

The Influence of Arms

Explaining the Durability of India–Russia Alignment

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The US–India relationship—described as “a defining partnership for the 21st century”—has seen a dramatic rise over the past two decades.¹ Seeing India as a “natural ally” with “shared values,” the United States undertook great efforts, beginning in 2005, “to help India to become a major world power in the 21st century.”² To that end, Washington has sought to boost New Delhi’s standing in the global order and international institutions, bolster India’s arms capabilities and technology base, and enable interoperability for military operations. Today, India has been designated a “major defense partner” on par with NATO allies, apex national security officials underscore how “vital” and “critical” India is to US strategy, and US officials contend India has a “pre-eminent role in the Administration’s Indo-Pacific vision.”³ Despite the American embrace, India also professes a great friendship and unprecedented “strategic partnership” with Russia, a country explicitly regarded by the United States as a hostile revisionist adversary and long-term strategic competitor.⁴

India has embraced Russia in a “special and privileged strategic partnership” that features regular dialogues between the heads of state as well as ministries, substantial advanced arms sales, and intergovernmental commissions to cooperate in trade, energy, science, technology, and culture. India has also joined Russia in new institutions and “minilaterals” (for example, the Shanghai Cooperation Organisation [SCO]; the Brazil, Russia, India, China, and South Africa [BRICS] grouping; and Russia–India–China [RIC] trilateral meeting), demurred from opposing Russia’s revisionist assault on the global order (from Crimea/Ukraine, to democratic election interference, to the Skripal chemical weapons attack), and extolled the partners’ shared “civilizational values,” pledging “new heights of cooperation through trust and friendship.”⁵

Strategic promiscuity aside, that a democratic, rule-bound, status-quo country like India would so strongly identify with an autocratic, rule-breaking, revisionist country like Russia is certainly “anomalous” and has baffled and frustrated American analysts and policy makers.⁶ Moreover, these seemingly dissonant leanings—

between the chief proponent of the rules-based international order and one of its principal antagonists—present a fundamental puzzle and question for policy makers. Given different interests, institutions, and ideas about global order, *what has kept India and Russia bound together and why?* This line of inquiry should be of interest to US policy makers seeking to make sense of Russia’s enduring appeal as well as expanding the strategic relationship with India.

This article seeks to offer a set of historic, political, ideational, and material factors driving the India–Russia relationship forward that require scrutiny. In short, we find that while the residue of Cold War collaboration, contemporary geopolitical alignments, and ideological convergence on a polycentric global order all contribute, the material arms relationship provides the strongest and most durable driver of the relationship. The breadth of Russian-origin platforms in the Indian military—which our analysis suggests composes 85 percent of major Indian weapons systems rather than the 60 percent figure often cited⁷—have created a “lock-in” effect, while the depth of relative support to India’s technology base and strategic systems have engendered a relatively high degree of indebtedness and trust in key strategic circles. Yet the quantity and sensitivity of Russian contributions to the Indian arsenal—features that could reinforce and sustain the relationship much to the chagrin of US policy makers—have largely been underappreciated.⁸ At the same time, we find scant evidence that India’s extended arms collaboration and geopolitical relationship with Russia have led to a diffusion of strategic thinking that has directly or indirectly shaped military doctrine.

Following this introduction, this article proceeds to detail the path dependency from the pair’s historic Cold War ties. Section three examines broad contemporary strategic alignment maintained due to geopolitical configurations and mutual political support for balancing threats. Section four assesses overlapping ideas and strategic worldviews regarding the international order. Section five hones in on the material bonds that we judge to be the leading driver that has carried the relationship during and after the Cold War: direct arms and technology transfers. Even if the India–Russia relationship is comparatively narrow without significant economic and people-to-people ties, this final component of the relationship, in particular, has preserved a high and unique degree of trust between India and Russia, which ensures the relationship will remain strong for decades. Following this, section six considers whether certain material arms transfers and technology sharing have had a distinct feedback effect on strategic concepts or doctrines, which could potentially render India unconsciously even more aligned to Russia. Finally, we conclude with implications for India’s future relations with Russia and the United States.

Cold War Inheritance

India initially moved toward the Soviet Union owing to a set of security, economic, and political motives, but this relationship has continued to inform India's preferences and incentives, while shaping future relations with great powers long after the dissolution of the Soviet Union. Although India was a self-professed nonaligned power, by the second half of the Cold War it had clearly gravitated toward the USSR through significant purchases of Soviet defense equipment, the signing of the 1971 treaty, dense scientific cooperation, and *de facto* endorsement of the Soviet occupation of Afghanistan.

Origins

There are several reasons why India first gravitated toward the USSR. Prime Minister Jawaharlal Nehru's anticolonial sentiments set the country on a path to autonomy and self-reliance, but Defence Minister Krishna Menon's socialist leanings drew India closer to the Soviet Union. India's nonalignment approach initially sought to counterbalance its legacy defense and bureaucratic ties to the British and the West by actively strengthening its defense relations with the USSR.⁹

More significant though was the US–Pakistan alliance. While Nehru was fundamentally skeptical of the United States and did not want to be drawn into the Cold War by siding with either the United States or the Soviet Union,¹⁰ US alignment with Pakistan forced India's hand. US partnership with Pakistan, first through the Southeast Asia Treaty Organization (SEATO) and then the Baghdad Pact in the 1950s, naturally prompted India to lean toward the USSR to balance Pakistan.¹¹

New Delhi and Moscow also supported each other internationally beginning in the 1950s, with the Soviets quickly adopting the Indian position on Kashmir (and casting vetoes in the United Nations Security Council to back them) and calling for negotiations over Sino-Indian border disputes rather than backing the Chinese. The Soviets were motivated to keep India out of the Western bloc and to check China's expansion.¹² Moscow also sought to bolster India internally through substantial economic aid beginning in 1955 totaling 1 billion USD in long-term credit over a decade, including support for heavy industrial projects, and pressing the Communist Party of India to move from militarized opposition to peaceful opposition within the Indian parliamentary democracy.¹³ India, for its part, voted against the UN General Assembly resolution that called for Soviet troops to withdraw from Hungary and tacitly supported their invasion of Czechoslovakia.¹⁴

Furthermore, arms sales added a new dimension to the relationship. As the Sino-Soviet relationship began to fray and India grew more capable of managing

the internal communist threat to its security in the 1950s, New Delhi began to look to Soviet military technology to balance China, and more importantly Pakistan. After India began its defense cooperation with the USSR with engine acquisitions, one of the first major arms agreements it made was of its first supersonic jet fighter, the MiG-21, in 1962, which opened the gate to large-scale defense cooperation, production, and arguably dependence (to be discussed later).

Tilt

India more explicitly tilted toward the Soviets in the second half of the Cold War, particularly during and after the events of 1971. Though a treaty had been offered as early as 1969, India's impending clash with Pakistan moved it to formalize the Indo-Soviet Treaty of Friendship and Cooperation in 1971 under Indira Gandhi, who was also more ideologically aligned with the Soviets than the Americans.¹⁵ This tightening of relations was largely due to India's wartime experience. After the United States ended all arms sales to India and Pakistan during the 1965 and 1971 wars, India came to perceive the Soviets as more reliable. However, India did not want to be perceived as a Soviet ally; so, New Delhi limited the scope of the Friendship Treaty and excluded any mutual defense clause.¹⁶ The two sides also signed the treaty for different reasons: the Soviets desired India's support against China, and, although India also sought to deter China, New Delhi believed that the treaty implied Soviet support for its position on East Pakistan.¹⁷ Additionally, even while the Soviets feared Pakistan's dismemberment, this treaty gave Gandhi the confidence to intervene in the Bangladesh War of Independence against West Pakistani forces, as she perceived the treaty as a deterrent to Chinese or US intervention on behalf of Pakistan.¹⁸

Perceptions of Russian reliability and American perfidy can be distilled in a single US-Soviet engagement during the 1971 conflict. While the details remain sketchy and disputed, several accounts suggest the Indian leadership was convinced that Russian naval intervention in December 1971 directly helped deter US military action against India in support of Pakistan.¹⁹ When the US dispatched warships—including the USS *Enterprise* aircraft carrier to the Indian Ocean—to deter India from destroying Pakistan, several accounts suggest around 16 Soviet vessels were believed to have entered the region and begun trailing US ships as others positioned themselves to intercept with antiship missiles backed by nuclear submarines, forcing a US departure.²⁰

New Delhi's tilt to the Soviets only sharpened after Moscow refrained from condemning India's 1974 nuclear test and even agreed to ship heavy water for India's nuclear reactors after the United States and Canada suspended shipment.²¹

The Soviets also backed India's military involvement in Sri Lanka in the 1980s, while India backed the Soviet invasion and occupation of Afghanistan.

It might be said the USSR perhaps overinvested in India—even in its waning days arguably “prepared to pay more than it received”—as it harbored visions for Delhi at the center of a Soviet-led security system in Asia.²² The Soviets made assurances without requests for reciprocity. During a visit to New Delhi soon after the Sino-Soviet border clashes in 1969, Soviet Premier Alexei Kosygin promised India that “if your great country is threatened at its borders, then we will be there to help you.”²³ Nevertheless, despite the tremendous strategic altruism Moscow showed New Delhi, believing India to be its “bridgehead in Asia,” this never materialized even as India continued to view itself as “indispensable” to Moscow, and not a client state.²⁴

In total, a slight ideological preference for the Soviet Union, Washington's support for Pakistan, Moscow's crisis-time political and military support for India, but most importantly, a robust and generous arms sales program that facilitated an enduring military-technical relationship (detailed later) coalesced to form the logic behind the Indo-Soviet relationship, which has, in many ways, carried over into the present day.

Path Dependence from Cold War

The Indo-Russian relationship has persisted in the post-Cold War period due, in large part, to path dependence. There is accumulated familiarity, goodwill, and seemingly emotional residue among senior Indian diplomats and bureaucrats due to the various elements of Soviet support for India detailed above.²⁵ Even as a dissolving Soviet Union created uncertainty for many of its partners, including India, the Soviet state, and later Russian scientists, continued to provide India with advanced nuclear and space technology.

Additionally, path dependence suggests the relationship has achieved some lock-in effects for several potential reasons: high fixed costs sunk into the venture render reversal or switching quite difficult (and the risk that much of India's existing stock of materiel could be compromised if Russia denied spare parts, ammunition, or servicing support); the accumulation of learning by organizations, operators, and maintainers of Russian systems; and, potentially, the network effects between operational, procurement, financing, and political organizations like the military services, the Ministries of Defence and External Affairs, and political leadership.²⁶

In short, the historic experiences of alignment, fulfillment of commitments, and the joint weathering of major crises undoubtedly all strongly influence India's decision to keep Russia as a close partner. However, as we will explore later in this

article, the accumulated stock of materiel from the Cold War created specific lock-in effects that ensured a robust defense sales relationship with Russia even after the end of the Cold War.²⁷

Contemporary Geopolitical Alignments

The Cold War is over, but even if ideological ties no longer bind as they once did, India and Russia still share broad political and strategic convergences on several key issues in Asia. These priorities include mutual silence, if not political support, in conflicts with key adversaries as well as stability in Eurasia through a balance of power with China that entails engagement and hedging rather than direct confrontation. However, friction emerges regarding either state's relationships with the United States, China, Pakistan, and Afghanistan.

Mutual Backing

Historically India and the USSR embraced what one scholar describes as a “reciprocity of silence.”²⁸ During the Cold War, through forbearance, silence, and abstentions, India effectively backed Soviet invasions in Eastern Europe and Afghanistan, while the Soviets supported India in its wars with Pakistan, its military operations in Goa, Bangladesh, and Sri Lanka, and its position on Kashmir at the UN.²⁹ The Russian “all-weather friend” stood by New Delhi even after India's nuclear tests in 1974 and 1998. More recently, Russia became the first member of the United Nations Security Council to endorse India's position on Kashmir after New Delhi abrogated the autonomy provisions of the state in 2019, imprisoned political leaders, and reinstated central control.³⁰ In return, India has defended or remained silent on Russian actions in the Syrian conflict, its seizure of Crimea and destabilization of Ukraine, political interference in democratic elections, and its position on chemical weapons use.³¹

The summer 2020 Sino-Indian border crisis in eastern Ladakh further illuminated India's dependence on Russia. Early in the crisis, Indian Defense Minister Rajnath Singh discounted pandemic lockdowns to travel to Moscow, confer with Russian defense officials, secure emergency supplies of spare parts and equipment, purchase new fighter aircraft, and seek expedited transfer of arms purchases. India may have also sought Russia's help as a potential crisis manager helping to defuse the border clashes in India's favor as they were credited with doing during the 2017 Doklam standoff.³²

Priority of China Threat

Russia and India possess a shared concern over China and mutual interests in contending with Beijing's rise but also identify higher priorities, less confrontational approaches, and opportunities for cooperation with China. While neither state has sought to overtly hard balance China, India has hedged between slowly building some internal capabilities, rhetorically supporting US regional strategy, and challenging Chinese initiatives, while carefully trying not to draw China's ire. In comparison, Russia appears to have bandwagoned for now, strengthening its military and economic ties to China. Many attest that in private though, Russia remains profoundly apprehensive of Beijing due to population asymmetries, China's encroachment into Central Asia, and its bypassing of Russia to get to Europe.³³

First, Russia and India do not view their eastern borders with China as their primary threat. At present, Russia still perceives US–NATO presence to its West as its main threat. Despite some shifts underway since the Sino-Indian clashes in Ladakh in summer 2020, Indian force posture, deployments, and current Indian doctrine suggest it sees Pakistan as the more immediate threat.³⁴ These legacy concerns dominate both states' conventional force planning and short- to medium-term focus. While both are suspicious of China and its intentions, they appear to prefer free-riding or buck-passing by letting Western states, particularly the United States, deal with China.³⁵ India's and Russia's borders with China are also lengthy, a geographic vulnerability that may partially account for their desire to keep tensions low.

India's and Russia's theories of how China should be managed also differ from the prevailing thoughts of the United States and some of its allies, like Australia and Japan, who have chosen to counter China through hard balancing: military build-ups and deepening alliance relationships to push back against Chinese influence and economic power.³⁶ Conversely, Russia and India have preferred a more diplomatic, multilateral "tethering" strategy with China, focused on mutual benefit.³⁷ This has come in the form of substantive political investments in some multilateral alignments including China, such as the RIC trilateral,³⁸ BRICS, and SCO.

Despite some apprehension, Russia and India have pursued deeper economic cooperation with China while minimizing confrontation.³⁹ For example, after the 2017 Doklam border dispute, Prime Minister Narendra Modi went to great lengths to curb friction points, meet President Xi Jinping in a bilateral Wuhan summit to discuss pragmatic economic and information-sharing arrangements.⁴⁰ Russia's embrace of the Belt and Road Initiative (BRI) is well known, but India has criticized China's BRI out of concern for sovereignty, transparency, and sustainability.⁴¹ Nevertheless, India has sought to work around this to enhance China–India trade

and investment, though the events of 2020 have also put this in flux.⁴² India maintains large financial stakes in the China-led Asian Infrastructure Investment Bank, and since 2014, has received at least 10 billion USD in Chinese investments, with planned investments totaling 26 billion USD.⁴³

Despite different threat prioritization, tethering, and economic cooperation, India and Russia seek to hedge their bets with China, sometimes in tandem. Moscow nurtures a relationship with both Asian powers, even as Russia helps India acquire defense technology to compete with China and pursues a rapprochement with Japan.⁴⁴ Indian relations boost Russia's political and economic status for potentially many reasons: a "preclusion" strategy with Russia to prevent a deep alliance with China; a rising-power strategy to distribute the costs of balancing while minimizing opposing coalitions; or an extractive strategy to "enhance its bargaining power with the US."⁴⁵ While India is more open about supporting the US Indo-Pacific strategy and hedging China, Russia may be assisting it by aiding India's military modernization.

Geopolitical Friction

Of course, contemporary geopolitical conditions also bring innumerable frictions. Both India and Russia have partnered with each other's rivals and adversaries. This section explores how these partnerships have created a divergence in the Indo-Russian relationship that both sides have attempted to compartmentalize to maintain their partnership.

India-US Relations. For Russia, India's closer partnership with the United States has become a source of unease. Along with harmonizing its Indo-Pacific strategy with the United States—which Russia has been critical of—India has recently upgraded the Quad dialogue to the ministerial level and pledged to purchase more US weapons systems.⁴⁶ India has managed to straddle both relationships with noncommittal hedging, but Washington entrenched a harder position on revisionist competitors in the 2018 *National Defense Strategy (NDS)*, which may box New Delhi into zero-sum choices. An India hewing closer to US positions on international order could alienate Moscow.

Russia-China Relations. The Sino-Russian defense relationship has deepened in recent years in the form of joint exercises, high technology sharing and codevelopment, cyber security, and space ventures.⁴⁷ Russia's relationship with China has progressed and could generate two vulnerabilities for India, as the latter continues to rely on Russian arms. First, if there was another border conflict with China (or even with Pakistan), Beijing's asymmetric leverage on Moscow may press Russia to slow or arrest the supply of spare parts and ammunition.⁴⁸ Second, in peacetime, China's acquisition and knowledge of advanced Russian systems can

allow it to identify and exploit weaknesses in India's defenses. India cannot easily mitigate these risks because sudden procurement shifts may cause Russia to deny India critical spares or maintenance before India can sufficiently diversify.⁴⁹

Russia–Pakistan Relations. Russia's relationship with Pakistan has been quite possibly a greater source of frustration for India than the Russia–China entente because India sees Pakistan as a direct near-term threat.⁵⁰ Despite periodic attempts at warming in the 1960s, Russia–Pakistan relations turned hostile in the 1980s after the latter sponsored Afghan mujahideen against Soviet forces, a relationship that persisted in the post–Cold War era.⁵¹ Today, though, Moscow has been slowly improving relations—with sales of attack helicopters to Pakistan and three military exercises—as Russia positions itself for a post-US withdrawal Afghanistan.⁵² While some analysts dismiss a Russian pivot as mostly symbolic, in part to enable collaboration on Afghanistan and because Pakistan simply cannot afford substantial amounts of Russian equipment at commercial prices, others fear it is a warning to India about diversification.⁵³

Afghanistan End Game. A final realm of India–Russia friction appears in their divergent approaches toward the Afghanistan conflict. While India has long opposed a political reconciliation between the Taliban and the government, Russia's theory of regional stability has led it to support the Taliban in recent years. While India perceives the Taliban as a Pakistani proxy and a potential host to regional anti-India militant groups, Moscow sees the Taliban as a potential bulwark against the transnational terror groups—like the Islamic State (ISIS)—that Russia most fears.⁵⁴ Nevertheless, Moscow's and New Delhi's views may converge during the peace process, since they share an interest in limiting the degree of Taliban influence in a future power-sharing government. Of particular interest is whether Russia permits India to reactivate and scale up its military and intelligence presence at Ayni Air Base in Dushanbe, Tajikistan, where India previously had been able to conduct logistics and supply operations in the 1990s.⁵⁵

Views of International Order

Despite the tensions outlined above, in many ways, India and Russia share a strategic approach to world order.⁵⁶ India and Russia share several similar theories of how the international system should be organized—particularly their embrace of “polycentrism,” which encompasses both spheres of influence and multipolarity.⁵⁷ However, they hold divergent views on the international rules-based order.

Spheres of Influence

Moscow and New Delhi are strong proponents of spheres of influence, with Russia arguing that it should have unrivaled influence over parts of the former Soviet Union and those states in the Commonwealth of Independent States, and India asserting that its cultural ties in the Indian Ocean Region (IOR) constitute a sphere of influence.⁵⁸ (To be sure, some contend the United States also engages in this thinking with the de facto extension of its historic Monroe Doctrine to Latin America).⁵⁹ Therefore, both states believe that their role as the regionally dominant power bestows upon them the right to exert influence over smaller states, preventing them from forming alliances with outside powers. Polycentrism for Russia extends beyond security interests to the protection of political, economic, and cultural spaces impervious to Western liberal ideas.⁶⁰ India has embraced Western values for decades, but a potential sociopolitical transformation underway may give rise to a similar nationalist defensiveness and antipathy toward Western liberalism.⁶¹

While Russia is undoubtedly suspicious of US engagement in its sphere of influence or “areas of privileged interest,” it is often not appreciated that New Delhi too jealously guards India’s own sphere of influence and has historically “firmly stood against US presence in the region.”⁶² In the 1980s, India got entangled in a civil war in Sri Lanka to preclude US regional involvement and then collaborated with Moscow to designate the Indian Ocean a “zone of peace” to eject US forces from the island base of Diego Garcia.⁶³ Until late 2020, India had not only vetoed a plan for US basing rights in the Maldives but also pursued a diplomatic strategy that has complicated current US basing in Diego Garcia.⁶⁴

While India supports the US vision for a rules-based order throughout the Indo-Pacific, New Delhi still desires that its Western partners “treat South Asia and the adjoining Indian Ocean waters as the ‘traditional sphere of Indian influence.’”⁶⁵ India’s desire for “political hegemony” in the IOR, and in particular India’s views on legal jurisdiction, freedom of navigation, and foreign military surveying within its exclusive economic zone, conflict with the UN Convention on the Law of the Sea.⁶⁶ While some claim India has sought to cooperate and not dominate regional states, others contend that the resentment toward India from its neighbors stems from its heavy-handedness, and lack of economic heft to underwrite regional integration.⁶⁷

Multipolarity

In a joint press conference following a 2018 summit with Pres. Vladimir Putin, Prime Minister Modi stated, “Russia and India agree on multipolarity and multilateralism in the world.”⁶⁸ Although India has aligned with the United States

against China, New Delhi does not wish to be steered into a bipolar world order where it plays a subordinate role. However, Washington seems poised to replicate its Cold War alliance strategy that embraces a bipolar distribution of power, with a US-guided, but looser, “networked security architecture” in place of a “hub and spokes” system.⁶⁹ The residue of India’s Cold War nonalignment posture, though, predisposes New Delhi to oppose great-power competitions, jealously guard its strategic autonomy, and balk at serving as a vessel for another state’s strategic priorities. India’s theory then is not to coalesce under a single Western bloc but to support geopolitical pluralism through multialignment with regional powers like Russia, the European Union, Japan, the United States, and even Iran.⁷⁰ However, Russia and India do differ on which state is the target of the multipolar reordering: Russia wants an end to US hegemony, while India wants to preempt Chinese hegemony in Asia.⁷¹

Rules-Based International Order

While India’s and Russia’s views of spheres of influence and multipolarity generally converge, their view of the status-quo global order diverges. New Delhi recognizes the immense benefits India has accrued from the status-quo order and, therefore, has some investment in maintaining it. In a noteworthy speech at the 2018 Shangri-La Dialogue, Prime Minister Modi articulated India’s support for a rules-based order built on international law, a respect for sovereignty, and equal access to the commons.⁷² In harmony with the US Indo-Pacific strategy, India has prioritized protection of the free flow of trade throughout the region and supported the US-backed status quo. Simultaneously, India’s support for this order comes with qualifications, as it has left the door open to be “inclusive” of China and Russia playing a constructive role in the region.⁷³

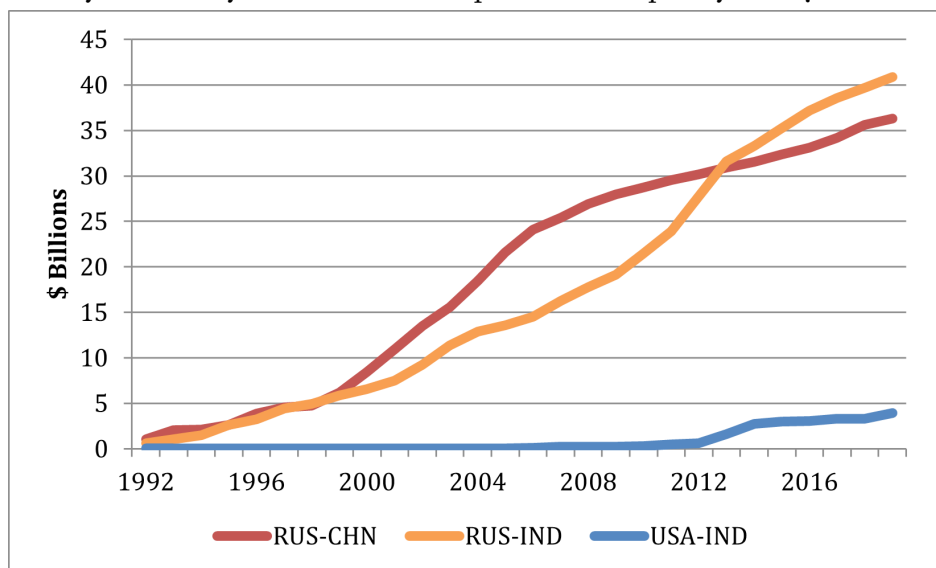
In contrast, Russia has explicitly broken with parts of this order. Moscow perceives foreign intervention (particularly in the former Soviet republics), democracy promotion, and the free flow of information as threats to Russia’s regime and international interests.⁷⁴ Moscow has developed a raiding or “brigandry” strategy as an asymmetrical response to Russia’s power imbalance with NATO. Such indirect coercion, disruption, and cost imposition—characterized by many as “hybrid,” “gray zone,” and “information warfare”—seek to compel Washington to compromise on a new power condominium for Moscow.⁷⁵

Though New Delhi and Moscow share a belief in polycentrism, consisting of multipolarity and spheres of influence, and India may be sympathetic to Russia’s critiques of the international order (consistent with India’s critiques of Western moralist intervention), India likely does not endorse Russia’s brigandry strategy, which Islamabad may draw inspiration from for Pakistan’s own disruptive playbook

within South Asia.⁷⁶ Nevertheless, New Delhi's willingness to accept or even defend Russia's methods stands in conspicuous contrast to India's rhetorical defense of the rules-based international order. One cannot dismiss that Indian interests may be advanced if reckless Russian brigandry effectively accelerates a transition to polycentrism.

Enduring Arms Relationship

While the geopolitical and ideational agreements certainly enhance the strength of the India–Russia partnership, the true core of the relationship is the abiding arms relationship, which has persisted since the Cold War and evolved from arms sales and technology transfer to the lease of a nuclear submarine and technical advising on the development of an indigenous Indian ballistic missile submarine (nuclear-powered) (SSBN). The depth of this relationship may not have been fully appreciated or at least may have been discounted. It is estimated that the Soviet Union supplied India with 35 billion USD in equipment between 1960 and 1990, most without immediate payment, and that too to be paid in Indian rupees at concessionary interest rates.⁷⁷ Former deputy chairman of India's Planning Commission, PN Haskar, remarked that this Soviet/Russian support helped to bolster "India's dignity, India's sovereignty and India's independence."⁷⁸ Indo-Soviet defense ties began in the 1960s and have persisted ever since, maturing from a buyer-seller dynamic to codevelopment of weapon systems.



(Source: Arms Transfers Dataset, Stockholm International Peace Institute)

Figure 1. Cumulative value of arms transfers by seller-buyer between 1992-2019.

Despite Indian frustrations with issues of quality, spares, and maintenance costs of Soviet-origin systems, Russian officials estimate New Delhi has purchased a hefty 70 billion USD worth of arms from Moscow since 1991, including third- and fourth-generation fighter aircrafts, transport helicopters, aircraft carriers, nuclear submarines, frigates, cruise missiles, air defenses.⁷⁹ Today, India has absorbed a third of Russian arms exports over the past decade, far exceeding China's arms purchases from Russia, and the vast majority of India's contemporary armed forces systems originate from Russia.⁸⁰ While the United States touts as the cornerstone of its relationship with India the fact that arms sales have grown from nothing to between 16–18 billion USD over 15 years, New Delhi signed 15 billion USD in new arms contracts with Moscow in the span of a year between 2018 and 2019.⁸¹ Though SIPRI data differs from other sources due to accounting procedures, anchoring years, and exchange rates, the data in figure 1 suggests that while Indian arms purchases from the US grew from zero in 2005 to 4 billion USD over 15 years, in that same period, cumulative Indian arms purchases from Russia grew by seven times that figure.

Cold War Acquisitions

New Delhi's procurement of the MiG-21 in the early 1960s provided the first big boost for Indo-Soviet defense ties. India's relationship with the Soviets served to not only secure its immediate security needs but also to facilitate technological transfers in service of long-term goals like defense production indigenization and industrial development.

Reliable, cost-effective supplier. Before the MiG-21, India's fighter squadrons consisted entirely of British and French aircraft. India chose to purchase the MiG-21 rather than the alternative American or British offers because of the MiG's superior speed, cost, and ease of operation and maintenance as well as the supplier's efficient, centralized decision making and absence of any conflicting defense relationship with Pakistan. On top of this, the Soviets offered assistance in the manufacture of the MiG-21 in India and integration of India into the supply chain for airframes, engines, and component parts.⁸²

Furthermore, around the same time, the Indians were unable to acquire US naval equipment or receive approval to borrow three British destroyers. These failures led Indian officials to question whether the West was a reliable source for arms. India then moved to procuring submarines, frigates, bombers, attack and transport helicopters, air defense systems, and tanks from the Soviets. Geopolitical factors such as the Sino-Soviet split and the Sino-US détente also pushed New Delhi and Moscow to develop more significant military-industrial ties. Ultimately, India's preference for Soviet-origin weapons was nurtured over the years

and came down to “the perceived low risk of embargoes or of denial of technologies and spare parts, together with easy credit and barter arrangements, low price and competitive performance.”⁸³

The terms of the Soviet arms trade to India were eminently favorable, often referred to as “friendship prices.” The Soviets offered advanced systems at low prices, allowing India to stagger payment over an extended period and purchase in rupees. Alternatively, Western governments often required upfront payment before delivery and rarely allowed sales in local currency.⁸⁴ Furthermore, the pricing was set at the same time as the Soviet political leadership approved the sale, not separately by the private firm delivering the system. While European arms makers operated similarly, American firms did not, creating an additional complicating factor.⁸⁵

The persistence of the Indo-Soviet relationship has been attributed to the pragmatic transactionalism of both countries. The Soviets were attracted to India because of its large defense market, even though they were dissatisfied with the payment system, at times. By the end of the Cold War, the Indian military consisted of an estimated 70-percent Soviet-origin equipment, but our data suggests this has actually grown over the past three decades.⁸⁶

Indigenization. In addition to immediate security needs, the Indians also selected the MiG-21 in the hopes that it would result in the transfer of technology and capacities to stimulate indigenous defense production of advanced weapons systems. Indigenization served two purposes: first, it would ensure military self-sufficiency and greater autonomy from major powers; second, there was the potential for economic spillover effects into the commercial domain.

The extent of Soviet assistance and licensing of arms production to India was substantial—India received more assistance with its production than any other developing country that purchased Soviet arms. This included assistance with the construction of factories to assemble licensed MiG-21 and MiG-23/27 fighters as well as to repair T-72 tanks.⁸⁷ More significantly, after the Soviets denied China licensing production, they granted this opportunity to India (though the USSR did offer significant technological transfers to China in the 1950s).⁸⁸

Finally, India’s desire for technology transfers to help speed the pace of indigenization was aimed not only at defense production but also at industrialization more broadly. New Delhi, much like Japan and Israel, sought to diffuse the technical learning and human capital India built up in the military-industrial complex into the commercial sector, with the goal of boosting technological innovation.⁸⁹ Though this has had mixed success—in part because of India’s lack of absorptive capacity, including the requisite technological and industrial base and tacit organizational knowledge—this motive still animates Indian procurement decision making.⁹⁰

Contemporary Arms Trade

The breakup of the Soviet Union sent New Delhi scrambling for sustainment lines and alternative sources of spare parts and defense equipment, but India persisted with Russian arms procurement post 1991 for several reasons. The biggest reason was path dependence of accumulated stock, platform familiarity by operators, training, and organization around acquisition flows. India, essentially, remains reliant on Russia to keep its military functioning, which makes a deliberate split, either political or on arms sales, near impossible without rendering India deeply vulnerable. Furthermore, India still considered Russian weapons cost-efficient, even though friendship prices evaporated in the post-Cold War period and, perhaps, because the full lifecycle costs, inclusive of servicing and maintenance, were not immediately apparent.⁹¹ Additionally, as India diversified sourcing from other Western suppliers like Israel, France, and later the United States, its bargaining power vis-à-vis Russia grew.⁹² Due to Moscow's economic need for foreign exchange through defense exports, Russia was more open to India's demand for licensed production or joint development on some technologically advanced systems, like cruise missiles, nuclear submarines, fighter aircraft, nuclear energy, and surface ships (including an aircraft carrier). India is unlikely to find another state as willing as Russia is to develop high-level collaboration on advanced strategic systems. This only strengthens India's resolve to continue the relationship, as it will likely bear fruit well into the future.

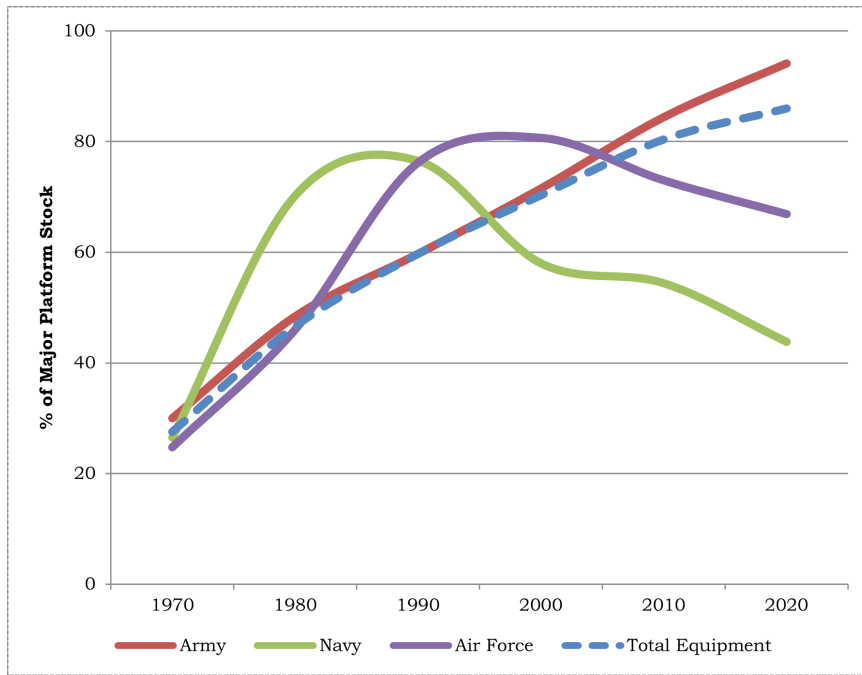
Missiles. The joint development of the BrahMos cruise missile system is considered the most substantive case of Indo-Russian defense collaboration. In 1998, India's Defense and Research Development Organization (DRDO) and Russia's NPO Mashinostroyeniya created joint venture BrahMos Aerospace to develop a supersonic cruise missile system. Russia developed the missile's engine and seeker, while India worked on the guidance control system, airframe, and on-board electronics.⁹³ For India, the advantage of joint development with Russia on BrahMos was access to technology related to canisterization of missiles, which enabled DRDO to indigenously develop it for India's Agni-I missile.⁹⁴ The degree of "joint" development should not be overstated, however, since the BrahMos propulsion technology, arguably the most sophisticated part of the missile, is based almost entirely on Russia's Yakhont SS-N-26 antiship cruise missile.⁹⁵

Naval Equipment. The Soviet Union loaned India one of its Charlie-class nuclear-powered submarines (SSN) for a period of three years between 1988 and 1991, the first time any country had ever done so for another.⁹⁶ New Delhi and Moscow built on this cooperation, with Russia leasing another nuclear-powered attack submarine, the K-152 *Nerpa*, to India for a period of 10 years in

2012, and a third SSN will be leased in 2025.⁹⁷ India also purchased Russian Talwar-class frigates, which came into service in 2003–04.⁹⁸ India purchased another three in 2013 and has contemplated purchasing more.⁹⁹ Russia also sold India an aircraft carrier, designated INS *Vikramaditya*, which, though marred by cost overruns and delays, was offered at a marginally concessionary rate to replace India's retiring British-origin carrier.¹⁰⁰ The most significant example of a collaborative project has been Russian assistance in the development of India's SSBN, the INS *Arihant*.¹⁰¹

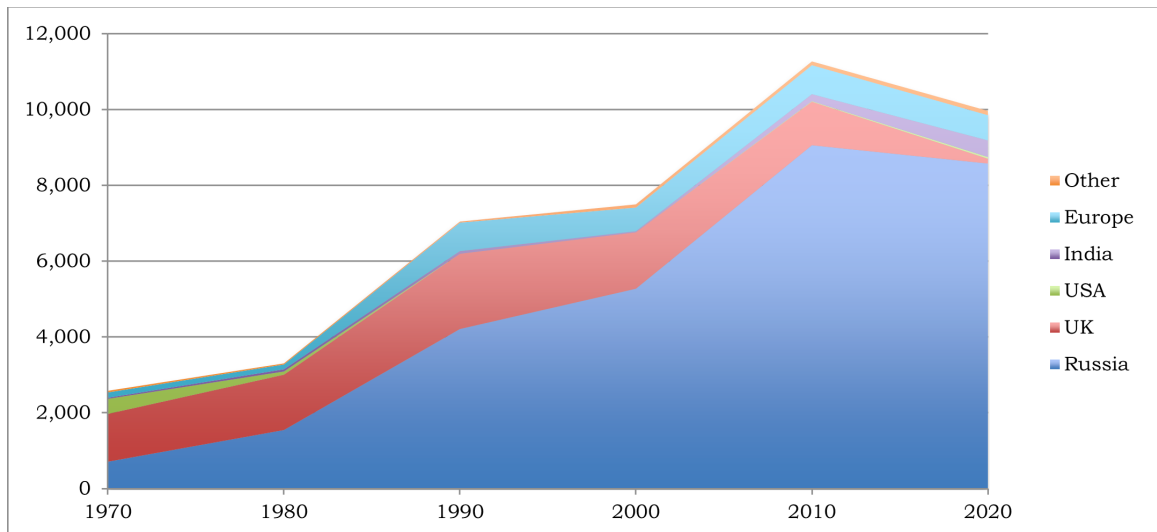
Fighter Aircraft. An agreement between New Delhi and Moscow for India's Hindustan Aeronautics Limited (HAL) to manufacture the Su-30MKI under a "deep license" production was seen as a significant development because India would be able to indigenously manufacture all the components of the multirole fighter aircraft, including the engine.¹⁰² Russia's Su-30MKI, with Israeli and French avionics, ultimately became the Indian Air Force's frontline aircraft.¹⁰³ Indian analysts routinely bemoan the fact that licensed production did not result in complete transfer of technology, but this may be more a function of the deficiencies within India's indigenous state-owned defense enterprises (defense public-sector undertakings).

When India and Russia began discussions on the fifth-generation fighter aircraft (FGFA) in the early 2000s, the Russians had already developed a prototype for it, the Su-57. New Delhi was concerned that India would not receive significant access to technology or know-how, since most of the design and development of the aircraft had already been completed.¹⁰⁴ Ultimately, a joint development agreement was finally signed between Russia's Sukhoi and India's HAL in 2007,¹⁰⁵ and Sukhoi's director announced that they would "share the funding, engineering, and intellectual property in a 50-50 proportion."¹⁰⁶ However, the project encountered stumbling blocks when Sukhoi balked at giving HAL a large work share due to India's lack of experience, and New Delhi worried India would not be able to reap indigenization benefits for its investment.¹⁰⁷ Delays and cost overruns on the Russian side also continued to plague the project. After 11 years of negotiations, India withdrew from joint development of the FGFA in 2018, but the Russians reoffered the agreement in 2019 under better relations and potentially better technology-transfer terms, which India has not ruled out.¹⁰⁸ Russia's consideration of sharing the source codes for a FGFA likely outstrips anything on offer from other partners.¹⁰⁹



(Source: *The Military Balance*, IISS)

Figure 2. Major Indian military equipment of Russian origin (% per decade)



(Source: *The Military Balance*, IISS)

Figure 3. Cumulative major Indian military equipment pieces (by national origin/decade)

Nuclear Energy Cooperation. Russia has been India's most important nuclear energy partner for the past few decades. Russia has completed construction on four nuclear reactors, with two more under construction and as many as six planned.¹¹⁰ Russian assistance to India's civilian nuclear program, in the form of enriched uranium fuel supply, became increasingly important after some Western partners, like the United States, ended cooperation after India's 1974 nuclear test. Russia continued construction on two nuclear reactors, even after India's 1998 nuclear tests and international pressure to end nuclear cooperation with India. Additionally, analysts assume that the India–Russia nuclear cooperation agreement, which is not public, “allows India to reprocess the spent fuel from Russian reactors” and, very likely, any other spent Russian fuel used in non-Russian-origin reactors.¹¹¹

Arms Procurement Frictions

Despite their deep arms relationship, there have been several points of friction between New Delhi and Moscow over these procurements. The first issue has been quality. Russian systems were never the highest quality but were considered optimal at comparable levels of Western quality, with 30–35-percent lower cost, robust performance, and simplicity of maintenance.¹¹² India encountered several problems, though, including substandard systems or contractual obligations not being met. For instance, in 2012, India's defense ministry reported that more than half the 872 MIGs procured from USSR/Russia had crashed, the source of the aircraft's “flying coffin” nickname.¹¹³ The recently procured Su-30MKI has also been plagued by engine-related issues and display systems problems that may have contributed to five aircraft crashes between 2012 and 2017.¹¹⁴ However, some contend the problem has to do with systems integration, because the DRDO has sought to experiment with “Frankenstein” platforms by adding in French and Israeli avionics onto a Russian fighter.¹¹⁵

In addition, when it comes to supply of spare parts, Indian officials have privately complained about delays, price revisions, cost overruns, and demands for advance payments or new or long-term contracts, some even designed to leverage India's dependence on Russia.¹¹⁶ However, this may begin to be redressed with a recent agreement that would allow India to manufacture spare parts and components domestically.¹¹⁷

Finally, even as Russian codevelopment and technology transfers are routinely heralded and are the standard by which all other arms agreements are implicitly evaluated against, India remains perennially dissatisfied with the limits of technology transfers and access.¹¹⁸ For instance, while the Soviet Union/Russia's lease of a nuclear submarine to India from 1988–1991 and 2012–present demonstrates a unique willingness to share technology, accompanying restrictions hampered

India's ability to train personnel and to learn from Soviet technology. During the first lease, Soviet personnel continued to man the SSN's reactor and refused to provide access to any Indian personnel.¹¹⁹ Further, the Soviets provided little technical data on the SSN.¹²⁰ Additionally, some Indian Ministry of Defence officials have, in hindsight, called the Su-30MKI program a "mistake," alleging that licensed production without technology transfer or access had not brought the expected benefit of advancing an indigenous capability to manufacture a fighter aircraft and move toward research-and-development self-reliance.¹²¹

Ultimately, a competitive marketplace has compelled Russia to grow more open to technology transfers; but Moscow—given its experience with Chinese replication or reverse engineering—will likely remain hesitant to allow technology transfers that eventually undercut Russia's own defense exports.¹²² Upon close review, Indian expectations appear somewhat unreasonable and the magnitude of Soviet/Russian support for India's arsenal appears unusually generous.

Russian Contributions to India's Strategic Deterrent

Russian support for Indian defense technology and indigenization—while never fully satiating India's desires—cannot be understated. In the 1970s, Soviet leader Leonid Brezhnev purportedly considered transferring nuclear weapons technology but was disabused of that after advisors recalled the missteps with China and Cuba.¹²³ But short of direct transfer, what is often unappreciated is Russia's enormous contribution to India's nuclear deterrent. While reports of Russian contributions to Indian submarine-launched, intermediate-range and intercontinental ballistic missile capabilities have been unconfirmed, there is a consensus that decades of Soviet and Russian support proved critical to the recent fielding of India's indigenous SSBN, the INS *Arihant*.¹²⁴ Dozens of Russian engineers and advisors were dispatched to support India's Department of Atomic Energy and DRDO and assist with designs, precision equipment, and reactor miniaturization technology to fit it aboard a submarine.¹²⁵ Ashok Parthasarathi, a former science and technology advisor to the Indian prime minister, writes that the *Arihant* "would have just been impossible to realise without the Soviet Union/Russia's massive allround consultancy."¹²⁶

Furthermore, Russian space cooperation robustly boosted India's newest breakthrough strategic developments—such as enhanced intelligence, surveillance, and reconnaissance (ISR) capabilities and improved navigational satellite systems.¹²⁷ This support dates back to the 1972 agreement the Soviets made to aid the Indian Space Research Organisation in the development of remote-sensing capabilities.¹²⁸ In 2004, Russian and Indian space agencies signed an agreement to partner on reestablishing and revitalizing the Russian Global

Navigational Satellite System (GLONASS) to avoid reliance on US GPS.¹²⁹ Under this initiative, India was given preferential access to GLONASS for precision signals for enhanced missile targeting.¹³⁰

In particular, what has shaped India's perception of Russian reliability is that even in the face of US pressure, Moscow has strived to fulfill Russia's commitments to India for strategic capability transfers. The United States successfully pressured Russian president Boris Yeltsin to terminate the lease of a nuclear submarine to India and the transfer of missile engine technology for an Indian space launch vehicle.¹³¹ Nevertheless, Russian scientists maneuvered around the Yeltsin government to provide the technology to India, and the nuclear submarine lease was resurrected in the early 2000s.¹³² After India's 1998 nuclear tests, Russia also continued to move forward on a deal to construct two light water 1,000MW nuclear reactors and may have continued to provide enrichment and uranium fuel for the submarine reactor.¹³³

In short, Russian arms sales, information sharing, collaboration, technology transfers, and hands-on technical guidance, often in the face of heavy US pressure, have made tremendous contributions to India's strategic deterrent. Despite frustrations over quality, spare parts, and costs, India continued to extract value from Moscow's arms technology, such that after the Cold War, even as India liberalized and warmed to the West, New Delhi expanded India's arsenal of Russian systems. These arms transfers proved essential not only in modernizing the Indian military but also advancing its strategic arsenal, ranging from fissile material production and reactor designs to delivery systems, and, ultimately, space and ISR assets for targeting. The support on these strategic systems, in particular, has also ensured Indian goodwill toward Russia and highlighted the special nature of the relationship. India will be unwilling to turn down this support if Russia continues to offer it, likely guaranteeing a future close-knit relationship.

Arms for Influence?

We now turn the puzzle on its head and consider why Russia transferred this level of military technology to India and what it received (or expected) in return. States sell arms technology not only for security and economic motives but also to achieve *influence*. Certainly in the case of the Soviet Union's arms transfers to India, the calculated altruism of Soviet "largesse," extended credit lines, and technology transfers appears to be driven by far more political and commercial motives.¹³⁴ Arms sales can enhance a seller's security by bolstering a partner's security, stabilizing a regional balance of power, and gaining access to valuable geography or intelligence facilities. Such sales can also accrue economic benefits, like commercial profit, employment, foreign exchange, or lowering the per-unit costs of

production. However, arms sales are also thought of as vehicles to generate influence and leverage in a target country—to both spark and/or nurture a relationship. Historically, these sales have been used to gain access to elites, to leverage their decision making, and even to shape strategic thinking.¹³⁵

This begs the causal direction question between arms transfers and strategic concepts: does strategy determine arms acquisition, or do arms shape and structure strategic preferences? Undoubtedly, there is some inevitable degree of endogeneity in this relationship. Still, we evaluate below whether New Delhi's relationship with the Soviet/Russian strategic establishment and induction of arms has shaped India's operational concepts in ways that might meaningfully endure and inform its strategic approach to New Delhi today. We investigate this question by first considering the theoretical mechanisms of influence, their presence or absence in the Soviet-Indian and Russia-Indian strategic relationships, and finally conducting plausibility probes in two "most likely" cases of India's SSBN program and its T-72 tank acquisition.

Influence Mechanisms

If arms relationships are expected to generate influence on the target states, influence avenues may take two principal forms: direct and indirect. Direct pathways form intentional efforts to shape the future direction of foreign strategic thought, military planning, and related force acquisitions in accordance with Russian interests. Success in this objective would be manifested by evidence of a target state visibly emulating Soviet/Russian doctrine, operational art, and tactical approaches.

There are three potential pathways for this direct form of influence to be exercised. The first route is through the organization of high-level political and military dialogues with the target state. The second pathway, building upon the first, is through the conduct of joint military exercises potentially abetted by colocation or joint basing. The third pathway is through military education and training programs.¹³⁶

The second approach that states can take to influence foreign strategic thought and planning is indirect in nature. Whereas the above direct pathways can actively shape foreign military planning, the effect of indirect influences is largely limited to constraining or enabling trends in indigenous strategic thought, planning, and force acquisition in the target state. The first of two principal avenues of indirect influence is ideational diffusion. This transmission mechanism operates through independent studies—and interpretations—by the target state of the military thought and practice of the would-be influencer state. To maximize the success of this pathway, states must cultivate an aura of cutting-edge sophistication in operational art and technology.¹³⁷ The second indirect avenue is through sales of

military technology to the target state, or technology codevelopment. These policies can lead to the target state's dependence upon the influencer state for upgrades, servicing, and maintenance.¹³⁸

Direct mechanisms. The existence of direct mechanisms of transmission were highly limited during the Soviet–Indian strategic relationship, with this condition continuing through today. While the Soviet Union, and then Russia, had trained more than 10,000 Indian service members as of 2004, this military education was only in terms of instruction on the operation of specific platforms and weapons to be sold to India.¹³⁹ Indians have not attended Soviet and Russian higher staff colleges, where more advanced doctrinal concepts are taught. For instance, while the US Central Intelligence Agency reported that Indian forces were represented at Russian training installations specifically designated for foreigners to study tank and ground warfare operations as well as surface-to-air missile (SAM) and antiaircraft artillery (AAA) deployment and maintenance, they were conspicuously absent from the prestigious academies, command schools, and general staff colleges.¹⁴⁰ Though some India sources contend no Soviet personnel enrolled in full Indian higher staff college curriculum programs as a rule, other US sources suggest the presence of Soviet Army (and possible intelligence) officers at India's Defence Services Staff College.¹⁴¹

Indian acquisition of Russian equipment often came with training of forces. One US military officer who attended India's command and staff college judged that roughly 50 percent of the Indian Navy students belonged to "the Russia school" because they operated Soviet/Russian equipment and had trained in Russia.¹⁴² However, as highlighted above, this training was much more tactical—in terms of basic technical operation of the platform—than strategic or even operational.¹⁴³ For instance, in October 2005, as New Delhi finalized the terms of lease for India's SSN from Russia, 200–300 Indian naval officers began technical training at a submarine training center at Sosnovy Bor, near St. Petersburg.¹⁴⁴

Furthermore, there is little evidence of any joint military exercises between India and the Soviet Union. India–Russia military exercises were relatively infrequent to nonexistent in the 1990s. However, as the United States began to initiate exercises with the Indian military, particularly the Navy, Russia gradually followed suit. These began in earnest when Russia conducted a naval-based Indra exercise with the Indians in 2003, and these eventually grew into bi- and tri-service exercises.¹⁴⁵ Furthermore, unlike other states, the Soviets did not have basing access or privileged port facilities in India.¹⁴⁶ Given the limits on high-level exchanges, exercises, basing, and training along with several other features of the relationship, it appears unlikely that any substantial Soviet influence was directly exerted to shape Indian strategy or foreign policy.¹⁴⁷

Indirect Mechanism. There is more evidence for indirect influence upon India, albeit not through India-centered Russian initiatives. Instead, we find that India has developed indigenous operational concepts with its own military experience and perceived lessons from crisis episodes as a primary point of influence. There is a felt need within New Delhi for India's operational art to be seen as cognizant of, and comparable to, similar themes within Soviet strategic planning, which is held by Indian experts to have especial refinement and prestige in global military history. Indian strategists utilize Soviet tactics and operational art to publicly legitimize new Indian indigenous operational concepts, *once these are finalized and announced*. However, this Soviet and Russian practice does not drive original Indian doctrinal conceptual development, with this role instead filled by the lessons of previous Indian conflicts.

This role of indirect influence is now further tested through two plausibility probes in Indian concepts and doctrine in subsurface warfare and ground forces "breakthrough" operations.

Influence over Subsurface Warfare?

Some scholars contend that "Soviet naval thinking also influenced India's strategy," which may stem from the Indian Navy's heavy reliance upon Soviet and Russian platforms, with an estimated 70 percent of the current fleet sourced from Moscow.¹⁴⁸ Further, Russian sales, technology, training, and guidance have technically supported India's strategic deterrent development. If technological capabilities determine strategy and doctrine as some contend, then it stands to reason that Indian doctrine may very well derive from its Russian platforms.¹⁴⁹ Though, at first glance this might appear to be the case, more indirect mechanisms have actually shaped India's doctrine.

In the naval domain, there are also some commonalities between the Soviet/contemporary Russian and contemporary Indian SSBN posturing choices. Moscow's SSBN force has long been organized around a bastion posturing model, in which the submarines stay relatively close to port or are even berthed, in peacetime, and only deployed or assigned more far-reaching patrols in crises.¹⁵⁰ India too appears to be adopting a bastion strategy with its first SSBN, INS *Arihant*, which was officially inducted into the Strategic Forces Command in November 2018, and a second boat, INS *Arighat*, which is currently undergoing more localized sea trials.¹⁵¹ The National Command Authority plans a total SSBN fleet size of at least five boats, and a second SSBN base is currently being built at Rambilli, Andhra Pradesh, on India's east coast, to complement its facility at Vishakapatnam, while a potential third "hardened submarine base" has also been under consideration for the Andaman & Nicobar Islands since 2002.¹⁵²

Despite the Russian loan of Akula-class nuclear-powered submarines to India and quiet assistance in developing the *Arihant*, it is unlikely that these direct interactions have led to Indian emulation of the Russian bastion model. The size of India's eventual SSBN force and number of bases implies that it will eventually move toward a continuous-at-sea-deterrent model. An Indian defense expert has noted that the current paucity of sufficient escort vessels is what mandates India's bastion model, suggesting that this will change as this capability gap is filled.¹⁵³ The commonality, then, between Russian and Indian modes of naval nuclear deterrence is more likely due to the technological novelty of the Indian SSBN force and supporting elements. This leaves the bastion model as India's only viable current option, as opposed to a permanent posture, like the one adopted by Moscow.

Further, while the Soviet and Russian navies have been organized around a submarine-heavy strategy of sea denial to defensively block adversary fleets from certain areas, the Indian Navy has long seen its naval strategy as one of blue-water sea control: an expeditionary fleet capable of establishing new control over contested domains.¹⁵⁴

Influence over Ground Warfare?

New Delhi's ground warfare doctrinal shifts, in conjunction with India's acquisition of the Soviet T-72 tank in the 1970s and 1980s, offer another useful case to explore potential indirect transmission mechanisms of Soviet/Russian strategic influence. Russia and India do share common dilemmas in designing the employment of ground forces. Both states face challenges of planning conventional ground operations against an adversary (NATO and Pakistan, respectively) that has comparatively less strategic depth and explicitly relies upon a first-use policy and battlefield nuclear weapons to compensate.¹⁵⁵

The real landmarks in New Delhi's doctrinal evolution included India's 1971 war, in which it successfully tested new rapid-maneuver operations, and its subsequent 1975–76 Expert Committee ground warfare doctrinal redesign.¹⁵⁶ Following the 1971 war, the Indian military objective was to field fast-moving armor, closely coordinated with airpower, which could either punch through or bypass adversary forces to capture key military-communication hubs in the enemy's interior, thus disrupting organizational cohesion and causing rapid collapse of the enemy lines. Unlike the more attritionist wars of the past, the Army and Prime Minister's Office now envisioned high-tempo maneuver warfare within a curtailed timeframe.¹⁵⁷

Each of the major Indian Army doctrinal reorderings since 1971—the Reorganised Army Plains Infantry Divisions and overarching Sundarji doctrine, the reorganization of some formations into new Integrated Battle Group models in

the 2004 Indian Army doctrine, and the more widespread reshaping of remaining Indian Army formations into Integrated Battle Groups as envisioned in the 2018 Indian Army doctrine—all carry some surface similarities to Soviet land-warfare strategic planning. The Soviet Operational Maneuver Group thinking of the late 1970s and early 1980s envisioned a similar reorganization of ground forces around highly maneuverable independent formations, operating just behind the initial breakthrough forces. However, India's rethinking of its operational art, as anchored in the 1971 experience and 1975–76 Expert Committee, ultimately predates that of the Soviet Union.¹⁵⁸ The references to Soviet—and US—practice among Indian military strategists and strategic analysts are largely by way of *post hoc* analogization. This is intended to persuade holdouts within their own community that these Indian concepts stand alongside those of the Soviet Union and the United States in their levels of sophistication and modernity.¹⁵⁹

The T-72 Tank Selection. In selecting India's next major battle tank model in the 1970s, the Indian choice of the T-72 was far from automatic, and New Delhi had several options available to it. India's indigenous Arjun tank efforts had borne no fruit, refitted older models (like Centurions or T-54s and T-55s) did not match the desired strategy, and other potential options (AMX-40 and Chieftain-800) were still only prototype blueprints that were unproven. Indian Army officials conducted “paper evaluations concerning the firepower and mobility characteristics” of each model.¹⁶⁰ The emphasis on these key attributes, as opposed to armor strength, illuminates how the Indian Army was implementing a preconceived indigenous warfighting model.

The T-72 appeared to Indian evaluators to be modern and proven, featuring active Soviet service for nearly 10 years by 1980, holding the most powerful gun (measured by cannon diameter) among the above contenders, and demonstrating “excellent mobility,” including a 60 km/hr top speed.¹⁶¹ The Indian Army began importing T-72s from 1979, although most of its fleet would be acquired over the period 1982–1986. Instead of emulating the Soviet order of battle assigning T-72s to the secondary follow-on role for rapid maneuver through adversary gaps, India chose to assign the breakthrough and follow-on missions to the T-72 and upgrade them to meet India's predetermined operational requirements more closely.¹⁶²

This stark difference in platform utilization highlights the absence of Soviet ground warfare doctrinal influence being directly or indirectly transmitted to India, through direct training or indirect arms sales. Therefore, the sole indirect mechanism of influence is that of India seeking subsequent analytic validation for operational concepts of indigenous Indian design from studying the practice of perceived cutting-edge global military powers.

In considering the range of influence of Soviet arms sales, it appears that economic motives have primacy. For all its generous terms of arms sales and technology transfers, the Soviets did not appear to gain special access to basing or intelligence facilities, nor create a bridgehead of political influence in Asia. Moscow has also not shaped the doctrinal concepts or strategic thinking of Indian officers, owing to insufficient institutional or social links that might have fostered the “epistemic communities” that diffuse policy ideas.¹⁶³ The indirect influence of the sale of certain weapons platforms on Indian doctrine appears marginal, post hoc, and arguably neither sufficient nor necessary. It remains possible any prospects for Soviet influence were counteracted by the Western military doctrines reflecting the Indian military’s British legacy.¹⁶⁴ Where the Soviets did succeed was in creating path dependence for Indian procurement—perhaps unwittingly—that has continued to pay dividends for contemporary Russian arms sales. A question for future research would be to examine whether Soviet motives were driven by such economic foresight or some theory of regional stability that required a significant boost for India.

Conclusion

In answer to the question we began with, this article argues that history, politics, and ideas all contributed to an enduring and deepening India–Russia partnership but that the material arms relationship has been the leading driver. That arms and technology transfers (specifically strategic technology) form the bedrock of the India–Russia relationship is not meant to dismiss these material ties but to underscore their strength and long-term durability.

First, the partnership’s historical origins in the Cold War and explicit tilt in 1971, during one of India’s most consequential crises, may have produced some reservoir of familiarity and goodwill that reified Russia–India cooperation after the dissolution of the USSR. Second, the geopolitical alignments of past and present have driven India and Russia together, despite some periodic friction. As in the past, both have mutually backed or acquiesced to each other’s aggressive actions in their contested, western borders or spheres of influence. Moreover, they both worry about China’s rise and regional assertiveness but prefer a more careful approach of economic engagement, hedging, and tethering China to themselves. Third, the relationship is undergirded by some significant overlap in ideas of a polycentric global order. Though they diverge on the rules-based order, which India defends and Russia assaults, the Indian strategy of multialignment is still compatible with Russia’s efforts to undermine said order. Furthermore, the recent illiberal turn of the Indian government, including hostility toward civil liberties,

counter-majoritarian institutions, and the free flow of information may presage something greater.¹⁶⁵

The lead driver undoubtedly is the Russia–India arms relationship, the depth of which is not fully appreciated in policy circles. Though American officials are hopeful that the inevitable turnover in India’s strategic personnel will help tilt New Delhi toward Washington, the relative stock of Russian-origin military materiel that exerts a powerful influence on policy will remain largely unchanged.¹⁶⁶ Despite some quibbles, India has been afforded access to advanced technologies at low or deferred prices and the opportunity to capture industrial production and indigenization benefits. No country transfers advanced technology or intellectual property for free, but the Soviets may have practiced “strategic altruism” toward India long before the United States did, offering more in this domain than most major power do for their treaty allies. In particular, Russian contributions to India’s nuclear deterrent rarely get the attention they deserve but may approach the special France–Israel nuclear relationship or even the US–UK relationship over nuclear technology that has run from 1958 to the present.¹⁶⁷

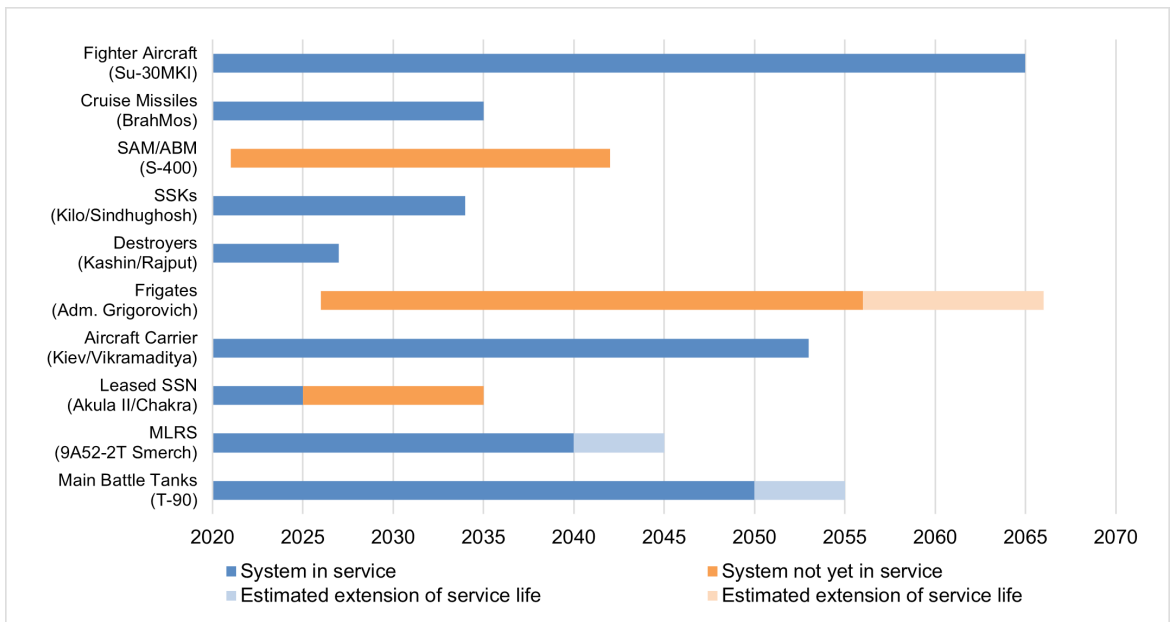


Figure 4. Estimated Service Life of India’s Major Russian Weapons Systems

“India depends on Russia and will continue to do so for *several decades* for its military hardware needs,” notes Dr. Arvind Gupta, who recently served as deputy National Security Advisor in the Modi-led Indian government.¹⁶⁸ Even if India had not recently signed 15 billion USD in defense procurements from Russia that likely lock it in to several decades of dependence for supplies and parts (see fig. 4),

New Delhi would still have strong incentives to lean toward Russia.¹⁶⁹ India's desire to access, codevelop, or lease the technology required to build its own systems still makes Russia an essential partner because of Moscow's *relatively* greater willingness to share the required sensitive technology and more relaxed standards for transfers.¹⁷⁰ By contrast, stringent US guidelines on end-use of systems, classified technology, copyright protections, and operational restrictions pose a significant obstacle to licensing and transfer of defense technology to India. This is especially true when New Delhi demands operational autonomy, seeks to refit purchased systems with materials from other foreign suppliers, and is judged to have unsatisfactory handling of intellectual property rights or classified and sensitive US technology.¹⁷¹

At the same time, we observe some limit to the influence of arms transfers. Even in the most likely cases, we do not find strong evidence of arms technology as a vector for transferring strategic concepts. Though this negative finding may encourage US policy makers who fear India's strategic theories have fallen under the sway of Russian thinking, it also speaks to how difficult it is to shape strategic thinking through arms transfers. The absence of Soviet strategic influence on India may foreshadow the insufficiency and potential limits of US arms transfers to India to shape interoperability and diffuse military strategy. ❀

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128. Thakur, "India and the Soviet Union," 831–32.; Jyotsna Bakshi, "Prime Minister's Moscow Visit," *Strategic Analysis* 29, no. 4 (2005), <https://idsa.in/>; and K.S. Jayaraman, "India to Launch Russian GLONASS Satellite," *Space News*, 27 March 2006, <https://spacenews.com/>.

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131. Yogesh Joshi, "Indo-Russian Defense Relationship Will Continue to Withstand Washington's Displeasure," *Center for the Advanced Study of India*, 1 July 2019, <https://casi.sas.upenn.edu/>; and Joshi, "India's Strategy in the China-Russia-USA Triangle."

132. Parthasarathy, "India, too, Has an All-Weather Friend."

133. Private correspondence.

134. Mastny, "The Soviet Union's Partnership with India," 71.

135. Andrew J. Pierre, *The Global Politics of Arms Sales* (Princeton, NJ: Princeton University Press, 1982), 14–27. These motives were reiterated to me by a former senior US defense official, December 2019.

136. The effort of military training and education was stepped up in the Third World during the 1970s to help steer and control the transition to "scientific socialism." For example, by 1984, the USSR had extensive military training programs to wield influence and shape military operations and strategy in developing countries. This involved 19,000 military personnel stationed in these states (not including those of the Warsaw Pact) as advisors, technicians, and instructors. Moreover, more than 4,000 trainees from the Middle East, Africa, Latin America, and South Asia were hosted at Soviet training facilities and military academies. See: Alexander R. Alexiey, *The New Soviet Strategy in the Third World* (Santa Monica, CA: RAND, 1983); and CIA, *The Soviet Military Advisory and Training Program for the Third World*, April 1984, <https://www.cia.gov/>.

137. See: Michael J. Eisenstadt and Kenneth M. Pollack, "Armies of Snow and Armies of Sand: The Impact of Soviet Military Doctrine on Arab Militaries," in *The Diffusion of Military Technology and Ideas*, ed. Emily O. Goldman and Leslie C. Eliason (Stanford, CA: Stanford University Press, 2003), 68.

138. The Soviets leveraged "massive arms transfers" for the purpose of "socioeconomic and political restructuring of client Third World societies," but often supplied only limited quantities of spare parts and ammunition to make the client dependent, particularly in crisis situations. See: Alexiey, *The New Soviet Strategy in the Third World*, v, 19–20.

139. Rouben Azizian, "Russia-India Relations: Stability Amidst Strategic Uncertainty," *Asia Pacific Center for Security Studies*, Honolulu, Hawaii, October 2004, 1–6, <https://apps.dtic.mil/>.

140. CIA, *Soviet Military Advisory and Training Program*, 16–18.

141. Author interview with retired Indian admiral, 19 October 2018; Ramesh Thakur, "The Impact of the Soviet Collapse on Military Relations with India," *Europe-Asia Studies* 45, no. 5 (1993); and Azizian, "Russia-India Relations," 1–6. For evidence of Soviet attendance at the staff college, see: David O. Smith, *The Wellington Experience* (Washington, DC: The Stimson Center,

2020), 75, 79, 191. Although it is acknowledged, the Soviets preferred not to send their students to the DSSC.

142. Smith, *The Wellington Experience*, 79, 84.

143. Interview with a retired Indian admiral, 19 October 2018.

144. John Pike, "Project 971 Shuka-B Akula Class," *Global Security*, 3 May 2019, <https://www.globalsecurity.org/>.

145. Bakshi, "India-Russia Defence Co-operation," 461.

146. Chari, "Indo-Soviet Military Cooperation: A Review," 242–43. There is an isolated example of Ayni Air Base in Tajikistan. This is a Russian air base, which India "started operating . . . in 2002 with Russian acquiescence." However, the base reportedly does not host Russian or Indian Air Force combat squadrons, and instead its "main function is to transport India's relief and reconstruction supplies into Afghanistan." See: Michaël Tanchum, "China's Tajikistan Military Base Eclipses India's Central Asian Ambitions," *East Asia Forum*, 23 March 2019, <https://www.eastasiaforum.org/>.

147. Chari, "Indo-Soviet Military Cooperation." 243. In fact, one analyst quipped that "the Indian act of taking Soviet support while giving little tangible in return is one of the more outstanding feats of the contemporary international scene." See: Thomas P. Thornton, "The Security of South Asia: Analysis and Speculation," in *The Security of South Asia: American and Asian Perspectives*, ed. Stephen P. Cohen (Urbana: University of Illinois Press, 1987), 21.

148. Joshi, "Samudra," 486; Ashley O'Keefe, "Sea Control 127 – Dr. Tom Fedyszyn on Russian Navy Ops, Acquisition and Doctrine," *Center for International Maritime Security*, 1 February 2017, <http://cimsec.org/>.

149. See: Kier Lieber, *War and the Engineers: The Primacy of Politics over Technology* (Ithaca, NY: Cornell University Press, 2005).

150. Barry R. Posen, "U.S. Maritime Strategy: A Dangerous Game," *Bulletin of the Atomic Scientists* 43, no. 7 (1987), 24. For a more recent analysis, see: Hans M. Kristensen, "Russian SSBN Fleet: Modernizing but not Sailing Much," *Federation of American Scientists*, 3 May 2013, <https://fas.org/>.

151. Yogesh Joshi, "Angles and Dangles: Arihant and the Dilemma of India's Undersea Nuclear Weapons," *War on the Rocks*, 14 January 2019, <https://warontherocks.com/>; and Sandeep Unnithan, "INS Arihant Returned Yesterday from 20-day Deterrent Patrol," *India Today*, 5 November 2018, <https://www.indiatoday.in/>.

152. Saurav Jha, "India's Undersea Deterrent," *The Diplomat*, 30 March 2016, <https://thediplomat.com/>.

153. Jha, "India's Undersea Deterrent."

154. On naval strategy, see: Yogesh Joshi, "Sailing through the Cold War: Indian Navy's Quest for a Submarine Arm, 1947-67," *India Review* 17, no. 5 (2018): 1–29. As revealed through writings of Indian naval officers in *USI Journal* in the 1940s and 1950s through to the content of Indian maritime doctrines today, see: Capt. Sanjay Sachdeva, "Sea Control by the Indian Navy: A Pragmatic Assessment," *Naval War College Journal* (2014), <https://www.indiannavy.nic.in/>; and Joshi, "Sailing through the Cold War," 13, 21.

155. For background on the similarities and differences between NATO–Warsaw Pact and India–Pakistan strategic dynamics, see: David O. Smith, "The US Experience with Tactical Nuclear Weapons: Lessons for South Asia," Stimson Center, 4 March 2013, <https://www.stimson.org/>.

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choosing paths that took Indian forces to Pakistani force concentrations. Indian forces were to advance as rapidly as possible toward these areas and then defend them, which would produce a *fait accompli* to the physically existing, but organizationally broken and scattered, Pakistani forces still in the region. See: Raghavan, 1971, 238. For background on the primary doctrinal influence of the 1971 war and 1975-76 Expert Committee, see: K.V. Krishna Rao, *In the Service of the Nation: Reminiscences* (New Delhi: Viking, 2001), 142-58; Ahmed, *India's Limited War Doctrine*, 19-21; and Christopher Clary, "Personalities, Organizations, and Doctrine in the Indian Military," *India Review* 17, no. 1 (2018), 110-12.

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