Nationalism or Minxin Pie's explanation of authoritarian leadership in support of his arguments (p.192).

The book lacks engagement with the existing literature on Kashmir. It has, nevertheless, addressed a major literature gap on the issue. The existing literature on Kashmir covers a number of themes including political, diplomatic or historical dimension of the conflict (Alastair Lamb), the non-traditional approach towards conflict resolution (Hassan Askari), the gender oriented dimension of the conflict (Aparna Pande), and the Islamic dimension of the conflict (Ather Zia). Bose has comprehensively covered the dynamics of the conflict after inception of

Hindu-Nationalist government of BJP in India that prevailed as a significant gap in the existing literature.

However, there are four major contentions recurring in the literature regarding Kashmir cause and the book addresses them. Firstly, nature of the conflict: according to this book Kashmir conflict has ethnic and religious dimension but it is national in character. Secondly, the literature is split about the role that India and Pakistan have played in the conflict into pro-Indian or pro-Pakistani fragments. Thirdly, the role played by the local population of Kashmir is either denied recognition or if recognised, they are painted as terrorists or freedom fighters. The book addresses the struggle as a humanitarian one and the casualties as a loss. Finally, most of the literature about Kashmir does not take into account the role that global politics has played and does play to shape the issue, when assessing the role of international community with respect to Kashmir. The book "Kashmir at the Crossroads: Inside a 21st Century Conflict" has comprehensively encompassed all the dimensions of the conflict.

### The New Nuclear Disorder Challenges to Deterrence and Strategy

Stephen J. Cimbala, ISBN 9781138359451: (England: Ashgate Publishing Limited, 2015, 254 pages)

### Reviewed by Syed Raza Abbas\*

The book "The New Nuclear Disorder Challenges to Deterrence and Strategy" is written by Stephen J. Cimbala, a distinguished professor of Political science at Penn State Brandywine University in the United States. He is the author of many books and research articles and has contributed book chapters on international relations, defence and security studies, nuclear weapons and arms control, and intelligence studies.

The main theme of this book is nuclear weapons and the challenges they pose to deterrence and nuclear strategy. This book has 10 chapters and 254 pages, including an introduction, summary, and bibliography. The author used research articles, papers, books, official reports and his own analysis as a source for writing this book. Nuclear weapons have played an instrumental role in navigating the global power competition between the Soviet Union and the United States in the Cold War era. Quoting Bernard Bodie, the famous American Strategist, before the advent of nuclear weapons, the sole purpose of militaries was to win wars, but from now on, their main aim would be to avert war. Those words would prove to be true, as it is evident from the events and politics of the Cold War. The United States (US) and the USSR came close to the brink of conflict, but never engaged in direct war. The rationale behind the restraint was the consequence and conscious realisation of the lethality and destructive power of nuclear weapons. During the 1956 Suez Canal crisis, the Soviet Premier issued threats of launching missiles toward London and Paris and sending troops to Egypt, which forced the Americans to put pressure on Britain, France, and Israel to withdraw and sign a ceasefire with Egypt. Similarly, during the Cuban missile crisis of 1962, both the US and USSR came to a thaw, but effective diplomacy

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saved the world from a nuclear war. During the able archer exercises of 1983 by the North Atlantic Treaty Organization (NATO) in Germany to test the Nuclear Command and Control of Western theatre, Soviets drew the conclusion that NATO was preparing to conduct a retaliatory strike against Soviet nuclear infrastructure. There were numerous other instances during the Cold War where the probability of nuclear exchange was very high.

Despite the adversarial relationship between the US and the USSR, they successfully developed mechanisms that helped maintain strategic stability throughout the Cold War. Those mechanisms included mutual cooperation on areas of convergence like the Non-Proliferation Treaty (NPT), containing the spread of Nuclear weapons, International arms control measures, and bilateral arms control measures like Anti-Ballistic Missile Treaty (ABM 1972), Strategic Arms Limitation Talks (SALT I/II), Strategic Arms Reduction Treaty, Intermediate-Range Nuclear Forces (INF) and various other measures which helped in maintaining deterrence stability. The contemporary era poses more serious and critical challenges to nuclear deterrence and strategy. The possibility of fissile material falling into the hands of non-state actors and terrorist organizations such as Islamic State (ISIS) and Al-Qaeda. Cyber security threats pose a more serious challenge to enrichment facilities' safety and security. A successful cyber-attack could cause disruption in the nuclear facilities and command and control infrastructure of any nuclear power.

The findings of the book state that nuclear weapons are subject to the discipline of geography and geo-strategy. The geographical context for nuclear weapons includes their mode of deployment, planned launch trajectories, concealment and survivability, and intended targets. (Page.10) Geography also plays an important role in absorbing the brunt of a nuclear first strike and launching a nuclear retaliatory strike through second-strike capability.

Nuclear crisis management in the digital age requires flexible thinking and war planning. Historically, lessons learned from the Cold War era about nuclear crisis management require clear communication JSSA Vol. IX, No. 2 Syed Raza Abbas

and transparency. Moreover, there is always a requirement to give adversaries a face-saving exit from the crisis to defuse the escalating crisis. Nuclear crisis management in the ongoing information age is more challenging due to the inculcation of cyber warfare and cyber glitches, which makes the signalling, assessments and intentions of adversaries more complicated. There is so much scholarship available on how to start a nuclear war in the form of state-sanctioned military doctrines; the problem lies in how to end such a war whose consequences could be biblical. (Page.45)

Scholars and researchers need to focus on formulating future deterrent strategies for more widespread and localized nuclear conflicts in the post-Cold War era. During the Cold War, there were only two giant opponents, the US and the USSR, but the post-Cold War world is marked by the possibility of regional or local nuclear conflicts. e.g., Pakistan and India, Iran and Israel, the Korean peninsula and Ukraine. Missile defences have been the more contentious issue between the US and NATO on one side and Russia on the other side. The US and NATO view is that the European-phased missile defence plan is to deter any attacks on Europe from any rouge states or other non-European states. Whilst Russian view NATO and US missile defence plan as threat to Russian second strike capability.(Pg.130). In Asia, due to the ongoing conflicts and adversarial relationship between regional countries, there are chances of proliferation. Tensions in the Korean Peninsula stimulate the proximate states like South Korea and Japan to hedge for nuclear weapons.

Traditionally, US policy makers and arms control experts are pessimistic about the spread of nuclear weapons. There is a class of US scholars and political scientists who view nuclear proliferation optimistically. They are of the view that the gradual and slow spread of nuclear weapons would help in achieving larger stability at the global level. Their view is that the sole US deterrent is not enough to deter interstate conflicts and regional conflicts from erupting. (Page.151)

Vladimir Putin used the method of hybrid warfare by combining instruments of both soft and hard power to annex Crimea from Ukraine in March 2014. Russians waged an indirect attack on Crimea by using

special military operatives, disinformation, strategic deception, and fifth columns surrogates such as insiders from Ukrainian law enforcement agencies and pro-Russian separatists in the annexed region of Crimea. The US and NATO responded to this Russian aggression by conducting more provocative military exercises near the Russian border in Eastern Europe. The European Union and the US imposed crippling economic sanctions on Russia, but it was the presence of the US and NATO nuclear deterrent which prevented the spread of conflict to the European theatre. The anxiety about the possible expansion of the conflict into the European theatre and a direct confrontation between NATO and Russia persists due to the uncertainty and ambiguity about each other intentions. (Pg.217)

This book is written very eloquently and coherently and is an effort by the author to educate researchers and policy practitioners to get a thorough understanding of the politics of nuclear weapons. The book explains the academic foundations of nuclear deterrence and nuclear strategy and tells us about the forthcoming challenges to deterrence and strategy in the second nuclear age. The author has made a clear distinction between the nuclear politics of the Cold War era and has termed it the nuclear first age. According to the author, the post-Cold War era is marked by the nuclear second age or nuclear weapons in the information age. The author emphasised the need to learn lessons from the Cold War era between the US and the USSR and apply those lessons learned to the Second Nuclear age.

The author's claim about Pakistan's nuclear weapon programme falling into the hands of Jihadists is baseless, and it is evident from the global nuclear watchdog reports that the safety and security of Pakistan's nuclear weapon programme are ranked way better than India's. Nuclear Threat Initiative (NTI), in its 2023 report, ranked Pakistan 19 out of 22 in Theft: Secure materials and 32 out of 47 in Sabotage: Protect Facilities. Overall this book is knowledgeable and researchers and policy makers should read this book to enhance their understanding about the politics of Nuclear weapons. The downside of this book is that Author has repeatedly used some terminologies which were not academic and has made some baseless claims about the nuclear program of Pakistan.



### **Journal of Security and Strategic Analyses**

Strategic Vision Institute (SVI) is pleased to announce the publication of July-December (Vol. IX, No. 2) of its Bi annual Journal: Journal of Security and Strategic Analyses (JSSA). It is a peer-reviewed journal focusing on contemporary issues of peace, security and strategic studies.

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