Naval War College Review

Volume 70
Number 1 Winter
Article 6

2017

A Himalayan Challenge

Iskander Rehman

Follow this and additional works at: https://digital-commons.usnwc.edu/nwc-review

Recommended Citation

Rehman, Iskander (2017) "A Himalayan Challenge," Naval War College Review: Vol. 70 : No. 1 , Article 6. Available at: https://digital-commons.usnwc.edu/nwc-review/vol70/iss1/6

This Article is brought to you for free and open access by the Journals at U.S. Naval War College Digital Commons. It has been accepted for inclusion in Naval War College Review by an authorized editor of U.S. Naval War College Digital Commons. For more information, please contact repository.inquiries@usnwc.edu.

A HIMALAYAN CHALLENGE

India's Conventional Deterrent and the Role of Special Operations Forces along the Sino-Indian Border

Iskander Rehman

ver since 1962, when soldiers from the People's Republic of China inflicted a humiliating defeat on Indian forces, India and China have maintained an uneasy coexistence along the world's longest disputed frontier. While certain aspects of the Sino-Indian security dynamic have improved markedly, others have given rise to growing unease. On the positive side of the ledger, the two nations have succeeded in avoiding a direct, armed conflict since a bloody skirmish in 1967, and have developed a number of confidence-building measures to prevent isolated incidents from spiraling out of control. Similarly, neither country any longer actively sponsors proxies or foments insurgencies on the other's soil. Analysts also have pointed to the relative stability of the Sino-Indian nuclear dyad, which does not appear to present the same escalatory risks as the India-Pakistan strategic relationship.²

Other issues and developments, however, are cause for concern. While the Sino-Indian relationship may have become less overtly conflictual, the military rivalry between the two rising Asian powers has taken on different aspects and has spread to new theaters. In addition to their long-standing border dispute, there is now a maritime component to the Sino-Indian rivalry.³ Meanwhile,

Iskander Rehman is a senior fellow at the Pell Center for International Relations and Public Policy at Salve Regina University in Newport, Rhode Island. He holds a doctorate in political science, with distinction and a specialization in Asian studies, from Sciences Po (Paris).

Naval War College Review, Winter 2017, Vol. 70, No. 1

enduring sources of tension—such as China's military support of Pakistan and India's harboring of the Tibetan government in exile—continue to act as spoilers. Despite nineteen rounds of negotiations at the time of this writing, India and China have yet to define clearly the extent of many portions of their border—still officially designated as

the Line of Actual Control (LAC)—let alone resolve the issue. Finally, certain ongoing trends in Chinese strategic behavior—whether in China's near seas or along the Sino-Indian border—have generated grave concern in New Delhi, whose vocal strategic community regularly points to a perceived recrudescence in Chinese border incursions.

Following one particularly tense standoff in 2013, the Indian government confirmed the creation of a long-discussed new Mountain Strike Corps, with the professed goal of reinforcing India's conventional deterrent along the Sino-Indian border. This massive accretion in manpower was presented as part of a larger, more-sustained Indian effort to address a perceived growing military imbalance with China. A core component of this effort has been to reinforce India's basing and transport infrastructure in a singularly austere operating environment. These developments have been commented on widely, both in India and abroad. Yet there has been a surprising lack of granular analysis of the Sino-Indian military dynamic, whether in terms of the two states' respective orders of battle, competitive advantages and disadvantages, or theater strategies.

Drawing on field trips to the Himalayan border states of Sikkim, Himachal Pradesh, and Jammu and Kashmir as well as close to thirty interviews with intelligence officials and Indian Army (IA) and special forces officers, both serving and retired, this article aims to give a clearer picture of the security situation along the Sino-Indian border. In particular, it questions whether the Indian military's current operational concepts are sufficiently tailored to the nature of the terrain and the evolving Chinese challenge. It suggests a more proactive approach to territorial defense, one that places a greater emphasis on the integration of forwarddeployed, highly mobile teams of Indian special operations forces (SOFs) coupled with advanced intelligence, surveillance, and reconnaissance (ISR) and precisionstrike capabilities, and complemented by an extensive network of tribal scouts and militias.

To develop this argument, this article proceeds in three substantive parts. The first briefly summarizes the current military "state of play" along the border, outlining both countries' respective orders of battle, modernization plans, and operational concepts. It argues that, while possibilities for greater escalation always exist, in the near- to medium-term future any Sino-Indian territorial conflict is likely to be relatively limited in scope and short in duration, rather than a protracted, large-scale, force-on-force campaign. Such a conflict also would differ in a number of key characteristics from the war of 1962, most notably in that it would take place under a nuclear shadow and with the likely involvement of air, space, and cyber assets.

The second section conducts a survey of the literature on special operations and mountain warfare, and reflects on the role that Indian SOFs could play in

the event of a limited Sino-Indian border war. Their potential function as a force multiplier is examined along three axes, or spectra, of conflict: their ability to counter acts of creeping coercion, or "gray-zone aggression"; their aptitude to perform vital enabling functions in mutually denied or deeply contested areas; and their capacity to wage special warfare campaigns across the Plateau of Tibet. Throughout, the article draws attention to the distinct geographic characteristics of the putative battle space; the high elevations, harsh temperatures, and rugged topography of many critical subregions along the border would have a defining impact on any combat operations.

The third and final section evaluates whether India has developed the requisite capabilities to implement such a nimble, proactive strategy. It examines this question through a tripartite lens, focusing on the operational, institutional, and political-strategic barriers to implementing such a strategic shift. The research findings are summarized in the conclusion.

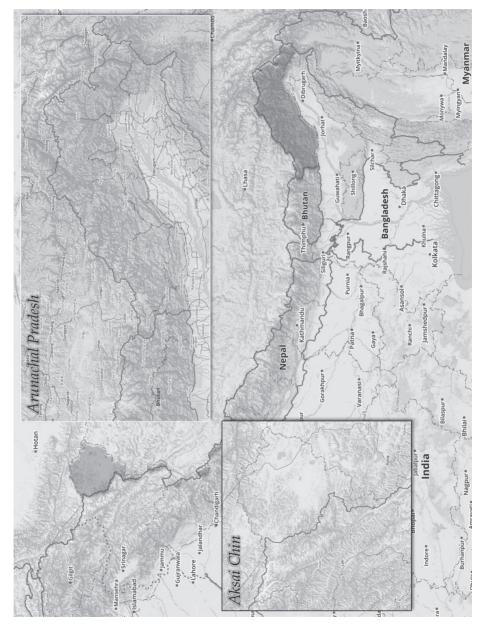
THE SINO-INDIAN MILITARY DYNAMIC ALONG THE LAC: THE **CURRENT STATE OF PLAY**

Certain misperceptions endure regarding the military balance along the Sino-Indian border. The most common is that China's localized military strength along the LAC far outweighs India's. In reality, India possesses a clear advantage in sheer number of troops. With regard to airpower, New Delhi also holds something of an edge over its trans-Himalayan rival, even though it may be eroding rapidly—in large part owing to the continued hemorrhaging of India's fighter fleet and the growing density and sophistication of China's integrated air defense system (IADS) in the Tibetan Autonomous Region (TAR). The vulnerability of India's air-basing infrastructure to artillery and missile strikes is, as we shall see, another concern. When it comes to mobile and lightweight artillery—perhaps one of the most critical factors, given the nature of the terrain—China holds the upper hand, in large part because of India's unending procurement woes in this domain.7

However, a simple bean-counting approach to the Sino-Indian military balance, based on various correlations of forces, rapidly reveals its limits. Indeed, analysts long have pointed to the manifold difficulties inherent in measuring military power and effectiveness. A nation's "conversion capability," or its capacity to convert resources into a balanced, well-trained, and technologically proficient force, is a key metric when gauging military power.8 Another is its ability to tailor its strategies and force structure effectively to the nature of the threat it faces.⁹

When examining the continental dimensions of the Sino-Indian military rivalry, four factors are important to keep in mind.

MAP 1 THE SINO-INDIAN BORDER



Source: Author's construction, based on Google Maps.

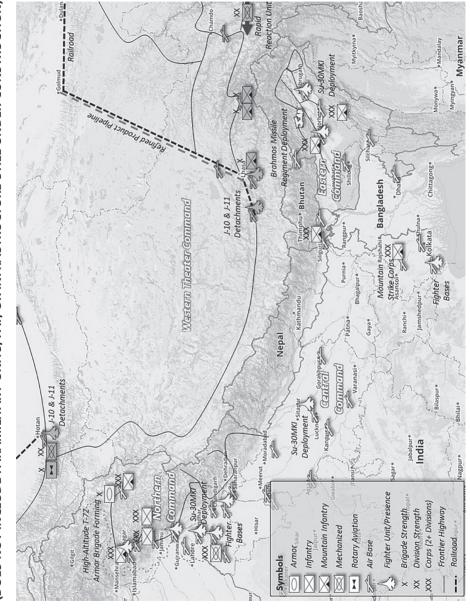
The first is the difference between the countries' territorial defense postures. Whereas India maintains a large (and growing) body of troops relatively close to the border, China's military presence in the TAR is more limited. In accordance with its doctrine on frontier defense. China stations most of its conventional forces in its interior, to be surged in times of crisis. ¹⁰ This posture has been facilitated by the impressive development of China's highway and high-speed railway networks, particularly the extension of the Qinghai–Tibet railway. 11 These logistical feats have not been lost on Indian planners, who estimate that Beijing could dispatch several divisions to the LAC within a few days. 12

The second defining factor is the nature of the climate and terrain. Topographically, different portions of the LAC vary substantially. Areas along the Indian side are not amenable to mechanized warfare, except certain parts of Ladakh and northern Sikkim. Owing to the high elevations of the Plateau of Tibet, Chinese ground forces benefit from some commanding advantages—they overlook many Indian forward positions, rendering surveillance and artillery operations easier to execute—and are better acclimatized physiologically to high-altitude warfare. 13 On the other hand, the altitudes of the TAR make high-tempo air campaigns more difficult: at very high altitudes jet engines take longer to ignite owing to lower air density, and fighter aircraft are constrained in terms of their overall payload capacity. The weather also can have an inordinate impact on the planning and conduct of military operations: in mountainous environments, meteorological conditions are highly unpredictable and can shift drastically within a few hours. 14 Extreme cold, altitude, and weather affect almost every element of military equipment, ranging from artillery cannon to helicopter rotors.¹⁵ Even precision-guided aerial munitions can undergo significant performance variations at very high altitudes. 16 During the harsh winters, certain mountain passes can be inaccessible temporarily, while other regions, such as Aksai Chin, paradoxically can be rendered more passable for heavy vehicles by the presence of a thicker layer of frost and ice. In Arunachal Pradesh, some of the world's heaviest quantities of rainfall regularly cause landslides, disrupting motorized traffic and troop movements.

The third major factor is the infrastructure disparity along the LAC. Whereas Chinese troops can gain rapid access to most areas along the LAC, Indian troops often have to trek several hours, if not days, to attain certain areas. 17 The People's Liberation Army (PLA) also benefits from a much more robust, multilayered communications architecture, having laid fiber-optic cabling and installed numerous small-aperture terminal satellite stations. 18

Finally, the two nations have erected very different command structures along the border. Whereas in India the responsibility for the defense of the LAC is divided among several regional army and air force commands, in February 2016

(DOES NOT INCLUDE PARAMILITARY UNITS, PAP, OR INFRASTRUCTURE STILL UNDER CONSTRUCTION) SINO-INDIAN BORDER DEPLOYMENTS



Source: Units located via IHS Jane's database, August 2016.

China announced a major military rezoning that folded the former Chengdu and Lanzhou Military Regions into one unified western theater command. 19 This will have an impact on China's military effectiveness in the event of conflict, noted one Indian defense analyst, allowing for greater unity of effort and a "more rationalized marshalling of military resources."20

CHINA'S REVITALIZED WAR-ZONE STRATEGY AND THE **EVOLUTION OF INDIA'S TERRITORIAL DEFENSE**

China's Revitalized War-Zone Strategy

Chinese war planning traditionally has placed a heavy emphasis on preemptive military action as a means of seizing the initiative and throwing an adversary off balance. Considered under the overarching rubric of active defense, PLA operations in the Korean War of the early 1950s, the Sino-Indian War of 1962, and the Sino-Vietnamese War of 1979 all have been qualified by Chinese analysts as "selfdefensive counterattacks," even though in each case it was Beijing that launched general hostilities.²¹ For Chinese thinkers, there is no clear conceptual firewall separating defensive grand strategies from offensive military tactics. To the contrary, preemptive military action is framed as an integral part of the Chinese concept of escalation management, or war control.²² Beijing's military planning with regard to the Sino-Indian border is a reflection of this tradition, and of its broader thinking on "war-zone campaigns" and "winning informationized local wars."

With the dissolution of the Soviet Union at the end of the Cold War, the PLA began to redefine some of its core strategies and concepts. The war-zone campaign doctrine, formulated in the 1990s, placed a new emphasis on jointness, transtheater mobility, and the rapid massing of strength on a particular front.²³ Writings called for the concentration of "elite forces and sharp arms" and stressed the importance of "gaining initiative from striking first" and "fighting a quick battle to force a quick resolution." When it came to conflicts along China's terrestrial borders, it was argued that a growth in the effectiveness of transregional support operations—principally via enhanced rail mobility—would allow the PLA to surge units stationed deep within China's interior rapidly. These forces would be shielded by interlocking "mobility corridors" generated by early strikes on an adversary's standoff platforms or the movement of mobile surface-to-air missile (SAM) batteries.²⁴ China's concept of informationized local wars, which complements in many ways the war-zone campaign doctrine, attaches inordinate importance to operations in the cyber and space domains and to prevailing in the electromagnetic spectrum.²⁵

Many of these key tenets permeate contemporary Chinese military thinking with regard to future operations along the LAC. Thus, in the event of a conflict with India, conventional forces would be surged from the Chinese interior, with

the vast majority being deployed via rail, and another portion being flown in via heavy airlifter, and potentially also via government-requisitioned civilian aircraft.²⁶ As Larry Wortzel has noted, the Chinese fully seem to expect that air, cyber, and electronic operations will be part of any Sino-Indian border contingency.²⁷ A key role of the PLA Air Force (PLAAF), along with the PLA Rocket Force (PLARF), would be to conduct standoff strikes to interdict, disrupt, and delay the arrival of Indian forces coming from the lowlands. As one Chinese military analyst notes, "Along the Sino-Indian borders, where the IA enjoys . . . manpower superiority vis-à-vis the PLA, the PLAAF will launch 'shielding bombardment' campaigns in a defensive land war to rebuff the enemy's second-tier infantry and logistical reinforcement. If India's supporting units are delayed in getting to the battlefield, PLA reinforcements from the rear can arrive at the front line to consolidate the defense line and launch a counterattack."28

PLA SOF units no doubt would be central to China's concept of "key counterattacks." According to the PLA's The Science of Campaigns, one of the key roles of Chinese special operations units would be "to assault enemy vital targets, paralyze enemy operational systems, reduce enemy operational capabilities, and interfere, delay, or disrupt enemy operational activities to create favorable conditions for main force units."²⁹ One recently retired Indian SOF general drew attention to this aspect of Chinese thinking on special operations, noting, "If a divisional size attack is launched, say, in Tawang, then the Chinese could employ SOFs to cut off all routes for buildup of reserves, attack specific sensors, and also raid artillery and logistic locations. The deep induction of SOFs for providing early warnings and information on the movement of Indian reserves could also be tasked."30

China's Western Military Region possesses its own SOF brigade (formerly attached to the Chengdu Military Region) and both the Xinjiang and TAR Military Districts have large, dedicated SOF units, as well as elite, rapid-reaction units of People's Armed Police (PAP).³¹

India also has been following, with a certain degree of trepidation, the rapid development of China's airborne assault capabilities, in the form of the PLAAF's 15th Airborne Corps. Consisting of three divisions numbering over 35,000 troops, with a light artillery and mechanized component, the 15th Airborne Corps is headquartered in Xiaogan, from which it is expected to reach any part of China within ten hours.³² The Central Military Commission has prioritized its modernization, and its capabilities recently were bolstered by the introduction of the Y-20 heavy airlifter. ³³ The 15th Airborne Corps is considered "key to the War Zone Campaign Concept" and would be used "for the kind of disruptive deep strikes that the War Zone Campaign calls for."34 Indian military planners have monitored closely the growing number of large-scale airborne exercises the PLA

has conducted in the TAR over the past few years, with one retired air marshal making the following observation: "We are aware of China's increasing focus on airborne assault operational capability, involving integrated forces. . . . A future [limited] war could see the Chinese depending heavily on their airpower for air defense and air support. Offensive operations would be SOF- and air assault forces-intensive, unlike the simple infantry operations of 1962 vintage."35

India's concerns over certain aspects of the PLA's war-zone campaign doctrine and evolving force structure have been amplified by recent developments in China's strategic behavior, most notably along the Sino-Indian border but also in the South and East China Seas. Since the eastern Ladakh border standoff in 2013, there have been a number of similarly fraught confrontations.³⁶ One such incident in 2014 reportedly led to the deployment of close to one thousand troops by each side.³⁷ Territorial incursions have continued ever since, with notable tensions flaring in September 2015 and, most recently, in March 2016.³⁸

The Evolution of India's Attitude toward Territorial Defense

India's responses to China's intensified military coercion have been twofold. First, the country has decided to augment its force structure significantly, with new battalions of scouts; via the stationing of additional air, missile, and surveillance assets; and by raising a new Mountain Strike Corps. Second, it has sought to remedy one of its key defensive shortcomings: the paucity of rail and road infrastructure in certain key border regions.

The latter represents an important shift away from the so-called scorchedearth strategy that had held sway since 1962. For many decades Indian military planners deliberately eschewed the development of border infrastructure, as they feared it would facilitate Chinese ingress deep into the Indian plains and lowlands.³⁹ According to one informed journalistic account of the Indian military's thinking vis-à-vis the Sino-Indian border, it was only in the middle of the first decade of this century that the IA began to see the pitfalls of this approach more clearly. 40 The lack of solid infrastructure along the Indian side of the LAC had rendered large tracts of contested land acutely vulnerable to Chinese probing and creeping forms of encroachment. Trudging through treacherous terrain on foot or via mule train, Indian patrols often discovered Chinese preparation of positions or infrastructure development only weeks after it had occurred. In the depth of winter, when snow rendered some footpaths impassable, Indian forces tacitly conceded certain areas, only to reinvest them in the spring. In the event of a standoff, China could surge reinforcements more rapidly, with Indian troops perhaps taking hours, if not days, to arrive at their destination. In short, while an absence of infrastructure conceivably could help delay a large-scale invasion, it had proved remarkably inadequate at deterring Chinese military coercion and territorial encroachment.41

It also had become gradually more apparent that a short-duration, limited, border conflict is far more likely than a protracted, large-scale, force-on-force campaign, not only because of the nature of current Chinese operational planning, but because both nations would be conducting military operations under a nuclear overhang. As one much-discussed Indian report noted in 2012, "Though both countries have a doctrine of 'no first use,' the nuclear factor can be expected to impose caution on political decision makers on both sides. The stakes at issue will again determine the degree of risk in political calculations. Generally, the nuclear factor can be expected to limit the scale of conflict and impact the scope of feasible political objectives."42

Finally, the longer the conflict lasts, the more likely it will attract third-party intervention in the form of diplomatic or military assistance or both. According to declassified Central Intelligence Agency (CIA) reports, this was one of the main reasons China planned for a short, limited war in 1962.⁴³

Responding to a limited-war contingency requires operational agility and the ability to respond rapidly and effectively to a crisis. 44 This reinforces the need for a tighter web of infrastructure that can enable Indian forces to react promptly to any "tremor felt along any one of its strands." 45

Over the past few years, India has launched a bevy of large-scale border infrastructure projects, albeit with chequered results. While some progress has been made in certain areas, most of India's road and rail construction projects have fallen victim to considerable delays. As of May 2016, only twenty-one of sixty-one border road projects designated strategic had been completed.⁴⁶ Similarly, while the Indian government sanctioned the construction of twenty-eight strategic railway lines along India's borders in 2010, six years later none have been finalized.⁴⁷

The accretion of India's conventional force structure along the LAC and the attendant development in infrastructure provide two material indicators of the shift in India's defense strategy toward China. The most significant change, however, has occurred in the intellectual domain, as Indian defense planners have adopted a much more vigorous, tactically offensive approach to territorial defense. The creation of the Mountain Strike Corps, note Indian commentators, was part of a larger movement toward deterrence by punishment and away from what has been perceived to be an overreliance on deterrence by denial in the past. 48 Indeed, for many decades India's two-front planning construct called for India simply to hold along the border with China while its forces engaged in more-offensive operations against Pakistan to the west.⁴⁹

This approach progressively has been replaced with what has been described to this author variously as a form of "offensive defense," a "quid pro quo strategy," and a "cross-border riposte strategy." Following Clausewitz's well-known dictum that "a swift and vigorous assumption of the offensive" is often the most "brilliant

point in the defensive," Indian military planners have adapted their concepts of operation to the natures of both the opponent and the topography. 50 As one army colonel candidly noted, mountainous terrain "can favor the first mover," adding,

Once the Chinese seize a position, it may be very difficult to dislodge them. Rather than expend much blood and treasure attempting to storm impregnable positions, we should pursue a strategy of horizontal escalation and capture territory elsewhere. If you cannot counter symmetrically, you can effectively counter by shifting the locus of the battlefield. The political compulsions of territorial defense make things very difficult for us in the Army. Our elected government will not tolerate us losing even one centimeter of territory. This cannot be achieved without us seizing territorial chips for bargaining purposes elsewhere. We have to think of conflict termination.⁵¹

Another IA officer concurred, observing, "Raising the strike corps was part of a move to create a more offensive defense. If India's sovereignty is weakened, we should have the ability to mount a riposte. If the PLA strikes at Tawang, we can provide a mechanized Indian response via Ladakh. In the past we had a dissuasive posture, solely focused on static defense. Deterrence is now being rebalanced."52

Both Ladakh and northern Sikkim are considered good locations for mounting such a mechanized riposte, not only because they provide some of the few staging areas along the Indian side of the LAC conducive to mechanized warfare, but because they overlook main axes of approach (the plateau of Aksai Chin and the Sora Funnel) and logistical lifelines, such as the China Western Highway.⁵³ In the event of conflict, India's mechanized forces would sweep down from these mountain plains to conduct pincer movements behind advancing Chinese formations, with the hope of breaking troop concentration.⁵⁴

India's mechanized counteroffensive would form only one component of a wider theater strategy, however. In addition to these movements, Indian air and missile power would be brought to bear on transport and communication nodes deep within the TAR, with the goal of delaying or preventing the arrival of PLA reinforcements.55

INCORPORATING SOFS INTO INDIA'S CURRENT APPROACH TO AREA DENIAL

Despite this shift toward a more offensive form of area denial, India's current approach to conventional deterrence along the LAC appears to suffer from certain limitations. Indeed, while New Delhi's overarching military strategy has evolved—most notably by more vigorously stressing the need for cross-border strikes—the force structure changes it preconizes are remarkably similar to those pursued in the wake of the 1962 war: a massive accretion in conventional land power.56

New Delhi also continues to rely on geographically dispersed conventional units or on poorly equipped paramilitary forces, the latter in the form of the Indo-Tibetan Border Police (ITBP), as India's first line of defense in many of the forward areas most vulnerable to Chinese aggression. 57 The rugged nature of the topography, along with the continued paucity of infrastructure, means that even though India forward-deploys a large number of conventional screening forces along some of the most obvious axes of approach (the five main river valleys in Arunachal Pradesh, for instance), these troops are relatively static and could be outflanked by small detachments engaging in rapid lateral movements.⁵⁸

Meanwhile, a large portion of the IA's mechanized units still will be stationed in the lowlands, with the expectation that they would be rushed to higher altitudes in the event of conflict. Not only would this prove logistically challenging owing to the enduring deficits in India's road and rail infrastructure; it also would prove physically taxing.⁵⁹ In contrast to the first wave of PLA troops flowing from the heights of the Plateau of Tibet, Indian troops deployed from interior garrisons would be surged into combat before having been acclimatized properly. 60 Medical studies have shown that a physically fit soldier requires about two weeks to adapt progressively to a new altitude, and three weeks to conditions of extreme cold.⁶¹ In the absence of proper acclimatization, soldiers operating at extreme altitudes can suffer from acute mountain sickness, severe sleep disorders, high-altitude pulmonary edema, and cerebral edema.⁶²

Second, such a manpower-centered approach to deterrence already has proved to be prohibitively costly. In April 2015, Defence Minister Manohar Parrikar announced that the planned Mountain Strike Corps would be halved to approximately 35,000 troops for financial reasons, and that the formation budget for the corps would be frozen at U.S.\$6.1 billion, significantly less than the originally sanctioned U.S.\$13.8 billion.⁶³ Scandal already had erupted a year earlier when it was revealed that the IA had been compelled to dip into precious weapon and ammunition reserves to equip its newly raised forces properly. 64 While the Indian defense minister appears to have reversed his prior decision, renewing assurances that the Mountain Strike Corps would be resourced properly, India's efforts to add thousands more boots on the ground inevitably will prove onerous. 65 Indeed, India's expansion of its ground forces has been accompanied by a rise in personnel costs, a trend that is slated to increase exponentially over time.⁶⁶

Finally, the natural compartmentalization of much of the terrain—which often does not allow large units to maneuver effectively—disincentivizes the massing of force, especially when moving uphill.⁶⁷ As India's conventional forces wind their way up narrow, mountain roads to higher elevations or are funneled through mountain valleys, they could find themselves targeted by Chinese artillery barrages, missile strikes, and "shielding bombardment campaigns." They might suffer disproportionate casualties when targeted by Chinese forces positioned in height and depth or find their main axes of approach to certain remote areas suddenly cut off.68

In short, India's intense reliance on large, centralized, conventional forces—a substantial portion of which are stationed at lower altitudes—would not be the most operationally judicious approach in the event of a short, fast-moving, limited war launched from high elevations along the LAC.

One French study on mountain warfare notes that for conventional forces to assail higher-altitude positions successfully, they must rely on a "different yet complementary force," that is, a force that is "decentralized, highly trained, and optimized for heliborne assault and the neutralization of enemy positions located at higher vantage points."69 The next section of this article makes an argument for providing the IA with a similarly "different yet complementary force"—one that is forward deployed, distributed, and able to respond both rapidly and effectively to various contingencies. The candidate force—a mixture of SOFs and locally raised scouting battalions—would be geared toward rapid reaction and proactive defense.

The argument is *not* that large-scale conventional forces have no role to play in the event of a Sino-Indian border contingency, or that India should rely exclusively on special operations for conventional deterrence along the border. Many of the missions at the heart of India's operational concepts—such as the seizure of limited tracts of territory—are suited to mountain infantry, not SOFs. 70 Rather, the emphasis is on developing a better complementarity between these elements rather than on clearly dissociating them. Indeed, it has been demonstrated repeatedly that modern militaries are at their most effective when they succeed in integrating conventional and special operations within a common, clearly defined, strategic framework.⁷¹

PROACTIVE DEFENSE AND THE ROLE OF SPECIAL OPERATIONS **FORCES**

This section evaluates the role of India's SOFs within the framework of a more proactive territorial defense strategy. India possesses a large number and variety of elite units, some of which fall under the Home Affairs Ministry, such as the National Security Guard (NSG), which focuses almost exclusively on counterterrorism (CT) operations, and the Special Protection Group, a VIP-protection unit. To add to the confusion, some units occasionally qualified as SOFs in India, such as the IA Ghatak platoons and the Sagar Prahari Bal—the latter a unit formed following the 2008 Mumbai attacks to provide better coastal security are not so much special operators as specialized forces.

MAP 3 EXPLORING THE ROLES OF INDIAN SOFS ALONG THE SINO-INDIAN BORDER



Source: Author's graphical construction superimposed on Google Maps.

The primary focus of this discussion is the SOF units most likely to play a role in the event of a Sino-Indian border conflict: the SOF-qualified elements of the IA's Para Commando battalions and, to a lesser extent, the relatively newly formed Garud unit of the Indian Air Force (IAF). At the time of this writing, the IA possesses eight battalions of special operators (Para SFs), with plans for future expansion, as well as five battalions (a brigade) of airborne paras, which are more akin to airborne assault units. 72 Each battalion nominally is pegged at approximately seven hundred men, but many units reportedly are undermanned, underequipped, and suffering from a 30 percent officer shortfall. The Garud, which was formed in 2003, currently comprises about one thousand troops, and their numbers will double in the aftermath of the attacks on Pathankot Air Base in early 2016. The IAF has struggled to define the role of the Garud adequately, beyond base protection. (While the Indian Navy's SOF component, the Marine Commando Force [MARCOS], has been stationed in small numbers at certain high-altitude lakes in Jammu and Kashmir, its role would be minimal at best, and therefore MARCOS will not be addressed further.)

Another unit, the fabled Special Frontier Force (SFF), will be discussed in addition to the Para SFs and the Garud. 74 Formed in late 1962, following the Sino-Indian War, the SFF is part of India's external intelligence agency, the Research and Analysis Wing (RAW), and answers directly to the Cabinet Secretariat.⁷⁵ Modeled on the Kennedy-era Green Berets, the unit is rumored to contain about ten thousand soldiers, trained to conduct operations behind enemy lines and engage in special warfare. 76 There is some debate over whether this secretive force has preserved its elite status as well as its original mandate.

The roles of these units will be examined along three axes: their utility in countering gray-zone aggression, their aptitude for engaging in direct action behind enemy lines, and their ability to conduct special warfare in the TAR.⁷⁷

COUNTERING GRAY-ZONE AGGRESSION

Over the past few years, numerous observers have drawn attention to the challenge that acts of creeping coercion pose to the international order. These concerns have been compounded by revisionist powers' shared predilection for socalled gray-zone strategies, a combination of "salami-slicing" tactics, information warfare, and military coercion.⁷⁸

Certain aspects of gray-zone campaigns, such as the use of proxies, long have been familiar to Indian security managers, who have had to contend with such modes of Pakistani covert action since independence.⁷⁹ China's historic use of infrastructure development as a means of cementing-literally-its claim over contested territory is also well known in New Delhi. After all, many past episodes of border tension have occurred following Indian forces' belated discovery of

Chinese road and basing development in remote border areas. Despite India's familiarity with such forms of great-power competition, its strategic community's literature on the challenges that gray-zone aggression poses is surprisingly sparse. Moreover, when Indian strategic thinkers reflect on such issues, they tend to do so with Pakistan in mind rather than China. Yet as demonstrated in the first section of this article, the threat of gray-zone aggression should not be perceived as exclusive to Indo-Pakistani security dynamics.

Within U.S. strategic circles, it is the special operations community that perhaps has thought the longest and hardest about how to counter such forms of territorial encroachment effectively. As one recent official document notes, democracies can face certain disadvantages when confronting authoritarian rivals whose decision-making and civil-military structures can facilitate "unity of effort in the gray zone."80

For the same reasons that SOFs can prove immensely attractive to democracies when prosecuting CT operations overseas—their tactical agility, deniability, and restricted oversight—they are emerging as the tools of choice in responding to certain features of authoritarian aggression.⁸¹ For example, in the event of Chinese operatives landing on the Senkaku Islands (claimed by both China and Japan), disguised as fishermen, Japanese military planners view "advance parties" of heliborne special forces as forming one of their first lines of defense. 82 Similarly, central and eastern European states envision rapid-reaction SOF units as providing some of the most effective counters to any future Russian attempt to replicate a Crimean "little green men" strategy on NATO soil. 83

SOFs provide democratic policy makers with the capacity to respond rapidly, effectively, and in a tailored manner to such acts of infiltration, subversion, or sabotage.⁸⁴ In India's case, a wide variety of scenarios were mentioned in the course of private conversations with the author, such as Chinese clandestine operatives or SOFs entering Arunachal Pradesh or Sikkim disguised as Tibetan refugees, nomadic herdsmen, or economic migrants from India's troubled northeastern territories. 85 Indian military officers also expressed concern over their past inability to detect Chinese infrastructure development in a timely fashion and mentioned the possibility of Chinese engineers discreetly constructing small landing grounds, hidden ammunition depots, and SAM sites during the offseason when Indian soldiers no longer can gain access to certain areas close to Chinese positions, owing to snow and the paucity of infrastructure on the Indian side of the LAC.86

To respond with alacrity to such scenarios, Indian SOFs would need, first and foremost, to be able to detect them. India's advances in space-based surveillance, along with the planned introduction of a large number of surveillance platforms—in the form of high-altitude unmanned aerial vehicles (UAVs) and

aerostats—promise to help in this regard, but the difficult nature of the terrain imposes limitations. 87 India has been contemplating erecting Israeli-type security systems along certain portions of its border with Pakistan, complete with nightobservation cameras, long-range detection radars, motion sensors, and thermal imaging.⁸⁸ However, the deep valleys and craggy peaks that prevail across much of the LAC—not to mention the prohibitive expense—preclude such ambitious technological solutions.⁸⁹ Radio, radar, and even satellite communications systems have difficulty operating around terrain folds, and the very fact that the Sino-Indian border has not been delineated officially means that China would view any large-scale Indian fencing effort as a severe provocation. 90

As a result, human intelligence (HUMINT) would prove absolutely critical in detecting Chinese gray-zone operations, whether the latter were in the form of cross-border infiltrations, illicit infrastructure development, or attempts at sabotage and subversion. For decades, Indian intelligence services have depended on the knowledge gleaned from nomadic herders, who frequently wander between Indian- and Chinese-controlled territory along the LAC. 91 Religious pilgrims and resident tribal populations provide other valuable sources of information. India should seek to sharpen its HUMINT capabilities further along the LAC, by recognizing that the key to preserving long-term control lies in the degree of influence it wields over the complex patchwork of border peoples. For example, in Arunachal Pradesh alone there are more than twenty-six major tribes and one hundred subtribes. 92 India should focus on training more of its intelligence officers and SOFs in the languages and dialects of the many peoples along the border and on fast-tracking the central government's much-delayed Border Area Development Program (BADP), with a particular focus on the regions most likely to be the targets of future Chinese incursions, i.e., Arunachal Pradesh and Ladakh. 93 A less heavy-handed policing approach in certain areas also might prove constructive in terms of winning hearts and minds and might foster better information sharing between local communities and Indian authorities.⁹⁴

Finally, the addition of more tribal and local forces—in the vein of the Ladakh Snow Tigers or the recently raised scout battalions from Sikkim and Arunachal would buttress considerably India's conventional deterrent in its border regions. 95 Not only does this constitute a low-cost approach to frontier policing; it also provides Indian security managers with a year-round, forward-deployed, "trip wire" force whose members are physiologically acclimatized to high altitudes and mountain warfare and have an innate knowledge of the terrain and local conditions. 96 Because of their familial ties with local villagers and herdsmen, these scouts are better positioned to recognize signs of cross-border infiltration. Small teams of Indian special forces—in the form of joint terminal attack controllers (JTACs) or communications experts—could be attached to each battalion, much in the way the United States embedded small teams of SOFs among its Northern Alliance partners during Operation ENDURING FREEDOM. 97 This would provide lightly armed tribal and ethnic battalions with the ability to call on airpower or follow-on conventional forces in the event of an encounter with a more formidable foe. Equipping select teams of Sikkim and Arunachal Scouts with antitank guided missiles, light mortars, and shoulder-mounted rocket launchers, in the vein of the Ghatak platoons that act as the spearheads of conventional IA units, also could prove valuable. 98 The goal should be to provide the IA not only with lightly armed reconnaissance units but also with hybridized structures that can help mount a Fabian defense of their respective home states in the event of a larger-scale Chinese incursion, by delaying, harassing, and attriting PLA forces.⁹⁹

DIRECT ACTION AND ENABLING OPERATIONS

India, albeit somewhat more belatedly than China, has begun to attach more importance to airborne assault operations, especially their utility for targeting Chinese transport and communications infrastructure in the TAR in the event of conflict. 100 There is also a growing realization among some military thinkers that Indian SOFs could be called on to play a critical role behind enemy lines, conducting sabotage, reconnaissance, and direct-action operations. While one serving IA special forces colonel cautiously stated that "Indian SOFs would be used for direct action operations primarily on Indian soil, with the occasional cross border deployment in a limited manner," another IA special forces brigadier was less circumspect, observing that "India's dissuasive posture being based in part on the threat of horizontal escalation, SOF operations behind Chinese lines will necessarily be part of the mix." ¹⁰¹ IA doctrine, for its part, defines special forces as "specially selected troops who are trained, equipped, and organized to operate in hostile territory, isolated from the main combat forces. They may operate independently or in conjunction with other forces at the operational level. They are versatile, have a deep reach, and can make precision strikes at targets of critical importance."102

It is this last function—the ability to strike at rear-based targets—that seems to hold the most appeal for Indian military planners. There is a recognition that the combat environment straddling the Sino-Indian border may morph progressively into something of a no-man's-land for large clusters of ground forces and high-signature platforms, owing to the growing ubiquity of extended-range, precision-guided munitions. The PLA's increased focus on transtheater mobility and the ability to deploy SAMs, truck-mounted UAVs, and land-attack cruise missile batteries rapidly along its side of the LAC has engendered particular anxiety in New Delhi. 103 Indian advanced landing grounds and air bases are increasingly vulnerable to missile and artillery bombardment. 104 Furthermore, the

government has yet to finalize the construction of hardened shelters for the IAF's squadrons of Su-30MKI aircraft. 105 While Indian fighter pilots have begun to train using sections of road and highway as dispersal runways, other passive defenses could be implemented, such as investing in large numbers of subterranean shelters with large stockpiles of munitions, lubricants, and petroleum. 106 Absent such efforts, Indian airpower near the border effectively may be crippled in the first phases of conflict, or could suffer from virtual attrition—devoting the bulk of sorties to defensive counterair missions or to suppressing enemy air defenses, rather than conducting precision strikes against enemy air bases and ground targets. 107 This role, note some Indian military officials, may need to be entrusted to small demolition teams of SOFs, which could carve "holes" in China's reconnaissance strike complex and provide terminal guidance for standoff missile strikes conducted from outside the range of China's IADS networks. In some ways, this resembles Soviet thinking on the deployment of Spetsnaz SOFs behind NATO lines for sabotage and demolition missions against mobile missile batteries. 108

This "penetrating role" is in line with the conceptualization by some U.S. analysts of SOFs as low-signature entry forces within heavily denied or contested environments. 109 IAF doctrine specifies that the "destruction and degradation of enemy air assets" constitute one of the core functions of its dedicated SOF unit, the Garud. 110 One retired IA brigadier confided the following:

In the conceptualized role of the mountain strike corps, the future Air Assault Division and Special Operations Forces will operate in tandem as part of India's area denial strategy. What is implied is, SOFs will be inserted up to and beyond an operational depth to disrupt the build-up of PLA forces, isolate and invest critical vulnerable points and areas. These isolated vulnerable points will then be attacked via air assaults through heliborne and airborne forces. It is important to keep in mind that the Tibetan plateau is a plane with little undulations, which allows for the application of both air assault forces as well as air assault mechanized forces. 111

The challenge, however, would be to succeed in inserting SOF guidance and demolition teams in the absence of dedicated, stealthy airlifters. 112 Advances in air-defense systems and long-range surface-to-surface fires have raised new questions about how to conduct airborne operations without incurring large-scale, potentially catastrophic losses. 113 Large, high-signature transport aircraft, such as India's C-17 Globemasters or C-130J Hercules, would be vulnerable to Chinese radar-guided SAMs—providing the latter had not been suppressed prior to the air assault. More-discreet modes of airborne insertion, e.g., via low-flying heliborne strike forces, still could be put at risk by lower-altitude air-defense systems and antiaircraft guns. 114 Indian troops most likely would need to establish drop zones at a distance from the densest thickets of Chinese low-altitude systems and rely on airborne light armored vehicles (LAVs) to gain greater mobility and

firepower and compensate for the distances separating their lodgments from their target points. 115 The U.S. Army has been developing a new family of LAVs designed for this particular role and Indian SOF officers expressed interest in acquiring several such vehicles, with future airborne assault operations in mind. 116

Once successfully inserted, Indian SOF teams may need to operate "blind" within an environment characterized by the denial of command, control, communications, computers, and ISR (i.e., C4ISR) capabilities, particularly if India's fragile space-based communications architecture has been degraded or disabled preemptively. Mindful of this, the IA has released an updated request for information (RFI) for mini battlefield UAVs, which senior officers have indicated would enable two-man IA SOF teams to conduct over-the-hill surveillance behind enemy lines. 117 The introduction of longer-range, high-altitude UAVs, when combined with a more-robust satellite and airborne communications network, also could improve IA ability to locate and direct fire at enemy targets situated at greater distances as well as to preserve communications among dispersed units. 118

Finally, if a Chinese offensive indeed proves to be air assault-intensive, small teams of Indian SOFs equipped with shoulder-mounted SAMs could prove invaluable. Given the rough, mountainous terrain, limited avenues of approach, and growing ability of China to target larger formations of conventional forces, SOFs could provide a key comparative advantage in this more defensive role. 119

WAGING SPECIAL WARFARE IN THE TAR

The Tibetan issue always has been at the heart of Sino-Indian tensions. 120 For New Delhi, the PLA's absorption of the mountain territory in 1951 signified the loss of a historic buffer zone, and the progressive hardening of Beijing's Tibet policies has caused both anger and dismay. For China, India's harboring of the Dalai Lama and the Tibetan government in exile following the 1959 Tibetan uprising amounted to an almost unforgivable affront. Throughout the late 1950s and up to the 1962 border war, Chinese intelligence remained absolutely convinced that India was attempting to foment unrest across the Plateau of Tibet. 121

Following India's defeat, Prime Minister Jawaharlal Nehru made the fateful decision—long encouraged by certain of his intelligence czars—to aid and abet insurgency movements within Tibet and to arm India's sizable Tibetan refugee community. 122 A large paramilitary unit, the ITBP, was raised and entrusted with patrolling forward areas along the LAC.

In addition, a much more secretive force was established: the SFF. Composed of thousands of ethnic Tibetans, many of whom had been resistance fighters in the TAR or part of the Dalai Lama's bodyguard, the SFF was an elite unit of paratroopers trained in mountain warfare, sabotage, and demolition. Commanded by IA officers on special assignment, the unit is "managed" by RAW and reports

directly to the Prime Minister's Office via the Directorate General of Security in the Cabinet Secretariat. The CIA played an important role in shaping the SFF's development in its early years, providing training and instruction in guerrilla warfare tactics. 123 Doctrinally, the unit is inspired heavily by Kennedy-era U.S. Army Special Forces, with the Green Berets' intellectual predilection for special warfare and operations deep behind enemy lines. 124 In fact, this was the SFF's original mandate. Some claim that Nehru even went so far as to frame the SFF as the potential vanguard of a future liberation of Tibet from Chinese rule. 125 Since its creation, the SFF has played an active role in India's regional conflicts, fighting behind enemy lines in Bangladesh alongside Indian-sponsored militias—the Mukti Bahini—in the war of 1971, detonating bridges, and suffering, according to some accounts, dozens of casualties. 126 Unconfirmed reports also have indicated that the SFF played a role in the Indian military assault against the Golden Temple, Operation BLUESTAR, in 1984 and in the Kargil War of 1999. 127

The current state of the SFF is difficult to ascertain. The unit continues to exist and is based in the hill town of Chakrata, in the state of Uttarakhand. Details pertaining to its force structure, equipment, and operational mandate in the event of a Sino-Indian confrontation are considered extraordinarily sensitive. Even retired IA special forces officers were distinctly uncomfortable when questioned on the matter. Some claimed complete ignorance, stating that the SFF's operations and training regimen were strictly compartmentalized, with little to no interaction with regular military SOFs. This is clearly not the case, as Para SFs are seconded to SFF units frequently. When queried on its alleged elite status, one former IA general dismissed the SFF as little more than a "rag tag force, poorly equipped and no longer commando-trained." 128 A smattering of press reports has drawn attention to troubling shortages in certain essential pieces of equipment, such as parachutes. 129 There is also uncertainty surrounding the force's dedicated air-transport assets, now that the Aviation Research Center, RAW's private air wing and border-surveillance unit, has been dissolved and split between the IAF and the National Technical Research Organization, a signals-intelligence agency created in 2004. 130 Overall, however, other interviewees' assessments were at odds with those of the general. Many expressed a grudging admiration for the toughness of those "Tibetan boys," as well as that of the Gurkhas and hill tribesmen who have swollen the SFF's ranks over the years.

The main question, however, relates to the contemporary role of what some have referred to as India's "secret Tibetan army." Ever since the late 1970s and the tentative beginnings of Sino-Indian rapprochement, a tacit quid pro quo arrangement has been observed. China agreed to end its support for insurgent groups in India's troubled northeast, while India subscribed to a one-China policy and officially abandoned its clandestine efforts across the Tibetan border. ¹³¹ However, the reality is somewhat more complex. Although China no longer directly supports militancy in places such as Nagaland, Mizoram, and Assam, Chinese middlemen have been known to funnel in weaponry via countries in Southeast Asia. 132 Meanwhile, other countries, such as Pakistan, continue to play an active role in the area, raising questions over whether China chooses to maintain close ties with certain of these groups via a third party. 133 When it comes to India and Tibet, there is a similar sense that New Delhi could revert to older policies if it found itself compelled.¹³⁴

For this reason—for purposes of what might best be described as a form of unconventional deterrence—it would appear that the SFF has remained true to its special warfare roots. One former planner within India's Integrated Defence Staff commented that, in his opinion, "in light of current circumstances, I see no reason to dilute the operational mandate." A recently retired Para SF lieutenant general responded in a more oblique fashion, saying that "envisioning what role the Tibetan boys would play does not require much imagination." ¹³⁶ Serving officers either refused to respond or simply suggested that there had been "no change in their tasking." ¹³⁷

One might question, however, whether the SFF would be able to prosecute such a campaign successfully in today's environment. First, such an effort most probably would be far more isolated than if it had occurred during the early to mid-1960s, when the SFF was established. During that period, both Nepal and the United States played an active role, alongside India, in supporting Tibetan militancy. In fact, for many years it was the ancient kingdom of Mustang, in Nepal, that served as the true epicenter and safe haven for Tibetan combatants. ¹³⁸ By the end of that decade, however, China had succeeded in convincing Nepal to betray the Tibetan cause, while the United States had sacrificed its anticommunist freedom fighters on the altar of Nixonian rapprochement with China. 139 In the event of another conflict, India essentially would find itself conducting the bulk of its covert campaigns alone. Depending on the circumstances, one could envision the United States discreetly providing a modicum of intelligence support, but not much more. Even if SFF task forces are inserted successfully, it might prove extremely challenging to sustain them, given the contested nature of the aerial environment over Tibet. Investment in systems such as the U.S.-developed Joint Precision Airdrop System, which can be dropped from a height of 25,000 feet, might alleviate this challenge. 140

Another key difference lies in the extent of China's surveillance and control over Tibet, which is far greater today than it was in 1962. Since the 2008 disturbances, in particular, Beijing has improved vastly its internal security apparatus in the TAR. New, highly sophisticated frontier-monitoring systems, incorporating electro-optical devices, radars, unmanned aircraft, and tools for imagery

analysis, have been put in place. Tibetan communities in India have registered a sharp drop in the number of incoming refugees—many who seek to depart are apprehended or shot while attempting to cross the border. 141 China recently enacted a draconian new counterterror law that further curtails Tibetans' freedom of movement and expression, and Chinese intelligence officers have deeply penetrated Tibetan monasteries and refugee networks. 142 Surveillance of neighborhoods has been amplified via the establishment of an intricate "grid system" and facilitated by the forced sedentarization of historically nomadic populations. 143 PAP forces, often formed from recently decommissioned PLA troops, have grown ever more numerous in Tibet and increasingly militarized, incorporating heliborne rapid-reaction units and equipped with armored vehicles. 144 Their presence, in addition to the PLA element already stationed in the TAR, could present a formidable challenge to Indian special warfare efforts. Moreover, it remains unclear whether the majority of the younger generation of Tibetans living on the Indian side of the border would be as willing to take up arms alongside their brethren as some have claimed. 145 Finally, as we shall see in greater depth in a later section, India's political leaders might be reticent to deploy the SFF in such a role, either because they viewed such a step as too escalatory or because it would lead to protraction, thus impeding war termination.

THE CHALLENGES TO IMPLEMENTING A STRATEGY OF PROACTIVE DEFENSE

Technical and Operational Hurdles

The first and most immediate set of hurdles resides in the technical and operational domain. Numerous observers, both within and outside India's special operations community, have drawn attention to chronic shortfalls in essential equipment, such as parachutes, night vision devices, communications devices, laser designators, and high-altitude clothing. 146 U.S. SOFs, having observed their Indian counterparts during training exercises, noticed that in many cases Indian paratroopers preferred to discard their expensive Israeli-designed Tavor rifles which are ill suited for Himalayan conditions and occasionally jam—in favor of the more reliable AK-47. 147

Another common complaint was that the SOFs had expanded too rapidly in size and in an ad hoc manner, without the benefit of careful, deliberate planning. 148 As a result, noted one colonel, in numerous cases during the raising of Para SF battalions existing equipment sourced from regular infantry regiments was distributed among the new units, resulting in their soldiers having to make do with inferior equipment. 149 In some cases, observers pointed to seemingly prosaic concerns as having genuine security implications. One example is the continued absence of aluminum, belt-attachable water bottles. Indian Para SF personnel often are compelled to carry large, heavy, plastic bottles of potable water in their rucksacks. When removed, these reflect very far out into the sunshine and off the snow—running the risk of revealing hidden positions. 150

Another issue concerns officer manpower, especially declining retention rates. Most Para SF units suffer from an estimated officer shortfall of 25–30 percent. ¹⁵¹ As one brigadier general stationed at IA headquarters noted, a growing number of Indian SOF officers are leaving the service to pursue more-lucrative careers in the private sector, where they often specialize in VIP protection. ¹⁵² It is important to note, in passing, that this problem is not specific to India; the United States faces a similar challenge. 153 The net result, however, is that India's SOFs are increasingly "bottom heavy," with a large number of fresh, new recruits but too few experienced officers and noncommissioned officers.

This overly rapid expansion also has exposed certain deficiencies in India's SOF training infrastructure. SOF officers warned in 2010 that it would take "many years" for the IA's Special Forces Training School (SFTS)—located in Nahan, 300 km to the north of Delhi-to catch up with the expanded force's new requirements.¹⁵⁴ Foreign observers note that the SFTS still lacks key facilities, such as vertical wind tunnels, next-generation simulators, and sufficient firing ranges. 155

Questions also were raised about the nature of certain aspects of the selection and training processes, which often are delegated to each individual battalion, and how to ensure consistent standards. Indian SOF officers, however, were of the view that this more-decentralized system had its advantages, as it allowed units to be highly specialized in certain niche competencies and to have "excellent area and terrain specialization."156

Organizational and Doctrinal Challenges

Perhaps the greatest set of challenges lies in the organizational domain. Absent a restructuring of India's special operations capability around a Joint Special Operations Command (JSOC), many of the more chronic problems affecting training, procurement, and information sharing most likely will endure. 157 Indian strategic commentators long have called for the creation of a JSOC, via which India's community of special operators could be provided with "fully fused" informational support from the nation's notoriously factionalized intelligence agencies. 158 While the formation of India's Defence Intelligence Agency in 2002, following the recommendations of the Kargil Review Committee, has led to better integration among the services' respective intelligence wings, reportedly there is still much scope for improvement. 159 This would necessitate the permanent deputation of civilian intelligence officers drawn from all the relevant agencies, including the Intelligence Bureau, which, while theoretically domestically oriented, plays an important role along certain tracts of the Sino-Indian border. Optimizing

the functionality of India's (future) ISOC also would require providing it with its own budget, requirements-validation process, and streamlined acquisition procedures. This would enable it to fast-track much-needed items, such as night vision devices and parachutes, bypassing the traditionally cumbersome procurement process of the Indian Ministry of Defence (MOD).

The existence of a JSOC also would bring about greater strategic and doctrinal clarity, along with more institutionalized joint training. For the time being, India's Para SFs have no organic air wing, and the IA air arm as yet does not possess its own ground-attack capability. After years of bitter wrangling among services, the MOD arbitrated in favor of the IAF retaining control, for the time being, over newly acquired heliborne platforms critical for special operations and airborne assault, such as the Apaches and Chinooks purchased from the United States. 160 While this is projected to change in the near future, the process points to the persistent dysfunctionality of interservice relations, which could affect the effectiveness and reactivity of Indian SOFs in the event of a crisis. With each service striving to create its own SOF unit, there also has been a certain amount of duplication in terms of core competencies and a relative absence of profound reflection on what some of these newly formed units could bring in terms of added value—this despite the existence since 2008 of a (classified) Indian Joint Doctrine for Special Operations. 161 The IAF's Garud, for example, has yet truly to evolve beyond its primary objective of protecting air bases and installations, a task that could be relegated to a force already designed for such a purpose: the paramilitary Central Industrial Security Force. There is a broad consensus within India's SOF community that where the Garud truly needs to focus its efforts is on developing a core of highly trained JTACs and forward-deployed air combatcontrol teams. 162 Another core objective would be to specialize in the emergency extraction of downed IAF pilots or groups of SFFs or Para SFs isolated behind enemy lines. 163 Yet, according to most interviewees, until now not much progress has been made on these fronts.

When Prime Minister Narendra Modi came into office in May 2014, there was hope in a few quarters that some long-advocated defense reforms, such as the creation of a chief of defense staff, an aerospace command, a cyber command, and a JSOC, finally would materialize. As time has gone by, hopes of sudden and major reform under this government—whether in the realm of economy or defense—have begun to dwindle. This does not mean, however, that there is no movement.¹⁶⁴ The current defense minister, Manohar Parrikar, reportedly has sought inspiration from both past U.S. defense reforms and Israel's ongoing efforts to fashion a "Depth Corps Force" that would operate in symbiosis with a new Israeli JSOC. 165 During a visit to U.S. Pacific Command in early December 2015, Parrikar allegedly also sought details on the conduct of U.S. Air Force special operations, with the goal of applying these insights to the future development of the Garud. 166

Some Indian interviewees noted, rather pessimistically, that major organizational reform might occur only in the wake of some form of catastrophe. This was the case, for example, for the United States, which created its Special Operations Command in the wake of the humiliating debacle of 1980's Operation EAGLE CLAW. 167

Special Operations and the Question of Political Sponsorship

In his detailed, empirical study of the efficacy of past special operations, Colin Gray points to the fundamental importance of "permissive domestic conditions, and a tolerant political and strategic culture." ¹⁶⁸ Owing to the unorthodox nature of SOF tactics and the politically sensitive missions with which SOFs are often entrusted, their use implies a certain risk tolerance on the part of political decision makers.

In 2015, the Indian government signed off on a much-publicized, and relatively successful, Para SF raid into Myanmar. That operation, however, was undertaken against lightly armed insurgents and with the acquiescence of the Myanmar government. 169 Most recently, IA SOFs allegedly carried out punitive strikes against "terror launchpads" in Pakistan-occupied Kashmir, in response to a bloody terrorist attack on Indian soil. 170 At the time of this writing, the specifics of the operation remain shrouded in uncertainty and subject to heated speculation, particularly in the Indian and Pakistani press. 171 According to some of this author's more-reliable sources, the operation was conducted by two units of Para SFs (from the 4th and 9th Battalions), operating under cover of artillery fire. Heliborne operations were limited to the drop-off and pickup points, from which the SOFs proceeded on foot. Ghatak platoons drawn from regular army units provided rear-area security, helping to ensure the safe extraction of the Para SFs once their direct-action mission was completed. 172 If this account is accurate—and it may prove impossible to verify completely—it would not be the first time India (or Pakistan) has deployed SOFs for shallow thrusts across the Indo-Pakistani Line of Control. 173 It is important to stress, however, the inherent differences from employing SOFs in some of the China-related contingencies discussed in this paper. Deploying Indian SOF teams for more-prolonged missions, deeper into contested territory, and against a far more capable adversary would require a much greater willingness to embrace risk, friction, and uncertainty.¹⁷⁴

On a broader level, successful covert action hinges on a clear intellectual understanding of the strategic value of special operations rather than a fixation on short-term tactical gains. 175 A previous section demonstrated that Indian security managers have yet to develop a truly joint vision for special operations. Within

the Indian media, for their part, commentary on SOF-related issues all too often is confined narrowly to CT-related issues. A common refrain among Indian Para SF officers is that India's political leaders and public view special forces as "little more than glorified infantry," and through a narrow tactical lens rather than strategically. 176 What such statements imply is that SOFs frequently are reduced to functioning as heavily armed substitutes for standard units, or are viewed as shock troops—ancillary forces whose role is to support a wider war effort. While there is certainly a danger in overly fetishizing special operations and in neglecting to integrate SOFs properly with conventional forces, there also are costs to failing to appreciate the uniqueness of SOF attributes. 177 As one U.S. study from the 1990s eloquently articulated, "A military structured for linear, attritional warfare gains little leverage from SOF operations. It correspondingly sees little value in SOFs and would prefer that SOF assets be distributed broadly to the force as a whole. By contrast, a force structured for thrusting along fault lines will use SOF units to gain leverage by initiating the breach and by generating chaos in the enemy's rear."178

A common criticism levied at the IA is precisely that it is structured for "linear, attritional warfare," not for "thrusting along fault lines." Well-known South Asianists have described India's military strategy as one of restraint and as suffering from an absence of strategic initiative. 180 While there may be some truth to these characterizations, they are also far too sweeping.

Indeed, India's very unique model of civil-military dysfunction, somewhat paradoxically, has provided the armed services with a lot of leeway in the pursuit of operational planning. 181 As evidenced in the section detailing India's strategy of "offensive area denial" vis-à-vis its trans-Himalayan neighbor, the IA concept of operations for a LAC-related contingency is far from passive or reactive. To the contrary, it places a strong emphasis on regaining the initiative rapidly, on conducting surgical strikes deep within the Chinese interior, and on horizontal escalation across multiple sections of the border.

The question, however, is whether India's political leadership would be willing to sign off on these plans. Even though India's current government seems intent on signaling that it is less reticent to use force and risk escalation, much would depend on the circumstances of the conflict and the exact nature of Chinese aggression. A number of important questions remain open. Would India's politicians be willing to accede to IA requests to extend the army's operational ambit far beyond the LAC? Would airpower be employed for standoff strikes across the border, or would it remain confined to the Indian side, as during the Kargil War?¹⁸² If some of the priority targets are communication and transportation nodes within the TAR and the PLAAF and PLARF have not yet entered the fray, would India consider it more judicious to employ ground-based, deniable SOFs rather than initiating a cycle of vertical escalation via targeted missile strikes and the use of air-launched ordnance?

Perhaps most importantly, would India's political leadership draw on its Tibet "trump card" and exercise the special warfare option? New Delhi may be leery to do so, for several reasons. First, it may fear a Chinese counterescalation in India's northeast, with all the attendant implications for India's long-term stability and its ability to secure the narrow Siliguri corridor that connects its northeastern states to the Indian subcontinent. 183 Second, such a move could encounter hostility from the current Tibetan government in exile, which officially has renounced violence and historically has perceived Tibetan guerrilla movements as competing power structures within a heavily factionalized refugee community. 184 Furthermore, within some segments of Indian society, sentiments toward the Tibetan community occasionally have verged on the hostile, and support for greater Tibetan autonomy has not been uniformly robust. 185 While the Modi government has been more overtly supportive of the Tibetan cause than its predecessor, this may not always be the case. Indian security managers may be unwilling to stoke the flames of militancy for fear of inadvertently redirecting Tibetan nationalism and thereby spawning yet another form of separatist movement on their own soil.

From a purely operational standpoint, an unconventional warfare campaign would no doubt yield precious tactical dividends, by increasing Chinese rear-area anxiety and compelling the PLA to tie down large numbers of troops in surveillance and garrison duties. If India's goal in the event of conflict, however, is to conclude hostilities rapidly on favorable terms, such a move could prove counterproductive, as it inevitably would lead to protraction, along with widespread suffering among the Tibetan people, thus impeding war termination. In effect, the wisest posture might be to maintain such a capability as a form of deterrent and as part of a broader competitive strategy, and to resort to special warfare only in the event of significant escalation on the part of China. 186

The LAC constitutes the longest disputed land border in the world. For close to six decades, the lack of resolution has served as a vivid reminder of the tensions that linger at the heart of the Sino-Indian relationship. For New Delhi, the preservation of local superiority along the Himalayan belt is of paramount importance and continues to inform its defense planning and force-structure plans.

This article has summarized the various correlations of military force along the Sino-Indian border and has charted the changes in New Delhi's operational concepts and attitudes toward territorial defense. While Indian planners have moved toward adopting a more-offensive form of area denial, they continue to

rely, for the most part, on conventional forces that could be overcome or circumvented in the event of a fast-moving, localized, and limited border confrontation launched from higher elevations. Taking into account the rugged nature of the terrain and the continued paucity of infrastructure, a case has been made here for a more reactive, distributed, and mobile force structure and for greater reliance on special forces, working in tandem with locally raised battalions of scouts.

Despite the existence of a large number of SOFs, along with plans for further expansion, India has yet to articulate their role clearly and continues to view such units as ancillaries to conventional troops rather than as potential force multipliers. While warning against an overreliance on special operators, this article has laid out the operational benefits to be accrued from their tailored employment in a number of potential Sino-Indian contingencies, ranging across a broad spectrum of conflict.

Before India is able to envisage such ambitiously minded concepts of operations, however, steps will need to be taken and reforms will need to be enacted. These extend well beyond issues of equipment, training, and procurement; defense management, political vision, and doctrinal definition will need to be addressed. The long-discussed creation of a triservice JSOC would constitute an important step forward. Perhaps most importantly, India's security managers will need to embrace an operational philosophy that places a greater emphasis on rapidly regaining the initiative and on high-end asymmetric warfare. In short, their mode of thinking may need to become more Chinese.

NOTES

The author is grateful to Ashley Tellis; Toshi Yoshihara; Arun Sahgal; Ajai Shukla; Maj. Barret Bradstreet, USMC; Srinath Raghavan; Maj. Steve Ferenzi, USAR, SOF; three anonymous reviewers; and the participants at the 2016 workshop on Indian security at the Center for the Advanced Study of India, University of Pennsylvania, for their helpful comments on an earlier version of this article. The author is also deeply indebted to the Indian military and intelligence officials, both serving and retired, who agreed to be interviewed for the purposes of this article. Ryan Boone, Akash Goud, and Soumya Tiwari all provided stellar research assistance.

1. Some analysts have referred to this relationship as one of "cold peace." Jeff M. Smith, Cold Peace: China-India Rivalry in the Twenty-First Century (Lanham, MD: Lexington

- Books, 2013). On the history of Sino-Indian relations, see John W. Garver, Protracted Contest: Sino-Indian Rivalry in the Twentieth Century (Seattle: Univ. of Washington Press, 2002). See also Srinath Raghavan, War and Peace in Modern India: A Strategic History of the Nehru Years (New Delhi: Permanent Black, 2010), pp. 227-308.
- 2. Gaurav Kampani, China-India Nuclear Rivalry in the "Second Nuclear Age" (Oslo: Norwegian Institute for Defence Studies, 2014), available at brage.bibsys.no/; Manjeet S. Pardesi, "China's Nuclear Forces and Their Significance to India," Nonproliferation Review 21, nos. 3-4 (2014), pp. 337-55.
- 3. C. Raja Mohan, Samudra Manthan: Sino-Indian Rivalry in the Indo-Pacific (Washington, DC: Carnegie Endowment for International Peace, 2012).

- 4. For an overview of various Sino-Indian conflict scenarios, see Daniel S. Markey, Armed Confrontation between China and India, Contingency Planning Memorandum 27 (New York: Council on Foreign Relations, 2015), available at www.cfr.org/.
- 5. Subhash Kapila, China-India Military Confrontation: Strategic Reality Check, Paper 5806 (New Delhi: South Asia Analysis Group, 2014), available at www.southasiaanalysis .org/.
- 6. See Ashley J. Tellis, Troubles, They Come in Battalions: The Manifold Travails of the Indian Air Force (Washington, DC: Carnegie Endowment for International Peace, 2016), available at carnegieendowment.org/. See also Rahul Bedi, "IAF's Depleting Assets Preclude Two-Front War Option," IHS Jane's Defence Weekly, 17 March 2016.
- 7. See "Trials and Tribulations: Recounting India's Artillery Woes," IHS Jane's International Defence Review, 13 June 2013. Whereas China possesses more than 2,170 self-propelled howitzers, India only has about 715 antiquated mountain guns and self-propelled howitzers left in its inventory. The quantitative gap is even more stark with regard to multiple-launch rocket systems (MLRSs). India only fields around two hundred MLRSs, whereas China possesses around 1,700. Author's calculations from data compiled in "India-Army," IHS Jane's World Armies, updated 5 May 2016, and "China-Army," IHS Jane's World Armies, updated 9 February 2016, janes.ihs.com/.
- 8. See Ashley J. Tellis et al., Measuring National Power in the Postindustrial Age (Santa Monica, CA: RAND, 2000), p. 143.
- 9. A. W. Marshall, Problems of Estimating Military Power (Santa Monica, CA: RAND, 1966).
- 10. M. Taylor Fravel, "Securing Borders: China's Doctrine and Force Structure for Frontier Defense," Journal of Strategic Studies 30, nos. 4-5 (August-October 2007), pp. 705-37.
- 11. Ben Blanchard, "China to Build Second Rail Line into Tibet," Reuters, 4 March 2016, available at www.reuters.com/.
- 12. Sarah McDowall et al., "Himalayan Discord: China and India's Border Predicament," IHS Jane's Intelligence Review, 29 January 2013.

- 13. On artillery use for reverse-slope defense, see I. M. Datz, Military Operations under Special Conditions of Terrain and Weather (New Delhi: Lancer, 2004), pp. 500-505.
- 14. Since 1984, India and Pakistan have engaged sporadically in bouts of low-intensity combat for control of the Siachen Glacier in the eastern Karakoram Mountains, at heights of over 6,440 meters (20,997 feet). The vast majority of casualties on both sides have been attributed to frostbite and exposure. Ravi Baghel and Marcus Nüsser, "Securing the Heights: The Vertical Dimension of the Siachen Conflict between India and Pakistan in the Eastern Karakoram," Political Geography 48 (September 2015), pp. 24-38.
- 15. Marcus P. Acosta, High Altitude Warfare: The Kargil Conflict and the Future (Monterey, CA: Naval Postgraduate School, 2003), available at calhoun.nps.edu/. See also Lester W. Grau and Hernán Vázquez [Lt. Col.], Ground Combat at High Altitude (Fort Leavenworth, KS: Foreign Military Studies Office, 2009).
- 16. Anil R. Pustam, "Mountain Air Support Demands Special Equipment and Training," U.S. Naval Institute Proceedings 126/9/1,171 (September 2000), p. 71.
- 17. Sudha Ramachandran, "India's Worrying Border Infrastructure Deficit," Diplomat, 19 June 2014, available at the diplomat.com/.
- 18. National Seminar on China: Focus on Tibet, Seminar Report (New Delhi: Centre for Land Warfare Studies, 2015), available at www .claws.in/.
- 19. "China's Military Regrouped into Five PLA Theater Commands," Xinhua, 1 February 2016, available at news.xinhuanet.com/.
- 20. Ajai Shukla, interview by author, 13 May 2016. On the impact of China's military reforms, see Phillip C. Saunders and Joel Wuthnow, China's Goldwater-Nichols? Assessing PLA Organizational Reforms (Washington, DC: National Defense Univ. Press, 2016), available at inss.ndu.edu/.
- 21. China's ambush of Soviet troops on Zhenbao, in 1969, is viewed in a similar light. See Michael S. Gerson et al., The Sino-Soviet Border Conflict: Deterrence, Escalation, and the Threat of Nuclear War in 1969 (Arlington, VA: Center for Naval Analyses, 2010), available at www.cna.org/. On China's concept of

- "self-defensive counterattack," see Andrew Scobell, China's Use of Military Force: Beyond the Great Wall and the Long March (New York: Cambridge Univ. Press, 2003), pp. 30-32, and Mark Burles and Abram N. Shulsky, Patterns in China's Use of Force: Evidence from History and Doctrinal Writings (Santa Monica, CA: RAND, 2000), available at www .rand.org/.
- 22. On the Chinese concept of "war control," see Forrest E. Morgan et al., Dangerous Thresholds: Managing Escalation in the 21st Century (Santa Monica, CA: RAND, 2008), pp. 52-55.
- 23. On China's war-zone strategy, see Nan Li, "The PLA's Evolving Campaign Doctrine and Strategies," chap. 8 in The People's Liberation Army in the Information Age, ed. James C. Mulvenon and Richard H. Yang (Santa Monica, CA: RAND, 1999).

24. Ibid.

- 25. Dennis J. Blasko, "Technology Determines Tactics': The Relationship between Technology and Doctrine in Chinese Military Thinking," Journal of Strategic Studies 34, no. 3 (2011), pp. 355-81; M. Taylor Fravel, "China's New Military Strategy: 'Winning Informationized Local Wars," Jamestown Foundation China Brief 15, no. 13 (2 July 2015), available at jamestown.org/.
- 26. On the PLA's intensified focus on joint training and rapid mobilization, see Developments in China's Military Force Projection and Expeditionary Capabilities: Hearing Before the U.S.-China Economic and Security Review Commission, 114th Cong. (21 January 2016) (testimony of Mark R. Cozad, "PLA Joint Training and Implications for Future Expeditionary Capabilities"). On the reorientation of the Chinese army from theater defense to transregional mobility, see Dennis J. Blasko, "The PLA: Mission, Equipment, and Contingent War Plans of China's Land-Based Forces," in The Routledge Handbook of Chinese Security, ed. Lowell Dittmer and Maochun Yu (New York: Routledge, 2016), pp. 257-60.
- 27. Larry M. Wortzel, "PLA Contingency Planning and the Case of India," in The People's Liberation Army and Contingency Planning in China, ed. Andrew Scobell et al. (Washington, DC: National Defense Univ. Press, 2015), available at ndupress.ndu.edu/.

- 28. See You Ji, China's Military Transformation (Cambridge, U.K.: Polity, 2016), pp. 154-56, and Liu Yongxin, "The Guidance for Defensive Campaigns in the Border Regions in the Context of Armed Conflicts Elsewhere," Military Art Journal, no. 3 (2003), p. 37.
- 29. Dennis J. Blasko, "Chinese Special Operations Forces: Not like 'Back at Bragg," War on the Rocks, 1 January 2015, warontherocks.com/; Oriana Skylar Mastro, "A Global Expeditionary People's Liberation Army: 2025-2030," in The Chinese People's Liberation Army in 2025. ed. Roy Kamphausen and David Lai (Carlisle, PA: U.S. Army War College Press, 2015), pp. 207 - 43.
- 30. A retired Para SF general, interview by author, 12 June 2015.
- 31. "China: Special Forces (Land)," Jane's Amphibious and Special Forces, 2 February 2016.
- 32. Ibid.
- 33. Richard D. Fisher Jr., "China's Y-20 May Enter Service in 2016," IHS Jane's Defence Weekly, 1
- 34. "China: Procurement 2015," IHS Jane's, 23 November 2015, janes.ihs.com/.
- 35. Matheswaran [Air Marshal, IAF (Ret.)], to author, 11 June 2015, privately held.
- 36. Gardiner Harris and Edward Wong, "Where China Meets India in a High-Altitude Desert, Push Comes to Shove," New York Times, 2 May 2013, available at www.nytimes.com/.
- 37. Niharika Mandhana, "China's President Talks Trade in India as Troops Face Off at Border," Wall Street Journal, 18 September 2014, available at www.wsj.com/.
- 38. "Ladakh Again: India, China in Standoff over Surveillance Structure by PLA," Indian Express, 13 September 2015, available at indianexpress.com/; Arunava Chatterjee, "India Rejects China Claim of PLA Not Crossing Border, Says Transgression Has Increased," India Today, 15 March 2016, available at indiatoday.intoday.in/.
- 39. Garver, Protracted Contest, pp. 98-99; Arun Sahgal, "China's Military Modernization: Responses from India," in Strategic Asia 2012-13: China's Military Challenge, ed. Ashley J. Tellis and Travis Tanner (Seattle, WA: National Bureau of Asian Research, 2012), p. 285.

- Shishir Gupta, The Himalayan Faceoff: Chinese Assertion and the Indian Riposte (New Delhi: Hachette India, 2014), chap. 7.
- 41. As Klaus Knorr has noted, attackers who succeed in leveraging the effects of strategic surprise do not require superior forces to prevail. Klaus E. Knorr, "Lessons for Statecraft," in *Strategic Military Surprise: Incentives and Opportunities*, ed. Klaus E. Knorr and Patrick M. Morgan (New Brunswick, NJ: Transaction Books, 1983), pp. 252–53.
- 42. Sunil Khilnani et al., Nonalignment 2.0: A Foreign and Strategic Policy for India in the Twenty-First Century (New Delhi: Centre for Policy Research, 2012), p. 40.
- 43. Chinese leaders were surprised by the sharpness of India's turn to the United States and United Kingdom for assistance during the conflict. Central Intelligence Agency, *The Sino-Indian Border Dispute, Section 3:* 1961–62 (Washington, DC: 1964), pp. 62–64.
- 44. See W. Andrew Terrill, Escalation and Intrawar Deterrence during Limited Wars in the Middle East (Carlisle, PA: Army War College, 2009), available at www .strategicstudiesinstitute.army.mil/.
- 45. Recently retired Indian intelligence official, interview by author, 11 December 2015.
- 46. Sushant Singh, "Border Roads Organisation: Tight Funds, Uphill Goals in a Tough Terrain," *Indian Express*, 18 May 2016, available at indianexpress.com/.
- 47. Sushant Singh, "Borders without Railways: The Missing Strategic Link," *Indian Express*, 18 May 2016, available at indianexpress.com/.
- 48. On the distinction between deterrence by denial and deterrence by punishment, see Glenn H. Snyder, *Deterrence by Denial and Punishment* (Princeton, NJ: Woodrow Wilson School of Public and International Affairs, 1959).
- A. K. Lal [Maj. Gen., IA (Ret.)], Transformation of the Indian Armed Forces 2025: Enhancing India's Defence (New Delhi: VIJ Books, 2012), pp. 119–22; Vinod Anand, "Review of the Indian Army Doctrine: Dealing with Two Fronts," CLAWS Journal (Summer 2010), pp. 257–64.
- 50. Hans Rothfels, "Clausewitz," in Makers of Modern Strategy: Machiavelli to Hitler, ed. Edward Mead Earle, Gordon A. Craig, and Felix

- Gilbert (London: Oxford Univ. Press, 1941), p. 111.
- 51. Anil Raman [Col., IA], interview by author, 17 June 2015.
- 52. Vivek Chadha [Col., IA], interview by author, 15 June 2015.
- 53. In the event of hostilities, however, Indian officials may be unwilling to "reactivate" the Sikkim front, as it is one of the zones along the border whose boundaries have been clearly delimited. The author is grateful to Srinath Raghavan for this point.
- 54. Ajai Shukla, "In a First, India Tank Brigades to Defend China Border," *Business Standard*, 17 September 2012, available at www.business -standard.com/. There are considerable challenges, however, innate to tank operations at high altitudes. Indian armored troops stationed in Ladakh thus have had to procure additional additives and lubricants to prevent their tank fuel from freezing overnight. See Rahul Bedi, "India Deploys 100 T-72 Tanks along Disputed Border with China," *IHS Jane's Defence Weekly*, 26 July 2015.
- 55. Sahgal, "China's Military Modernization," p. 293; Mandip Singh, Critical Assessment of China's Vulnerabilities in Tibet, IDSA Occasional Paper 30 (New Delhi: Institute for Defence Studies and Analyses, 2013), available at www.idsa.in/.
- 56. The Indian Army nearly doubled in size in the decade following its defeat, going from 458,000 to 825,000 troops. Steven I. Wilkinson, Army and Nation: The Military and Indian Democracy since Independence (Cambridge, MA: Harvard Univ. Press, 2015), chap. 4. There is a vast body of literature on military organizations' resistance to change and innovation. For a seminal study, see Stephen Peter Rosen, Winning the Next War: Innovation and the Modern Military (Ithaca, NY: Cornell Univ. Press, 1991). For an overview of the literature, see Adam Grissom, "The Future of Military Innovation Studies," Journal of Strategic Studies 29, no. 5 (2006), pp. 905-34. For an Indian perspective, see Vivek Chadha, "An Assessment of Organisational Change in the Indian Army," Journal of Defence Studies 9, no. 4 (October-December 2015), pp. 21-48.
- 57. The ITBP, which has a total sanctioned strength of 89,430, currently mans 169 border

- outposts all along the LAC. See Government of India, Ministry of Home Affairs Annual Report 2015-2016 (New Delhi: 2016), p. 175. On the equipment and morale issues plaguing the ITBP, see Dilip Kumar Mekala, "Close to the Clouds: ITBP Jawans Endure Harsh Weather and Modest Facilities to Guard Our Borders in the Mountains," Force (August 2015).
- 58. Multiple Indian Army officers, interviews by author, various dates.
- 59. For example, it is estimated that a large conventional force departing from Ranchi, in Jharkhand, would take over twenty-seven hours to reach Tawang. Ibid. The Indian Parliament's Standing Committee on Defence noted, with regard to Tawang, "While our neighbouring countries can reach borders within two or three hours, our Army takes more than a day to reach there." Lok Sabha Secretariat, Standing Committee on Defence (2015–2016): Fifteenth Report (New Delhi: 2016), p. 24.
- 60. This would also be the case for PLA reinforcements surged via high-speed rail. However, and in contrast to India, China has built a number of oxygen-rich hyperbaric chambers to acclimatize its follow-on forces more rapidly. See Xinhua, "China Starts Sichuan-Tibet Grid Construction," China Daily, 19 March 2014, available at www .chinadaily.com.cn/.
- 61. Lester W. Grau [Lt. Col., USA (Ret.)] and Dr. William A. Jorgensen, "Medical Implications of High Altitude Combat," U.S. Army Medical Department Journal (April-June 2003), pp. 2-7.
- 62. Ibid.
- 63. Rajat Pandit, "Fund Crunch Hits Army's New Strike Corps," Times of India, 16 April 2015, available at timesofindia.indiatimes.com/.
- 64. Vijay Mohan, "Raising of Mountain Strike Corps Depletes Army's War Reserves," Tribune, 24 December 2014, available at www .tribuneindia.com/.
- 65. Sujan Dutta, "China Strike Force Back on Course," Telegraph, 14 January 2016, available at www.telegraphindia.com/.
- 66. Personnel costs increasingly have dominated the army's budget, rising from approximately 69 percent in 2013 to 72 percent in 2016. Author's calculations, derived from data compiled in IHS Jane's Defence Budgets: India

- Defence Budget, updated 21 January 2016, janes.ihs.com/. See also "Increases in Military Personnel Spending Elevate India to World's Fourth Largest Defense Spending," IHS Jane's Aerospace, Defense and Security, 30 March 2016.
- 67. See U.S. Army Dept., Infantry Small-Unit Mountain Operations, FM 3-97.6 (Washington, DC: Army Headquarters, 2000), chap. 4.
- 68. On the importance of considering the impact of decentralized operations when conducting mountain operations, see ibid., chap. 2.
- 69. Hervé de Courrèges, Pierre-Joseph Givre, and Nicolas Le Nen, Guerre en Montagne: Renouveau Tactique (Paris: Economica, 2006), pp. 24-27. See also Cyrille Becker [Col.], "Actualité des Principes de la Guerre en Montagne," in "Guerre en Montagne: Les Défis de la Verticalité," supplement, Défense et Sécurité Internationale, hors-série no. 46 (February-March 2016).
- 70. For an overview of the role of mountain infantry, see Jon D. Greer [Maj.], Mountain Infantry—Is There a Need? (Fort Leavenworth, KS: U.S. Army Command and General Staff College, 1988), available at www.dtic.mil/.
- 71. See Kevin Christie [Col.], "Synchronizing Chaos: Command and Control of Special Operations and Conventional Forces in Shared Battlespace" (paper, Joint Military Operations Department, Naval War College, Newport, RI, 2006), available at www.researchgate.net/, and Linda Robinson, One Hundred Victories: Special Ops and the Future of American Warfare (New York: PublicAffairs, 2013), pp. 261-69.
- 72. "India: Special Operation Forces," IHS Jane's Amphibious and Special Forces, 12 June 2015; The Military Balance 2016 (London: International Institute for Strategic Studies, 2016), p. 250. India plans to add another two battalions of Para SFs by 2018. See Rajat Pandit, "Para-Special Forces Get Two New Battalions," Times of India, 17 August 2014, available at timesofindia.indiatimes.com/.
- 73. "10 More Garud Squadrons, Electric Fences to Be Put Up," Business Standard, 2 February 2016, available at www.business-standard.com/.
- 74. The SFF is also occasionally designated under the moniker Establishment 22, chosen as an homage to the 22nd Mountain Regiment, the

REHMAN 137

- regiment of the SFF's first commander, Sujan Singh Uban, during World War II.
- 75. For a discussion of the formation of the SFF (with U.S. assistance) following India's defeat in 1962, see John Kenneth Knaus, Orphans of the Cold War: America and the Tibetan Struggle for Survival (New York: PublicAffairs, 1999), pp. 255-70; Carole McGranahan, Arrested Histories: Tibet, the CIA and Memories of a Forgotten War (Durham, NC: Duke Univ. Press, 2010), pp. 155-70; Kenneth Conboy and James Morrison, The CIA's Secret War in Tibet (Lawrence: Univ. Press of Kansas, 2002), pp. 184-90; and Gyalo Thondup's personal recollections in Gyalo Thondup and Anne F. Thurston, The Noodle Maker of Kalimpong: The Untold Story of My Struggle for Tibet (New York: PublicAffairs, 2015), pp.
- 76. Special warfare can be defined as "special operations forces conducting combinations of unconventional warfare, foreign internal defense, and/or counter-insurgency through and with indigenous forces and personnel." See U.S. Army Dept., Special Operations, U.S. Army Doctrine Publication 3-05 (Washington, DC: U.S. Army Headquarters, 2012).
- 77. Direct action refers to "short-duration strikes and other small-scale offensive actions conducted as a special operation in hostile, denied, or diplomatically sensitive environments and which employ specialized military capabilities to seize, destroy, capture, exploit, recover, or damage designated targets." See U.S. Defense Dept., Special Operations, JP 3-05 (Washington, DC: Joint Chiefs of Staff, 2011).
- 78. Michael J. Mazarr, Mastering the Gray Zone: Understanding a Changing Era of Conflict (Carlisle, PA: U.S. Army War College Press, 2015), available at www.strategicstudiesinstitute .army.mil/.
- 79. C. Christine Fair, Fighting to the End: The Pakistan Army's Way of War (New York: Oxford Univ. Press, 2014), pp. 226-61.
- 80. Philip Kapusta, "The Gray Zone," Special Warfare 28, no. 4 (October-December 2015), p. 23.
- 81. Eliot A. Cohen, Commandos and Politicians: Elite Military Units in Modern Democracies, Harvard Studies in International Affairs (Cambridge, MA: Harvard Univ. Center for

- International Affairs, 1978); Michael Noonan, "The Seductiveness of Special Ops?," War on the Rocks, 3 March 2015, warontherocks .com/.
- 82. See Japanese Ground Self-Defense Force, Roles: Ground Defense Force as in the National Defense Program Guidelines (Tokyo: 2014), available at www.mod.go.jp/.
- 83. See "Largest Baltic Special Forces Exercise Flaming Sword 2015 Culminates in Combined Operation," Baltic Times, 4 June 2015, available at www.baltictimes.com/.
- 84. According to some reports, India contemplated deploying Para SF units during the 2014 standoff in Chumar, but only as a backup force to regular troops. See Rahul Singh, "India Was Prepared to Use Special Forces during Chumar Faceoff," Hindustan Times, 5 October 2015, available at www .hindustantimes.com/.
- 85. Recently retired Indian intelligence official interview. This would not be without precedent: Chinese forces reportedly infiltrated parts of Arunachal Pradesh disguised as Monpa herders during the 1962 war.
- 86. IA officers, interviews by author, December 2015
- 87. Vijay Mohan, "IAF to Procure 8 Aerostat Radars," Tribune, 3 February 2016, available at www.tribuneindia.com/.
- 88. "Government Mulls Israel-Type Fencing along Pakistan Border," Indian Express, 24 January 2016, available at indianexpress.com/.
- 89. A recent pilot project to establish a camerabased surveillance network at high-altitude points near Pangong Lake in Ladakh failed, with the cameras succumbing to the harsh weather conditions. See Vijaita Singh, "Surveillance Camera Project Fails," Hindu, 23 October 2015, available at www.thehindu .com/.
- 90. See Lester W. Grau [Lt. Col., USA (Ret.)] and Jason Falivene [Lt., USMC], "Mountain Combat: Hard to Move, Hard to Shoot, Even Harder to Communicate," Journal of Slavic Military Studies 19 (2006), pp. 619-25.
- 91. For a history of the role of these peoples in the border areas and Sino-Indian relations. see Sulmaan Wasif Khan, Muslim, Trader, Nomad, Spy: China's Cold War and the People

- of the Tibetan Borderlands (Chapel Hill: Univ. of North Carolina Press, 2015).
- 92. See "Major Tribes," Govt. of Arunachal Pradesh, arunachalpradesh.gov.in/.
- 93. The BADP was launched in the early 1990s, with an emphasis on infrastructure development for border security forces. Its ambit subsequently was widened to incorporate socioeconomic elements such as health care and education. For a recent evaluation of its funding, initiatives, and impact, see Indian Planning Commission, Evaluation Study on Border Area Development Program, PEO Report 229 (New Delhi: 2015), available at niti.gov.in/.
- 94. During this author's travels in Sikkim, Himachal Pradesh, and Kashmir, locals frequently complained about the pervasive corruption and occasional brutality of the local police.
- 95. The Ladakh Scouts, or Snow Tigers, were raised in 1963, and most recently served with distinction during the 1999 Kargil War. See "Ladakh Scouts," Global Security, www .globalsecurity.org/. The Arunachal Scouts were formed in 2010. The first battalion was stationed in Rivang in the East Siang District of Arunachal in 2012, and a number of additional battalions have been approved since. The Sikkim Scouts began their recruitment in 2013 and, as of this writing, have raised two battalions. Rahul Bedi, "Indian Army Begins Recruitment for Sikkim Scouts Border Force," IHS Jane's Defence Weekly, 4 April 2013; "First Arunachal Scouts Battalion Arrives in State," Times of India, 2 May 2012, available at times ofindia.indiatimes.com/.
- 96. This would present certain parallels with the actions of the U.S. Civilian Irregular Defense Group, a CIA-run program during the Vietnam War that deployed Green Berets to help arm and train the Montagnards in South Vietnam's Central Highlands. The author is grateful to Toshi Yoshihara for pointing this out. See Thomas L. Ahern Jr., Vietnam Declassified: The CIA and Counterinsurgency (Lexington: Univ. Press of Kentucky, 2010).
- 97. See Doug Stanton, Horse Soldiers: The Extraordinary Story of a Band of U.S. Soldiers Who Rode to Victory in Afghanistan (New York: Scribner's, 2010).
- 98. The Indian Army's Ghatak commando units are not considered SOFs by most

- knowledgeable foreign observers, but rather more-heavily armed infantry teams, similar in some respects to U.S. Ranger weapons platoons. Foreign defense officials in New Delhi, interview by author, 10 December 2015.
- 99. Fabian strategy draws its name from the scorched-earth approach adopted by Roman general Quintus Fabius Maximus during the Punic Wars. See Adrian Goldsworthy, The Punic Wars (London: Cassell, 2001), p. 352, and James Holmes, "Fabian Strategies, Then and Now," War on the Rocks, 17 September 2015, warontherocks.com/.
- 100. Sukhdeep Sangwan [Brig.], Integrated Force Projection by India (New Delhi: VIJ Books, 2011), pp. 150-52; Deepak Sinha [Brig.], "Airborne and Special Forces: Reassessing Role, Tasks and Organisations," Indian Defence Review 30, no. 3 (July-September 2015), available at www.indiandefencereview
- 101. A serving Para SF colonel to author, 10 June 2015; a serving Para SF brigadier, interview by author, 11 December 2015.
- 102. Army Training Command, Indian Army Doctrine Part II: Conduct of Operations (Shimla, India: 2004), p. 12.
- 103. "China Deters India with Deployment of HQ-9 Air Defense Missile Systems Close to Kashmir," Missile Threat, 6 July 2015, available at missilethreat.com/; "China Rules Out Air Defense Zone along India Border," Times of India, 28 November 2013, available at timesofindia.indiatimes.com/.
- 104. Many of India's advanced landing grounds, particularly in the western sector, such as Fukche, are within range of PLA artillery.
- 105. Man Aman Singh Chhina, "Parliamentary Panel Concerned That Sukhoi-30 Fighters Have No Protective Shelters," Indian Express, 6 May 2015, available at indianexpress.com/.
- 106. "IAF's Mirage-2000 Lands on Yamuna Eway in Successful Runway Trial," Hindustan Times, 21 May 2015, available at www .hindustantimes.com/.
- 107. On virtual attrition, see John Stillion and Bryan Clark, What It Takes to Win: Succeeding in 21st Century Battle Network Competitions (Washington, DC: Center for Strategic and Budgetary Assessments, 2015), p. 4.

- 108. Tor Bukkvoll, "Military Innovation under Authoritarian Government: The Case of Russian Special Operations Forces," *Journal of Strategic Studies* 38, no. 5 (2015), p. 604; Mark Galeotti, *Spetsnaz: Russia's Special Forces* (Oxford, U.K.: Osprey, 2015), pp. 14–20.
- 109. Jim Thomas and Christopher Dougherty, Beyond the Ramparts: The Future of U.S. Special Operations Forces (Washington, DC: Center for Strategic and Budgetary Assessments, 2013), pp. 67–68.
- 110. See Indian Air Headquarters, Basic Doctrine of the Indian Air Force: 2012 (New Delhi: 2012), available at indianairforce.nic.in/.
- 111. Arun Sahgal [Brig., IA (Ret.)], to author, 10 August 2015.
- 112. Joseph K. Michalak [Lt. Col.], "The Need for the Next Special Operations Forces' Mobility Aircraft" (paper, Air Force Fellows, Air University, 2012), available at belfercenter.ksg .harvard.edu/.
- 113. John Gordon IV et al., Enhanced Army
 Airborne Forces: A New Joint Operational
 Capability (Santa Monica, CA: RAND, 2014);
 John T. Sophie [Maj.], China's Anti-access /
 Area Denial Capability and Its Implications for
 Special Operations Forces Air Mobility (Fort
 Leavenworth, KS: U.S. Army Command and
 General Staff College, 2014), available at oai
 .dtic.mil/.
- 114. India has expressed an interest in acquiring the CV-22 Osprey aircraft for its SOFs. Equipped with terrain-following radar and forward-looking infrared sensors that allow it to operate at low altitude in adverse weather conditions, this could provide a better means of insertion, although threats from China's IADS would still remain.
- 115. Samuel R. Bethel, "Sustainment in an Antiaccess / Area Denial Environment," *Army Sustainment* (January–February 2016), available at www.alu.army.mil/.
- 116. Sydney Freedberg Jr., "Charge of the Light Brigade: Army Seeks Air-Droppable Light Vehicles for Infantry," *Breaking Defense*, 8 June 2015, available at breakingdefense.com/.
- 117. "India Releases Updated RFI for Battlefield UAVs," IHS Jane's Defence Weekly, 27 August 2015.
- 118. For India's ambitious UAV procurement plans, see Vivek Raghuvanshi, "India

- Finalizes \$3B Blueprint for UAV Fleets," *Defense News*, 20 March 2016, available at www.defensenews.com/.
- 119. The author is grateful to Maj. Steve Ferenzi, USA, for this suggestion.
- 120. Dawa Norbu, "Tibet in Sino-Indian Relations:
 The Centrality of Marginality," *Asian Survey*37, no. 11 (November 1997), pp. 1078–95;
 Manjeet S. Pardesi, "Instability in Tibet and Sino-Indian Strategic Rivalry: Do Domestic Politics Matter?," in *Asian Rivalries: Conflict, Escalation, and Limitations on Two-Level Games*, ed. Sumit Ganguly and William R.
 Thompson (Stanford, CA: Stanford Univ. Press, 2011), pp. 79–118.
- 121. Garver, *Protracted Contest*, pp. 32–50; George N. Patterson, "China and Tibet: Background to the Revolt," *China Quarterly*, no. 1 (January–March 1960), pp. 87–102.
- 122. See Thondup and Thurston, *The Noodle Maker of Kalimpong*, pp. 223–24, and B. N. Mullik, *My Years with Nehru: The Chinese Betrayal* (Bombay, India: Allied, 1971).
- 123. This is masterfully detailed in Kenneth Conboy and CIA veteran James Morrison's book *The CIA's Secret War in Tibet*, pp. 184–230.
- 124. On the intellectual tradition of the Green Berets, see Charles M. Simpson and Robert B. Rheault, *Inside the Green Berets: The First Thirty Years; A History of the U.S. Army Special Forces* (New York: Presidio, 1983).
- 125. Mullik, My Years with Nehru, p. 571.
- 126. See Sujan S. Uban, *Phantoms of Chittagong: The "Fifth Army" in Bangladesh* (New Delhi: Allied, 1985), and Kalsang Rinchen
 (a Dharmsala-based journalist), director, *Tibetan Guerrillas in Exile* (2014), documentary film.
- 127. Amitava Sanyal, "The Curious Case of Establishment 22," *Hindustan Times*, 15 November 2009, available at www.hindustantimes.com/.
- 128. A former IA general to author, 6 June 2015.
- 129. Saikat Datta, "India's Secret Army of Tibetans without Parachutes; Kickbacks Suspected," DNA, 9 March 2012, available at www .dnaindia.com/.
- 130. Rahul Bedi, "India to Close Down Covert Aviation Reconnaissance Wing," IHS Jane's Defence Weekly, 21 September 2015.

- 131. Garver, Protracted Contest, pp. 94–96; Subir Bhaumik, "The External Linkages in Insurgency in India's Northeast," in Insurgency in Northeast India, ed. B. Pakem (New Delhi: Omsons, 1997), pp. 89-100; Bertil Lintner, Great Game East: India, China and the Struggle for Asia's Most Volatile Frontier (New Haven, CT: Yale Univ. Press, 2015).
- 132. Edmund Downie, "The Chinese Connection," FP, 25 June 2015, foreignpolicy.com/; Neeraj Chauhan, "Thai Arms Dealer to Reveal N-E Militants' China Link," Times of India, 9 December 2015, available at timesofindia .indiatimes.com/.
- 133. For an Indian take on Pakistan's involvement in India's northeast, see the memoirs of two former intelligence officers: Maloy Krishna Dhar, Open Secrets: The Explosive Memoirs of an Indian Intelligence Officer (New Delhi: Mainak Dhar, 2012), and B. Raman, The Kaoboys of R&AW: Down Memory Lane (New Delhi: Lancer, 2013), chap. 2.
- 134. Garver, Protracted Contest, p. 75.
- 135. Matheswaran to author, 11 June 2015.
- 136. A recently retired Para SF lieutenant general, interview by author, 10 June 2015.
- 137. Serving Para SF brigadier interview.
- 138. Carole McGranahan, "Tibet's Cold War: The CIA and the Chushi Gangdrug Resistance, 1956-1974," Journal of Cold War Studies 8, no. 3 (Summer 2006), pp. 102-30.
- 139. See Sanjay Upadhya, Nepal and the Geostrategic Rivalry between China and India (New York: Routledge, 2012), chap. 6. For a tragic account of the U.S. abandonment of its Tibetan proxies, see Mikel Dunham, Buddha's Warriors: The Story of the CIA-Backed Tibetan Freedom Fighters, the Chinese Communist Invasion, and the Ultimate Fall of Tibet (New York: TarcherPerigee, 2004), pp. 351-97.
- 140. Robert Haddick, Improving the Sustainment of SOF Distributed Operations in Access-Denied Environments, JSOU Report 16-2 (Tampa, FL: Joint Special Operations Univ., 2016), pp. 24 - 25.
- 141. "China Deploys Hi-Tech Surveillance System in Tibet, Other Borders," Defense World, 7 November 2015, www.defenseworld.net/.
- 142. Reuters, "China Wants to Turn Tibet's Buddhist Monasteries into Communist Party

- Propaganda Centers," Business Insider, 3 April 2015, www.businessinsider.com/.
- 143. "Security in Tibet: Grid Locked," Economist, 22 June 2013, available at www.economist .com/; Andrew Jacobs, "China Fences In Its Nomads, and an Ancient Life Withers," New York Times, 11 July 2015, available at www .nytimes.com/.
- 144. "China Upgrades Status of Tibet's Police Force to Military Body," Economic Times, 8 October 2014, available at articles.economictimes .indiatimes.com/; Xuezhi Guo, China's Security State: Philosophy, Evolution, and Politics (Cambridge, U.K.: Cambridge Univ. Press, 2012), pp. 234-36.
- 145. Mark Owen, "Preparing for the Future: Reassessing the Possibility of Violence Emanating from Tibetan Exile Communities in India," India Review 13, no. 2 (2014), pp. 149-69. Looking beyond armed resistance, there may also be benefits to India fomenting nonviolent protest movements, aiding them, or both. There is a growing literature on the utility of nonviolent action and its potential applications in an unconventional warfare scenario. See Doowan Lee and Glenn W. Johnson, "Revisiting the Social Movement Approach to Unconventional Warfare," Small Wars Journal (December 2014), smallwarsjournal.com/.
- 146. See "Indian Army Went without Parachutes for over a Decade: CAG," Hindustan Times, 19 December 2015, available at www .hindustantimes.com/, and Rahul Bedi. "Pathankot Attack Exposes Equipment Shortcomings of India's NSG Special Forces," IHS Jane's Defence Weekly, 19 January 2016.
- 147. U.S. SOF officers and defense officials, interview by author, 10 December 2015.
- 148. In his well-known study of special operations, Adm. William McRaven, USN (Ret.), cautions against such overly rapid expansion. William H. McRaven, Spec Ops: Case Studies in Special Operations Warfare; Theory and Practice (New York: Ballantine Books, 1996),
- 149. Serving Para SF colonel to author, 10 June 2015.
- 150. Raman interview.
- 151. "India: Special Operation Forces."
- 152. An Indian brigadier general, interview by author, 10 December 2015.

- 153. Christopher Spearin, "Special Operations Forces and Private Security Companies," Parameters 44, no. 2 (Summer 2014), pp. 61-73.
- 154. Rahul Bedi, "India's Special Forces Expanding without Adequate Training or Support," IHS Jane's Defence Weekly, 26 November 2010.
- 155. U.S. defense officials, interview by author, 10 December 2015.
- 156. Serving Para SF brigadier interview.
- 157. Iskander Rehman, Recasting India's Special Forces (Philadephia: Univ. of Pennsylvania, Center for the Advanced Study of India. 2015), available at casi.sas.upenn.edu/.
- 158. See "Keynote Address: Air Chief Marshal P. V. Naik," in Employment of Special Forces: Challenges and Opportunities for the Future, ed. V. S. Yadav [Col.] (New Delhi: VIJ Books, 2012), p. 17; P. K. Vasudeva, Increase in Para-Special Forces without a Unified Structure Is an Exercise in Futility (New Delhi: United Service Institution of India, 2014), available at usiofindia.org/; and P. C. Katoch [Lt. Gen.] and Saikat Datta, India's Special Forces: History and Future of Indian Special Forces (New Delhi: VIJ Books, 2013).
- 159. Recently retired Indian intelligence official interview.
- 160. The Indian MOD has declared that the twenty-two AH-64 E Apache Longbow helicopters currently under acquisition contract would accrue to the IAF, while future acquisitions would go to the Army Aviation Corps (AAC). The AAC has made a demand for another thirty-nine Apaches, and hopes eventually to replicate the U.S. Army's heliborne units. See "Indian Army," IHS Jane's Sentinel Security Assessment-South Asia, updated 23 February 2016, janes.ihs.com/.
- 161. Amit Kumar, "India's Special Forces: An Appraisal," Journal of Defense Studies 9, no. 2 (April-June 2015), pp. 157-58.
- 162. On the role of SOF combat air controllers, see Jason Porterfield, USAF Special Tactics Teams: Inside Special Operations (New York: Rosen, 2009).
- 163. Matheswaran to author, 11 June 2015.
- 164. Anit Mukherjee, "The Big Military Challenge," Indian Express, 25 January 2016, available at indianexpress.com/.

- 165. Barbara Opall-Rome, "Israel Mulls Revamp of Special Ops Forces," Defense News, 15 June 2015, available at www.defensenews.com/.
- 166. U.S. defense officials interview.
- 167. Rod Lenahan, Crippled Eagle: A Historical Perspective of U.S. Special Operations, 1976-1996 (Charleston, SC: Narwhal, 1998).
- 168. Colin S. Gray, "Handfuls of Heroes on Desperate Ventures: When Do Special Operations Succeed?," Parameters 29, no. 1 (Spring 1999), pp. 2-24.
- 169. See "Indian Army's Myanmar Operations: 10 Insider Facts," India Today, 10 June 2015, available at indiatoday.intoday.in/.
- 170. Sushant Singh, "Inside the Surgical Strike: Choppers on Standby, 70-80 Soldiers," Indian Express, 1 October 2016, available at indianexpress.com/.
- 171. See Siddharth Varadarajan, "Surgical Strikes: The Questions That Still Remain," Wire, 3 October 2016, thewire.in/.
- 172. Recently retired IA officers, e-mails with author, 2 October 2016.
- 173. See, for example, the firsthand account provided in H. S. Panag [Lt. Gen.], "The 'Lost' Operation against Pakistan in Chorbat La," Newslaundry, 14 September 2016, www .newslaundry.com/. A good, if somewhat outdated, overview of Indian and Pakistani SOF operations can be found in Kenneth Conboy, Elite Forces of India and Pakistan (Oxford, U.K.: Osprey, 1992).
- 174. Shlomo Gazit, "Risk, Glory, and the Rescue Operation," International Security 6, no. 1 (Summer 1981), pp. 111-33.
- 175. James D. Kiras, Special Operations and Strategy: From World War II to the War on Terrorism (New York: Routledge, 2006), p. 51.
- 176. A retired Para SF lieutenant general to author, 8 June 2015.
- 177. On according too much importance to SOFs in operational planning, see Niccolò Petrelli, "The Missing Dimension: IDF Special Operations Forces and Strategy in the Second Lebanon War," Small Wars & Insurgencies 23, no. 1 (2012), pp. 56-73. On the importance of appreciating the unique attributes of SOFs, see Michael W. Rauhut, "Win in a Complex World (II)': Why an Integrated Conventional

- and Special Operations Force Will Work Best," Defense in Depth (blog), Council on Foreign Relations, 22 October 2014, blogs.cfr
- 178. Steven L. Canby, "SOF: An Alternative Aspect on Doctrine," in Special Operations Forces: Roles and Missions in the Aftermath of the Cold War, ed. Richard H. Shultz Jr. et al. (Collingdale, PA: Diane, 1995), pp. 179-97.
- 179. G. D. Bakshi, The Indian Art of War: The Mahabharata Paradigm (New Delhi: Sharada, 2002).
- 180. Stephen P. Cohen and Sunil Dasgupta, Arming without Aiming: India's Military Modernization (Washington, DC: Brookings Institution, 2010).
- 181. Srinath Raghavan, "Civil-Military Relations in India: The China Crisis and After," Journal of Strategic Studies 32, no. 1 (2009), pp. 149-75.
- 182. On the role of the IAF during the Kargil War, see Benjamin Lambeth, Airpower at 18,000 Feet: The Indian Air Force in the Kargil War (Washington, DC: Carnegie Endowment for International Peace, 2012), available at carnegieendowment.org/.
- 183. The academic literature has shown that proxy war is only low risk when the sponsor

- is geographically remote from the arena in question. See Chris Loveman, "Assessing the Phenomenon of Proxy Intervention," Conflict, Security & Development 2, no. 3 (2002), pp. 45-47.
- 184. These factional disputes are explored in McGranahan, Arrested Histories.
- 185. See Jessica Falcone and Tsering Wangchuk, "We're Not Home': Tibetan Refugees in India in the Twenty-First Century," India Review 7, no. 3 (2008), pp. 164-95. For a somewhat hostile Indian perspective, see P. Stobdan, "Tibet and the Security of the Indian Himalayan Belt," in Himalayan Frontiers of India: Historical, Geo-political and Strategic Perspectives, ed. K. Warikoo (New York: Routledge, 2009), pp. 102-22.
- 186. One of the objectives of proxy war is to consume the resources and strategic attention of the target. This can be described as a "cost-imposing strategy," in the sense that the targeted competitor feels obliged to expend resources to preserve internal stability. See Thomas Mahnken, ed., Competitive Strategies for the 21st Century: Theory, History, and Practice, Stanford Security Studies (Stanford, CA: Stanford Univ. Press, 2012).