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In late April 1999, Pakistani forces belonging to the Northern Light Infantry (NLI) made a series of incursions across the Line of Control (LoC), the de facto international border between Pakistani and Indian-controlled parts of the disputed state of Jammu and Kashmir. Initially, Indian security forces did not detect these forays. In fact, it was a shepherd who was grazing his flock who noticed the presence of these Pakistani intruders and alerted the Indian military, who dispatched a patrol to ascertain the scope of the incursions. This patrol disappeared and, presumably, its members were killed. Only in the wake of this incident did India's security forces realize the extent to which the NLI forces had managed to ensconce themselves along a series of strategic salients across the LoC. In early May, the Indian Army, eventually with the assistance of Indian Air Force (IAF) helicopters, sought to dislodge the Pakistani intruders; the IAF also started reconnaissance flights over the areas which the NLI had occupied. This incident marked the beginning of the Kargil War of 1999, a three-month conflict that saw the first use of airpower on India's part against Pakistan in nearly thirty years.[1]

Two-and-a-half decades later, on April 22, 2025, five terrorists belonging to The Resistance Front (TRF), widely believed to be an offshoot of the Pakistan-based terrorist organization, the Lashkar-e-Taiba (LeT), attacked and

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killed twenty-six individuals—the vast majority of whom were Indian and foreign tourists—in Pahalgam, a resort adjacent to Srinagar, the capital of Indian-controlled Kashmir. In its wake, the government of Prime Minister Narendra Modi vowed to track down the perpetrators of the massacre.[2] On May 9, New Delhi launched "Operation Sindoor." This military operation included missile strikes into Pakistan-controlled Kashmir as well as Pakistan itself. Furthermore, for the first time since the Kargil War of 1999, India resorted to the use of airpower against Pakistan. Crucially, unlike in the Kargil War, when India's political leadership placed explicit constraints on the use of airpower, in the wake of the Pahalgam attack it granted the IAF leeway to attack targets across the LoC as well as within Pakistan.[3]

In 2025, the IAF was granted leeway to attack targets across the LoC and in Pakistan

In this article, we will compare and analyze the performance of the IAF in the Kargil and Pahalgam conflicts. In the first case, the IAF, after some initial stumbles, acquitted itself admirably, inflicting significant costs on the NLI forces and thereby creating conducive conditions for ferocious, and ultimately successful, ground assaults on the part of Indian Army units. Indeed, despite facing significant politically imposed operational constraints, according to various external observers, the IAF acquitted itself well in the Kargil War. In the Pahalgam case, however, the IAF's performance, despite greater leeway in its operational remit, appeared to be lackluster at best. Though the precise estimates of the aircraft it lost vary, it is widely accepted that it lost at least three and possibly four combat aircraft in the conflict. What explains the markedly different outcomes of the use of airpower in these two conflicts? To answer this question, we begin with a discussion of airpower during the Kargil War in the first section and a discussion of airpower after Pahalgam in the second. We then compare the use of airpower and the outcomes of each conflict in the third section. We conclude by drawing broader implications for future India-Pakistan as well as US-China crises.

In addition to the tactical lessons that can be drawn from the use of airpower, India likely learned two strategic lessons from the 2025 Pahalgam conflict. First, New Delhi learned that they must escalate to strikes against military targets at the onset of hostilities. Second, they learned what air defense capabilities Pakistan now possesses. These lessons suggest that India will likely act to suppress enemy air defenses early in future conflicts. Attacks on air defense and other military targets inside undisputed Pakistani territory will lead to greater Pakistani military casualties, increase the risk of civilian fatalities, and may erode nuclear early warning capabilities. These risks are something to watch in and outside the region.

Airpower in the Kargil War

Prior to the Kargil War, India had used airpower quite effectively in two wars with Pakistan: in 1965, and especially in 1971. In the 1965 war, Pakistan actually had a significant qualitative edge over India as it possessed a substantial number of US-supplied F-86 and F-104 combat aircraft. India, on the other hand, was mostly reliant on WWII-vintage British Canberra bombers, the indigenously manufactured HF-24, and the subsonic British Folland Gnat, making its success particularly surprising. (India also used the French-built Mystères and British Vampires.[4]) In 1971, India, mostly relying on Soviet-supplied MiG-21Fs, quickly achieved air superiority over the skies of East Pakistan.[5] This war led to the break-up of Pakistan and the creation of Bangladesh.

In May 1998, both India and Pakistan had conducted a series of nuclear tests, thereby ending years of ambiguity about their nuclear status. In the wake of the tests, both countries came under considerable pressure from the United States and other key members of the global community to abandon their nuclear weapons programs. The United States focused the bulk of its efforts on India because it believed that without India's willingness to eschew its nuclear arsenal, little progress could be made with its archrival, Pakistan.[6]

Simultaneously, India, in an attempt to assuage both American and global misgivings about the nascent nuclear rivalry on the subcontinent, decided to reach out to Pakistan in an attempt to reduce bilateral tensions. To that end, Prime Minister Atal Behari Vajpayee inaugurated a new bus service linking the cities of Amritsar and Lahore in Punjab and used the occasion of the launch to visit Pakistan. At a historic site in Lahore, the Minar-e-Pakistan, he affirmed India's commitment to the territorial integrity of Pakistan. On the same trip, the two sides reached a bilateral agreement known as the Lahore Declaration, which included a raft of confidence-building measures.[7]

In the aftermath of this historic visit, convinced that New Delhi and Islamabad were opening a new chapter in their ties, Indian military and intelligence services decided to lower their alertness along the India-Pakistan border, as well as the Line of Control in Kashmir.[8] Among other matters, the routine air surveillance of the India-Pakistan border using reconnaissance aircraft was scaled back. These decisions proved to be disastrous for India's national security.

The exact Pakistani motivations for launching the Kargil war remain murky. However, it can be surmised based on inference and attribution that General Pervez Musharraf, the chief of staff of the Pakistan Army, was none too happy with the start of a possible rapprochement between India and Pakistan. Additionally, the insurgency in Indian-controlled Kashmir had started to wane, and an incursion into the region could help reignite it.[9] The Pakistan Army also hoped to interdict India's only line of communication to its troops on the

Siachen Glacier by seizing portions of National Highway 1-A that runs from Srinagar to Leh.[10]

To that end, General Musharraf utilized units of the Northern Light Infantry, a military unit under the command of the Pakistan Army stationed in Pakistan-controlled Kashmir, to make a series of incursions across the Line of Control into Indian-administered Kashmir. Once alerted by the Indian shepherds, the Indian Army sent out two patrols into the area. Both ran into Pakistani ambushes. One disappeared and the other retreated after taking substantial casualties. Initially, the Indian military believed that these intrusions were related to Pakistan's attempts at infiltration to support local insurgents. Only after an Indian reconnaissance aircraft flew over the Mashkoh sector and was fired upon did they grasp the full scope of the intrusions.[11] Around May 23, 1999, the Indian Army assessed that as many as 600 to 800 Pakistani infiltrators had occupied strategic salients in the Dras, Kargil, and Batalik sectors along the LoC.[12]

Initially, the Indian Army believed that it could dislodge the intruders with the aid of helicopter gunships from the IAF after having failed in their initial attempts to recapture several of the occupied positions. Accordingly, on May 11, they requested the IAF to provide air support using helicopters to help the embattled troops.[13] However, then-Air Chief Marshal A.Y. Tipnis later stated that he was initially disinclined to deploy IAF helicopters due to the uncertainty associated with the precise locations of the enemy forces and the risks of using attack helicopters at such high altitudes. Instead, he suggested that he seek political authority to engage targets across the LoC using combat aircraft from an advanced airbase near Kargil. To that end, he had apparently requested the requisite authorization as early as May 12, but did not receive it until May 25. The delay, it seems, stemmed from the reluctance of the Indian political leadership to pursue air operations against a nuclear-armed adversary. When it did provide the requisite clearance, New Delhi prohibited air attacks beyond the LoC for fear of inadvertent escalation and the uncertainty surrounding Pakistan's nuclear use doctrine. This restriction severely hampered the IAF's efforts to disrupt the NLI's lines of communication.[14]

In 1999, India was initially reluctant to pursue air operations against a nuclear-armed adversary

Once the IAF had received the authorization to pursue combat operations, it commenced its attacks on May 26 under the aegis of Operation Safed Sagar ("White Ocean"). It started its attacks using Russian-made Mi-17 helicopters along with a complement of MiG-21s, MiG-23s, and MiG-27s. The initial sorties faced punishing ground fire from Pakistani infantry who were embedded

in rocky outcrops and armed with anti-aircraft guns as well as shoulder-fired missiles. Faced with this stiff resistance, the IAF changed its tactics. Instead of carrying out ground attacks, it switched to an information-gathering mode at higher altitudes which would subsequently aid both air attacks as well as infantry assaults.[15]

On May 28, after two combat aircraft and a helicopter had been shot down, the IAF briefly halted its operations. However, it soon resumed its operations using M-17 helicopters to attack a major target at Tololing. Soon, the IAF concluded that the helicopter gunships were much too vulnerable to ground fire during daytime because of the noise level in the valleys and the presence of surface-to-air missiles and air defense guns. Accordingly, a senior air force officer with extensive experience flying helicopter gunships was asked to assess the effectiveness of the helicopter offensive operations. He recommended that helicopter-borne strikes be only carried out at dusk, dawn, or at night. The IAF also made another important tactical change in its operations: it abandoned all low-level attacks and resorted to medium-level attacks where they could stay out of the range of the NLI's American Stinger missiles. Furthermore, the IAF realized that the conventional munitions they were using had delayed fuses and were ineffective against the bunkers of the enemy embedded in rocky terrain. Accordingly, they switched to instantaneous impact fuses. They also deployed French Mirage-2000 combat aircraft with 1,000-pound bombs equipped with kits that converted them into precision munitions.[16] This switch in tactics proved to be highly effective as the Indian Army also stepped up its ground operations.

The use of the Mirage-2000 aircraft, which could deliver laser-guided munitions, turned the tide of the war. The IAF successfully provided close air support and were crucial in destroying two critical Pakistani supply sites in Batalik, a military base north of Kargil along the LoC, and another location near Dras.[17] By early July, the IAF had carried out as many as 580 strike missions, 460 air defense missions including combat air patrols, and about 160 reconnaissance sorties.[18] Pakistani forces were reeling from the combined Indian infantry and air attacks. Fearing an imminent battlefield defeat, Prime Minister Nawaz Sharif flew to Washington, DC on July 3 and met with President Clinton at Blair House on July 4. Much to Sharif's surprise, Clinton made it abundantly clear that he saw Pakistan as the aggressor.[19] Faced with this blunt American response, Sharif had little or no choice but to terminate military operations in Kashmir.

The IAF had to overcome several obstacles before it could help the Indian Army prevail in the Kargil War. The first was organizational. Coordination with the Indian Army proved difficult as neither of the two branches had had much experience in carrying out joint operations. The second was political: it

had to operate within the constraints that the political leadership had firmly delineated; specifically, it had been prohibited from attacking targets within Pakistan-controlled Kashmir. Third, it had to adapt to the atmospheric conditions that prevailed at high altitudes and against an enemy that had ensconced itself in mountain redoubts. Fourth and finally, it had to contend with the highly lethal missile capabilities that the NLI possessed. Nevertheless, it eventually acquitted itself well in aiding the Indian Army to bring the war to a successful close.

The IAF was quick to learn from initial missteps and had time to make corrections in Kargil

We argue that the use of airpower in the Kargil War proved to be successful in considerable part because of the Indian political leadership, and especially the senior leadership of both the Indian Army and the IAF who were quick to learn from their initial missteps and set aside interservice rivalries. Furthermore, the duration of the conflict, which lasted for almost three months, enabled the military authorities to learn from their preliminary errors and make appropriate course corrections. They were able to do so despite facing significant political constraints on the use of airpower.

Airpower After the Pahalgam Attack

India's 2025 strikes against Pakistan were a reaction to a terrorist attack on April 22, when members of The Resistance Front (TRF), also called Kashmir Resistance, attacked tourists near the town of Pahalgam in the Indian-administered portion of the state of Jammu and Kashmir, killing twenty-six people.[20] The attack was the deadliest terrorist assault against civilians since the November 26 terrorist attacks in Mumbai in 2008.[21] The TRF is an offshoot of Lashkar-e-Taiba (LeT), the group responsible for these 11/26 attacks.[22] The LeT is based in Pakistan and has ties to elements of the Pakistani military and intelligence services.[23] The terrorists separated men from women and children and targeted Hindu men, asking tourists to recite verses from the Quran and executing those who could not.[24]

India's diplomatic response began the following day, prompting responses in kind from Pakistan. India closed the only open land crossing along their shared international border, evicted defense advisors from the Pakistani High Commission in New Delhi, and reduced staffing levels at their High Commission in Islamabad.[25] India also suspended the Indus Waters Treaty, which India and Pakistan signed in 1960 to share the waters of the Indus River, a step that it had considered but never taken in the past.[26] Pakistan responded by closing its

airspace to flights of Indian origin, halting trade with India, suspending visas for many Indians, and holding multiple bilateral agreements in abeyance.[27] Pakistan also engaged in military signaling, testing assets procured from China including the PL-15 air-to-air missile,[28] which has a reported range of 124 miles and has better resistance to electronic warfare (EW) countermeasures than earlier Chinese models.[29]

India began its military response in the early hours of May 7, launching Operation Sindoor. Indian decision-making is both deliberate and occasionally slothful, contributing to the fifteen-day response time. The IAF struck sites associated with the LeT, as well as another terrorist organization, Jaish-e-Mohammed (JeM), in both Pakistan-administered Kashmir and undisputed Pakistani territory.[30] India initially struck nine targets: five in Pakistan-administered Kashmir, two near the LoC, and two deeper inside Pakistan.[31] Airpower played a critical role in this first volley against Pakistan-based targets. The IAF conducted the strikes deeper in Pakistani territory, hitting targets in Muridke and Bahawalpur. The IAF used French-produced SCALP-EG and Hammer glide bombs, as well as the Russo-Indian produced BrahMos missiles during these strikes.[32] More than likely, India used French-made Mirage 2000 or the Dassault Rafale jets to launch SCALP-EGs, while Brahmos missiles were probably launched from the Sukhoi SU-30MKIs.[33] The Indian Army conducted strikes against the other targets using artillery barrages.[34]

Following India's initial strikes, Pakistan launched a series of retaliatory strikes against Indian military targets during the nights of May 7, 8, and 9, to which India responded with drone strikes against Pakistani air defenses.[35] Pakistani sources claimed over 125 Indian and Pakistani aircraft engaged in the fighting, although that number remains unconfirmed.[36] Pakistan's response included the use of Chinese-produced PL-15 missiles fired from J-10 jets, marking the first use of the missile in combat.[37] Ground-based anti-air systems, radars, and electronic warfare capabilities from both countries were also active throughout the operation. Among the unmanned systems used by both sides were Israeli-produced Harpy and Harop drones.[38] India successfully destroyed an air defense radar in Lahore as part of these strikes. Violence escalated on the night of May 9, including a second round of Indian air strikes. While the IAF initially targeted terrorist infrastructure, the May 9 strikes targeted Pakistani military installations. India struck at least six Pakistani airbases, primarily using BrahMos missiles fired from Su-30MKI jets.[39]

Evidence suggests the conflict was one of the largest air engagements in regional history, even if concrete, verifiable numbers of Pakistani and Indian aircraft used remain unavailable.[40] Indian strikes on May 9 were also the deepest strikes into Pakistani territory since the 1971 India-Pakistan War.[41] Nevertheless, both the IAF and Pakistan Air Force (PAF) demonstrated significant

geographic restraint. Neither crossed into the other's airspace, remaining on their respective sides of the LoC during the conflict.[42]

The performance of Indian and Pakistani aircraft, anti-air, and electronic warfare capabilities has drawn considerable external attention during and after the conflict.[43] Both India and Pakistan claimed significant tactical successes with limited losses. Questions remain regarding specific losses, their causes, and the timing of the losses. Pakistan claimed that they shot down six of India's aircraft, later asserting the aircraft included at least three Rafales,[44] India's most advanced combat aircraft and a generation 4.5 fighter.[45] This number is likely false. India likely lost at least four aircraft, and a fifth is possible.[46] India confirmed the loss of at least three jets without specifying the reason or aircraft type. Multiple independent open-source analyses suggest at least four Indian aircraft were downed.[47] While some ambiguity about the losses remains, a *Washington Post* open-source analysis suggests the loss of at least one Rafale, and additional sources agree with this assessment.[48]

In 2025 the IAF struck deep into Pakistani territory but remained on its side of the LoC

At least one of the other downed aircraft appears to be a Russian-made plane, likely a MiG-29.[49] The PAF is likely responsible for some of the downings, as air-launched PL-15 debris was evident at multiple sites within India.[50] Pakistan can fit the PL-15 on either its JF-17 Block III or J-10C fighters, both of which are at least partially of Chinese origin. The JF-17 Block III, which China and Pakistan co-produced, is a fighter theoretically comparable to the F-15 or F-16, although its performance in combat remains unverified.[51] The J-10C is a China-produced generation 4.5 multi-role fighter with advanced electronic warfare capabilities.[52] Pakistan likely used Chinese-produced J-10 jets to record any kills with the PL-15.[53] Additionally, HQ-9 surface-to-air missiles may have been responsible for some Indian losses.[54] Like the PL-15, the HQ-9 is of Chinese origin. Pakistan also likely lost aircraft.[55] Indian Chief of the Air Staff AP Singh claimed the IAF shot down six Pakistani aircraft, including five fighters and one larger plane using the Russian-made S-400 air defense system.[56] Marshall Singh made these comments ahead of an announcement that Vladimir Putin was about to visit India.[57] Pakistan denied the claims.[58] It should be noted that the IAF is larger than the PAF, maintaining a fleet of 616 jets to Pakistan's 387. India's combat aircraft include the Russian-produced Sukhoi Su-30MKI and Mikoyan MiG-29 fighters, as well as the French-produced Rafale and Mirage 2000 fighters. India used MiG-29s and Mirage 2000s during the Kargil War and ordered Su-30MKIs shortly after.

Additionally, the skillful integration of electronic warfare assets on the part of both India and Pakistan into air and surface capabilities likely contributed to their tactical successes throughout the conflict. India's electronic warfare assets include the indigenously produced Samyukta and Himashakti systems, as well as EW capabilities integrated into its aircraft, such as the French-produced Spectra EW suite that its Rafale aircraft used.[59] Pakistan, which is largely dependent on Chinese-produced EW capabilities, relied on ground-mobile systems for long-range jamming and J-10 jets integrated with EW and counter-EW capabilities.[60] Deployments of Indian and Pakistani systems and the jamming of GPS were reported in the days leading up to Operation Sindoor.[61] The specific success rate of these systems during the conflict remains unverified, but both Pakistan and India made extensive use of EW, and each has claimed plausible successes: India claims that EW measures limited the effectiveness of Pakistani air defenses; Pakistan claims that the J-10's EW capabilities contributed to downing a Rafale.[62]

The loss of multiple Indian jets, the likely downing of a Rafale, and the possible loss of other high-performance aircraft have received significant media attention beyond the region. These losses present significant tactical defeats. Indian Chief of Defense Staff (CDS) General Anil Chauhan acknowledged these setbacks on the sidelines of the Shangri-La Dialogue in Singapore and stated that tactics were refined after May 7 to strike targets deeper within Pakistan with a lower risk to jets. However, these tactical defeats appear to be overshadowing a larger operational success for India.[63] Damage to Pakistani military installations appears to be more significant than the costs that Indian military installations incurred. India degraded Pakistani air defenses—perhaps significantly—while simultaneously defeating Pakistani missile and drone strikes with their own S-400 air defenses.[64]

India's 2025 tactical defeats appear to be overshadowing a larger operational success

It remains too early to say if these operational successes will translate into long-term strategic gains, as we do not yet know their ultimate impact on Pakistan-sponsored terrorist violence in Kashmir, including the ability and willingness of groups like the LeT, the JeM, or the TRF to conduct terrorist attacks against India. Furthermore, the conflict showcased Indian and Pakistani vulnerabilities.[65] Indian jets were susceptible to Chinese-produced Pakistani capabilities and India's EW doctrine and capabilities likely have significant shortfalls. Pakistan's airbases and air defenses appear vulnerable to Indian kinetic and electromagnetic attacks, and Pakistan was largely unable to suppress Indian air defenses or cause significant physical damage with their drone attacks. How both countries adjust their capabilities, doctrines, and training in the wake of the conflict will have significant ramifications for future crises in the region.

Comparing Kargil and Pahalgam

The use of airpower in the 2025 conflict between India and Pakistan following the Pahalgam massacre exhibited several similarities with the use of airpower during the Kargil War, as well as some critical differences. In both conflicts, Pakistan shot down Indian air assets early in the conflict. In both cases, New Delhi briefly paused its manned air operations and made suitable adjustments in its tactics. In both 1999 and 2025, Pakistan was unable to down additional Indian aircraft following these tactical adjustments. In both conflicts, the IAF operated under significant political limitations as New Delhi hoped to achieve limited strategic ends without risking the possibility of significant escalation.

Despite these similarities, the two conflicts also exhibited critical differences, including the role of airpower. While in Kargil airpower was an important—but ultimately peripheral—component focused on supplementing and supporting ground forces, air strikes were a central component of India's operations against Pakistan in 2025. Additionally, in 2025 the PAF fought back, whereas it had not in 1999. Furthermore, in 2025, both India and Pakistan had more technologically advanced air forces. In the quarter century following Kargil, India purchased high-performance aircraft from a range of foreign sources, acquired advanced unmanned systems from Israel, and developed indigenous electronic warfare systems to support air and anti-air operations. Meanwhile, Pakistan began purchasing air and anti-air capabilities from China, including fighter jets, air-to-air missiles, surface-to-air missiles, and electronic warfare capabilities. Finally, while India suffered losses in both conflicts, those in 2025 were more significant. The number of aircraft lost was greater than in 1999, despite the conflict lasting a matter of days instead of months, and the aircraft that Pakistan shot down in 2025 outclassed those downed during the Kargil War.

In both conflicts, India's losses appear to have occurred while Indian pilots were operating under significant political limitations. In 1999, India prohibited air attacks beyond the LoC. In 2025, Indian air assets were not allowed to target Pakistani military installations—including air defenses—during the first wave of air strikes on May 7. Some sources even suggest that the IAF did not arm Rafales with long-range air-to-air missiles.[66] These limitations rendered them vulnerable to Pakistan's air and anti-air capabilities. Indian CDS General Anil Chauhan stated that India refined its tactics over the next forty-eight hours, resulting in a resumption of air strikes against targets deeper into Pakistan without losses. This timing coincides with India's use of drones and ground-launched missiles to target Pakistan's air defenses, consistent with the comments from Captain Shiv Kumar, India's Defense Attache in Jakarta.[67] Given the roughly four-day duration of the conflict and its resolution the day after India's renewed airstrikes, it is difficult to gauge if India's tactical shifts solved their

vulnerabilities, or if a subsequent Pakistani recalibration would have resulted in further Indian losses.

This raises a key question: why did India incur higher losses in the beginning of the 2025 conflict, despite operating under similar limitations in 1999? The answer lies in Pakistan's use of airpower for counterair operations and the qualitative expansion of Pakistani surface-based anti-air capabilities. Specifically, we argue that Pakistan's acquisition of Chinese equipment was a critical factor in its ability to score tactical victories over the IAF on May 7, 2025. India operated under constraints like those imposed in previous operations. However, the improvement in Pakistani air and anti-air capabilities allowed them to respond, making Indian aircraft more vulnerable to counterair operations than they were in 1999.

Pakistan's acquisition of Chinese equipment was a critical factor in its 2025 tactical victories

Pakistan's acquisition of advanced Chinese capabilities allowed it to qualitatively match the IAF, as both the J-10C and Rafale are generation 4.5 fighters. Additionally, Chinese aircraft are not subject to the significant restrictions placed on F-16s by the end-user agreements between Pakistan and the United States.[68] China has also helped Pakistan make its surface-based anti-air capabilities more robust. While Pakistani soldiers were able to strike low-flying Indian aircraft with portable surface-to-air missiles, the Chinese-produced HQ-9 could strike targets at an altitude as high as 30 km above the system.[69]

These capabilities may or may not grant Pakistan a degree of qualitative superiority over India's air force. Regardless, they allowed Pakistan to shoot down multiple Indian aircraft, including advanced generation 4.5 aircraft, during the initial Indian air strikes, showing that even advanced Western-produced aircraft were vulnerable to Chinese capabilities. At the very least, robust suppression of enemy air defense capabilities was necessary to ensure India's Rafales and other advanced aircraft could strike targets in Pakistan. Such operations could pose risks for crisis stability, as air defense radars may also be used for nuclear early warning.

In the case of India and Pakistan, further rounds of escalation may have become more prone to miscalculation had Pakistan continued to lose strategic air defense radars. These risks also exist beyond South Asia, as China employs these and more advanced capabilities, and other states may begin to import similar Chinese systems. The use of airpower in the 2025 conflict and the loss of high-end Indian jets also have further implications for future India-Pakistan crises and the use of airpower globally, as discussed in the next section.

Broader Implications

The differing outcomes of the air wars in 1999 and 2025 suggest a range of implications, including the continuing and indeed increased importance of air defenses and their suppression, drone warfare, and electronic warfare. Pakistan was able to see and counter India's air strikes due to its robust air defenses and early warning radar. However, once India suppressed these capabilities, Pakistan was unable to counter Indian air operations with ground-based anti-aircraft capabilities and could not see incoming strikes in time to counter with their own aircraft. Additionally, the success of EW operations in the 2025 conflict highlight their growing importance in air warfare. The acquisition of advanced Chinese capabilities allowed Pakistan to overcome India's EW capabilities, making their jets vulnerable to counterair operations. India also likely had significant EW successes that helped thwart further Pakistani attacks. Finally, the use of drones highlights their growing importance in the battlespace, where their relatively low cost allows states to generate mass, overwhelm air defenses, and suppress air defenses and early warning radar at low cost and lower risk to human operators.[70]

Given this experience, New Delhi likely learned that they must escalate to strikes against military targets at the onset of hostilities to offset Pakistan's improved air defenses. Such a large strike against Pakistani military targets at the onset of a conflict would start hostilities at a higher level of escalation, leaving fewer rungs of the escalation ladder until nuclear employment. However, India is unlikely to be the first country that breaks the nuclear taboo, and the first use of nuclear weapons is contrary to the caution that has long characterized Indian strategic culture.

India likely learned they must start at a higher level of the escalation ladder

Historically, India only escalated after covering strategic and normative bases. In 1971, for example, India only launched its offensive into East Pakistan after Himalayan passes had closed in winter and the Soviets signed a treaty of "peace, friendship and cooperation" with India which effectively contained a security guarantee. During the Kargil war, the Indian military only responded with vigor after verifying the severity of Pakistani incursions. Even after ascertaining the scope of the incursions, India's response was limited, with strong constraints on operations and a prohibition on crossing the Line of Actual Control (LAC), which separates Indian-controlled territory from Chinese-controlled territory.

That said, a larger Indian strike against Pakistani military targets may significantly increase the perceived threat to state and regime survival in Islamabad, especially if Pakistani leaders misperceive the attack as a precursor to a

larger conventional operation. The degradation of air defense and early warning radars would reduce Islamabad's situational awareness, increasing the risks of misperception. Pakistan may be willing to escalate to nuclear use if an Indian attack was particularly crippling and Islamabad assessed its surviving conventional capabilities as an inferior retaliatory option. Using nuclear weapons to halt especially threatening conventional operations is a part of Pakistan's nuclear doctrine.[71]

The ability of Chinese capabilities to counter advanced Western technologies also suggests that the United States will need to suppress Chinese air defenses in the event of a regional war with China. Such operations could include an American defense of Taiwan or other regional allies. These attacks would also require strikes against Chinese military targets on the Chinese mainland, further increasing the risk of escalation. Such strikes would likely lead to more Chinese military casualties and civilian deaths. Possible losses may put greater pressure on Beijing to resort to prompt escalation. Military losses may make the leadership feel more vulnerable and they may want to avenge civilian deaths.

Degrading Chinese air defenses and early warning radars also risks issues of entanglement—when capabilities have both nuclear and conventional uses or when separate nuclear and conventional assets are indistinguishable as targets—leading to greater crisis instability and an increased risk of inadvertent escalation.[72] Air defense radars may also function as nuclear early warning systems. Electronic warfare operations against conventional command, control, and communication systems may degrade nuclear command, control, and communication capabilities. Finally, kinetic strikes against physical targets in China may damage or destroy nuclear capabilities if China is basing nuclear-capable aircraft or other nuclear assets near the intended targets. This analysis suggests that though the latest India-Pakistan skirmish was a South Asian conflict, it may well have strategic implications beyond the region.

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