



A paratrooper from 1st Squadron (Airborne), 40th Cavalry Regiment, and a 9th Assam Battalion soldier scale a climbing wall during interoperability training November 2022 at the Indian army's high altitude training area in Auli, India. Nanda Devi stands in the background at 25,643 feet. (Photo by Capt. Tim Cerruti, 1st Squadron [Airborne], 40th Cavalry Regiment, public affairs representative)

Strategic Partnership in the Himalayan Mountains

Yudh Abhyas 2022

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In November 2022, 1st Squadron (Airborne), 40th Cavalry Regiment, the “Denali Squadron,” and a contingent of the staff from 2nd Infantry Brigade Combat Team (Airborne), 11th Airborne Division (2/11 IBCT), deployed from Joint Base Elmendorf-Richardson to the Indian army’s high altitude training area in Auli, India, to conduct an eighteen-day bilateral training exercise—Exercise Yudh Abhyas 2022 (YA22). U.S. Army Pacific Command and the Indian army established Yudh Abhyas in 2004 as an annual bilateral exercise and has since executed eighteen iterations ranging in scope from a platoon-level field training exercise (FTX) to a battalion/squadron-level FTX that coincided with a brigade-level command post exercise. It has typically alternated host nations yearly, with U.S. Army Pacific Command hosting odd-numbered years and the Indian army hosting even-numbered years.¹ Of note, this exercise is not strictly an 11th Airborne Division mission; the 25th Infantry Division initially hosted it and subsequently the 7th Infantry Division.²

The Denali Squadron partnered with 9th Battalion of the Assam Regiment, nicknamed the “Nimble Ninth” or “9th Assam,” for this iteration of Yudh Abhyas. The 9th Assam Battalion specializes in training and fighting at high altitude, arguably the most challenging terrain on the planet. The Assam Regiment (self-named the “Rhinos”) of the Indian army has a long and gallant history throughout multiple conflicts. Its first battalion was raised in June 1941 to fight against the Japanese invasion of what is present-day Burma.

The regiment has grown since its inception to over twenty infantry battalions of varying focuses and specializations from all seven of the northeastern states of India.³

Strategic Significance of Yudh Abhyas

Yudh Abhyas’s strategic importance is clearly outlined in the National Defense Authorization Act of

2022, “To advance the shared objective of a free and open Indo-Pacific region through bilateral and multilateral engagements and participation in military exercises, expanded defense trade, and collaboration on humanitarian aid and disaster response.”⁴ The exercise is directly focused on broadening ties with India. At its inception, the Yudh Abhyas exercise provided a line of communication to a country that had previously been isolated from the global community. India’s strategic geographical position in the U.S. Indo-Pacific Command (USINDOPACOM) area of responsibility (AOR) provides a vital partner in the vicinity of our primary strategic threats—China, Russia, North Korea, and Iran. With a lack of a NATO-comparable alliance in the Pacific theater, Yudh Abhyas strengthens U.S. relations in the USINDOPACOM region, providing tangible efforts to enhance geopolitical and military relationships. This exercise also supports the larger framework of the Pacific Pathways mission by ensuring close military and geopolitical ties through bilateral cooperation, and it provides proof of interoperability concepts for future contingency and large-scale combat operations.⁵

Yudh Abhyas is one of many multinational exercises within the USINDOPACOM AOR, which comprises almost half of the earth’s surface and is home to more than half of the global population.⁶ As many of these nations have maritime interests and influence, many of these exercises have a maritime focus. Exercises such as Pacific Vanguard, involving naval forces from five nations and executed simultaneously with our land-based exercise, support several USINDOPACOM focus areas like allies, partners, and exercises.⁷

Pacing Threat Reaction

China’s reaction to YA22, which occurred within one hundred kilometers of the Line of Actual Control (a demarcation line between China and India that delineates areas in the disputed border region that are actually controlled by the two parties in lieu of an actual agreed-upon border), is tangible proof of the impact a single cavalry squadron can have in a strategic partnership in the USINDOPACOM AOR. China’s Ministry of National Defense spokesperson, Zhao Lijian, formally objected to the exercise, stating this training event “violated the spirit of relevant agreements signed by China and India in 1993 and 1996, and

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1st Squadron (Airborne), 40th Cavalry Regiment, paratroopers and 9th Assam Battalion soldiers conduct an acclimatization training foot march during the first phase of Exercise Yudh Abhyas 2022 in Auli, India. (Photo by Capt. Tim Cerruti, 1st Squadron [Airborne], 40th Cavalry Regiment)

does not help build bilateral trust.”⁸ In response, the Indian government dismissed China’s opposition of the exercise, which further supports our endeavor to increase multinational partner ties and reinforces the importance of the United States as the partner of choice in the region.⁹

11th Airborne Division in the Indo-Pacific

The “Arctic Angels” continue to prove their capability to operate in the Arctic, mountainous terrain, and other extreme cold-weather areas while maintaining readiness for global deployments within the USINDOPACOM AOR. To attain these diverse objectives, the 11th Airborne Division (Arctic) concentrates on “three distinct sectors of development: Arctic capability, readiness for large-scale combat operations, and interoperability with allies and partners.”¹⁰ This exercise provided the opportunity to prove that Arctic Angel paratroopers can deploy, fight, and win in any environment within the theater.

Exercise Design

YA22 was executed in three phases. The first phase included deployment and acclimatization, which set conditions for the physical and mental rigors of the training exercise. Phase two consisted of interoperability training that provided the foundation from which the combined battalion would draw upon to complete the FTX successfully. The final phase, the FTX, was the culminating event that validated the tactical acumen and interoperability of four U.S./Indian army combined companies.

Phase I: Deployment and Acclimatization

Acclimatization is critical to preparing to fight and win in a high-altitude environment. Fitness is a great equalizer, and the squadron set conditions for this deployment by conducting an intense regimen of physical training in the mountains surrounding Joint Base Elmendorf-Richardson. Denali paratroopers focused on long-distance movements on foot and snowshoes with

full combat equipment twice a week for four months leading up to the exercise and incorporated weekly lower-body strength workouts. This regimen paid huge dividends when facing the terrain at the high-altitude training site in the Himalayas.

Over the course of a three-day period, Denali paratroopers of the 11th Airborne Division deployed from Joint Base Elmendorf-Richardson at an elevation just above sea level to the training site in Auli, India, at 9,500 feet above sea level. Upon their arrival, the commander of the 9th Assam Regiment, Brig. Gen. Pankaj Verma, requested that all 11th Airborne Division paratroopers complete a strict three-phase, four-day acclimatization period. The Indian army utilizes this four-day acclimatization model prior to conducting any training above 2,500 meters (\approx 8,200 feet).

Phase Ia of acclimatization encompassed two days, during which the squadron was restricted to limited movement around the camp with no vigorous activity or exercise. Phase Ib, the intermediate phase, started on the third day. Vigorous activity was still restricted, but troopers were encouraged to move around the camp freely at their own pace. Phase Ic, the run phase, allowed the troopers to conduct physical fitness training and led into the first day of tactical training for the exercise.

During the acclimatization period, the Denali Squadron and 2/11 IBCCT staff members conducted initial integration of forces; shared tactics, techniques, and procedures (TTP) for operating in high altitude and extreme cold weather; and participated in the YA22 opening ceremony. Officers of the 9th Assam led lectures on operations in high-altitude areas (HAA), focusing primarily on physiological aspects of acclimatization, identification and treatment of high-altitude illnesses, identification and treatment of cold weather injuries, and survivability in HAAs and extreme cold weather environments. The Indian army and U.S. Army use very similar identification techniques and treatments for cold weather injuries, but the Indian army focuses more heavily on high-altitude illnesses. The primary illnesses that impact operations in HAAs include altitude illness syndromes (i.e., acute mountain sickness, which occurs at altitudes greater than eight thousand feet; high-altitude pulmonary edema; and high-altitude cerebral edema) and high-altitude pulmonary hypertension.¹¹

In addition to high-altitude illnesses, the Indian army officers provided a combination of lectures, demonstrations, and practical exercises on survivability in HAA. This training focused on avalanche risk identification, rescue techniques, and maneuvering on glaciers. These specialties allow the Indian army to safely traverse the mountainous terrain in the Himalayas.

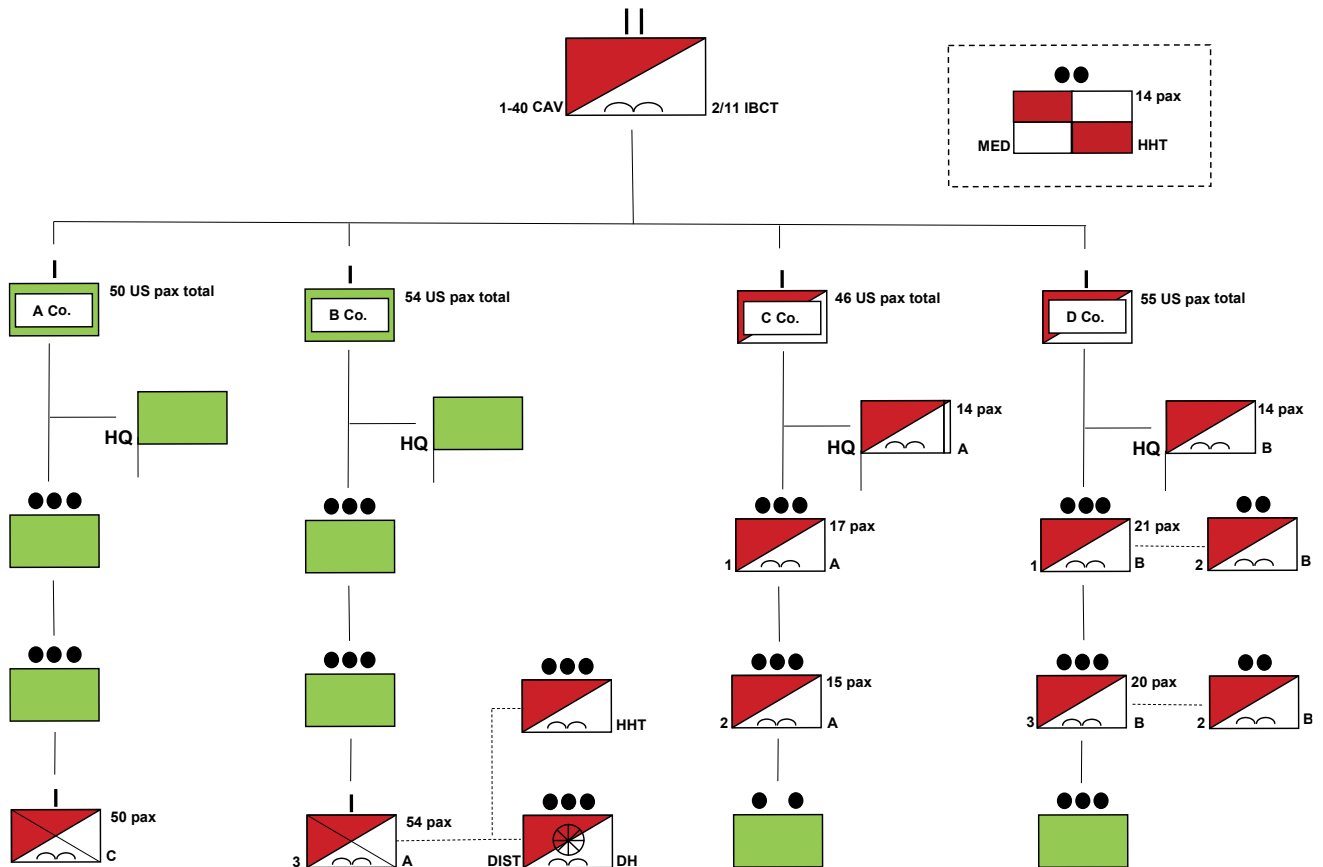
The acclimatization period culminated as the 9th Assam soldiers and Denali paratroopers conducted the opening ceremony. The Indian army's band learned and played the U.S. national anthem to express their respect for the partnership. The opening ceremony focused on the history of the exercise and esprit de corps between the Denali Squadron and the 9th Assam, and it ended with the initial integration of the companies to prepare for the next phase, interoperability.

Phase II: Interoperability Training

The interoperability phase of the exercise began by establishing the combined battalion task organization (see figure 1). The partnered battalion composition included 234 paratroopers across Alpha, Bravo, and Charlie Troops of the Denali Squadron and 325 soldiers from the 9th Assam Battalion. These elements merged to create four companies and established the foundation for interoperability for the duration of the exercise. The company task organization structure was created to integrate infantry and reconnaissance capabilities into each maneuver unit. It also facilitated our ability to share TTPs at the individual and company levels easily. A secondary benefit was the natural cohesion built between Denali troopers and 9th Assam forces.

Alpha and Bravo Companies were commanded by company commanders from the 9th Assam who hold the rank of major. The composition of these companies included two 9th Assam infantry platoons and one U.S. dismounted infantry reconnaissance platoon from Charlie Troop. U.S. captains commanded Charlie and Delta Companies and were each comprised of one organic reconnaissance troop and one 9th Assam infantry platoon. To assist with command and control and to also serve as liaisons, the 9th Assam assigned captains to C and D Companies as each unit's second-in-command.

The task organization of the combined battalion worked well as the unique capabilities of



(Figure by author)

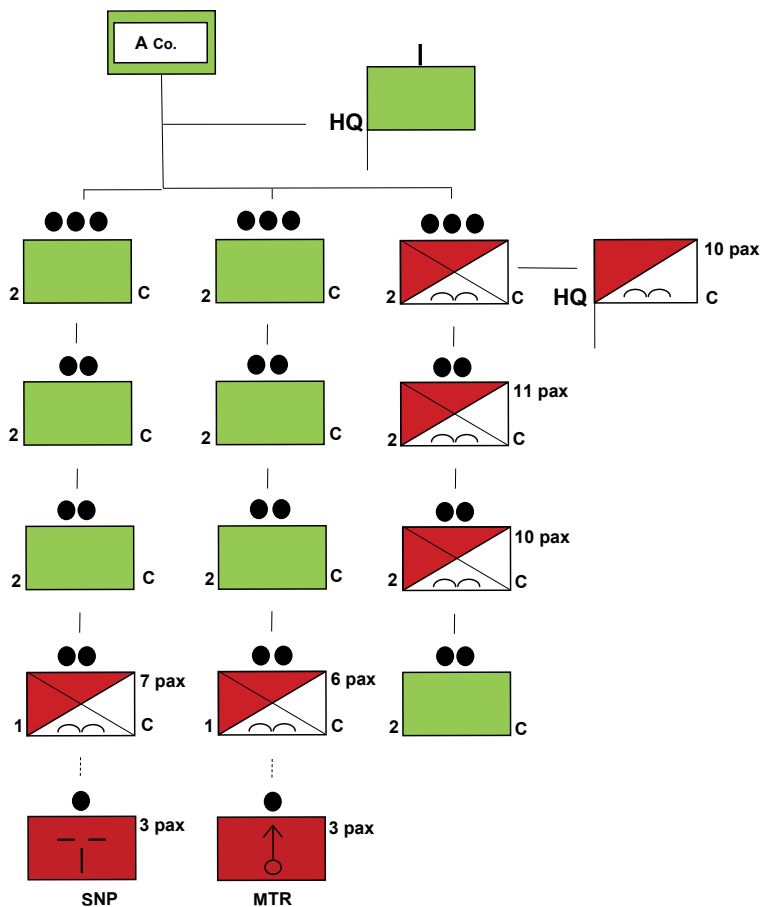
Figure 1. Yudh Abhyas 2022 Combined Battalion Task Organization Chart

reconnaissance and infantry elements within each company complemented each other, and they identified and worked through a language barrier between Denali troopers and 9th Assam soldiers, a challenge that is often inherent to combined operations. Very few enlisted 9th Assam soldiers or junior officers spoke English; likewise, very few U.S. paratroopers and leaders spoke Hindi. However, the units were able to mitigate this through the phenomenal work of the 9th Assam company commanders and second-in-command leaders as they provided critical interpreter capabilities that further enabled mission success.

During the interoperability phase, the companies executed tactical training across three broad categories: tactics, equipment, and mountaineering. By focusing the training on these specific aspects of combat capabilities, both units were afforded the opportunity to learn from one another and share TTPs. Each training event began with a detailed and well-organized instruction

block and demonstration given by either a 9th Assam or a Denali subject-matter expert. After the block of instruction on preferred tactics, the group discussed notable similarities and differences between the units' respective TTPs and then conducted practical exercises to enhance the experience. This method of teaching and learning allowed the units to grow together as combined companies and established the baseline for how they would execute operations during the FTX portion of the exercise.

Tactics training modules. The units executed five tactics training module lanes during the interoperability phase. The Village Clearing module helped both organizations better understand planning considerations of seizing or securing objectives within a built-up area, command and control of a raid, movement in urban terrain, and room clearing. Kill Box—or what the U.S. Army refers to as Battle Drill 6, Enter and Clear a Room—helped us share TTPs on how to



(Figure by author)

Figure 2. Yudh Abhyas 2022 Company A Task Organization Chart

clear buildings of suspected hostile forces, the special equipment required, and the roles and responsibilities of each member of the squad and platoon. The Jungle Lane demonstrated the difficulties associated with small-unit operations within densely vegetated rainforest or jungle. This two-hundred-meter lane, in essence, was a range that required teams to maneuver uphill while identifying and engaging static and moving enemy targets with paintball ammunition rounds. The Trap Lane was another jungle-specific lane that helped demonstrate how the enemy can use intricate trap systems during guerilla warfare to attrit enemy forces without decisive engagement. U.S. forces experienced many of the same traps—which include punji pits, swinging logs attached to trip wires, and blow darts tied to pressure mechanisms—during the Vietnam War. The Counter-Improvised Explosive Device Tactical

Lane specifically intended to compare Indian versus U.S. Army TTPs. The Indian army began by staging a specific scenario that involved the approach of a suspected vehicle-borne improvised explosive device and the required steps of clearing said threat. Indian and U.S. soldiers demonstrated their preferred methods of clearing such threats from road systems.

Equipment training modules. To gain a better appreciation of each unit's tactical employment of weapons and capabilities, the units executed three equipment-focused training modules during the interoperability phase. The Unmanned Aircraft System (UAS) and Counter-UAS Module enable the combined force to observe and train with one another's assigned UAS, share capabilities, and discuss preferred methods of countering enemy UAS threats. The Weapons Training Module included a capability overview of each unit's assigned weapon systems from individual weapons to crew-served weapon systems as well as hands-on live-fire training at a range complex. The Equipment Display Module focused on demonstrations of

special items of mission essential equipment to include missile systems and long-range acquisition optics. Hands-on training followed the demonstrations.

Mountaineering training modules. To further enable successful execution of operations during the FTX, the units completed several military mountaineering lanes. The rock-climbing lanes were separated between natural and artificial rock walls. Indian army mountaineering experts received support from U.S. mountaineers to provide training to all personnel from both nations. Soldiers rappelled from fifty-foot towers, climbed artificial rock walls, zip-lined across natural chasms, and experimented with different descent techniques.

In addition to the interoperability modules, each morning, the companies conducted a physical training regimen together, which enhanced cohesiveness



1st Squadron (Airborne), 40th Cavalry Regiment, paratroopers and 9th Assam soldiers conduct a familiarization fire with the M240 Medium Machine Gun during the interoperability phase of Exercise Yudh Abhyas 2022 in Auli, India. (Photo by Capt. Tim Cerruti, 1st Squadron [Airborne], 40th Cavalry Regiment)

and esprit de corps to set conditions for the upcoming FTX. These physical training events were wide-ranging and included yoga, cardiovascular endurance training, strength training, and competitive sports.

Phase III: FTX Execution

The FTX phase of the exercise employed the four companies across a broad geographic area around the high-altitude training area. The scenario included a wide range of tactical mission tasks to include establishing a patrol base, conducting link-up procedures, conducting a passage of lines, conducting a zone reconnaissance, conducting a raid, and conducting humanitarian and disaster relief operations.

C Company initiated the FTX by infiltrating into the training area dismounted and maneuvering north of Auli to establish a temporary operating base (TOB, or patrol base). C Company established security, and A Company maneuvered dismounted into the area of operations, conducted link-up procedures and a forward passage of lines through C Company, and moved

into the TOB. This allowed them to conduct troop leading procedures, precombat checks, and precombat inspections to set conditions for initiating movement to execute a raid on an objective that housed a high-value target. During the raid, the high-value target and several suspected accomplices exfiltrated the objective area and maneuvered to another village.

C Company displaced and maneuvered to an alternate location to establish another TOB and prepared for a zone reconnaissance mission in support of B Company. C Company's zone reconnaissance operation included scouting routes to facilitate unrestricted maneuver for B Company into their objective area and establishing three observation posts along a ridgeline that overlooked B Company's objective. C Company employed both U.S. and Indian high-powered optics and targeting devices to provide overwatch and identify personnel in the village. The company collected priority intelligence on the objective and communicated it to the combined battalion tactical operations center to drive the decision-making process to commit B



A 1st Squadron (Airborne), 40th Cavalry Regiment, paratrooper and a 9th Assam Battalion soldier traverse a rope bridge that was constructed to replace a simulated bridge destroyed by flooding during the humanitarian relief mission of the field training exercise phase of Exercise Yudh Abhyas 2022 in Auli, India. (Photo by Capt. Tim Cerruti, 1st Squadron [Airborne], 40th Cavalry Regiment)

Company's cordon and search of the objective village. B Company subsequently conducted a cordon and search of the objective village and captured the high-value target, concluding the direct-action portion of the FTX.

While A, B, and C Companies executed their respective direct-action missions, D Company concurrently executed an out-of-sector humanitarian and disaster relief mission. The scenario for this phase of the FTX was drawn from a real-world event in 2021 during which a valley within Uttarakhand was suddenly and catastrophically flooded when an avalanche dropped twenty-seven million cubic meters of rock and glacier ice from the nearby Ronti Mountain, causing a dam to fail and resulting in over two hundred people dead or missing.¹² D Company's mission tasks included search-and-rescue procedures in mountainous terrain,

command and control, casualty care, casualty evacuation, and battle tracking. D Company established a command post and Role 1 medical center and embedded mountaineers at points of high terrain that made manual traversing impossible. One site involved packaging casualties into a Skedco litter and sending them on a zip line across a canyon, three hundred feet above a river. Another site focused on the assisted lowering of a litter patient in a Skedco supported by two mountaineers. Reports were given directly to the company commander, who documented each casualty received in order to provide information to displaced families and to higher headquarters. The FTX culminated with a combined after action review in which each company shared lessons learned and highlighted their successes during the mission.

Lessons Learned

Troopers of the Denali Squadron and the soldiers of the 9th Assam Regiment left YA22 more confident, competent, and capable of executing their assigned missions at home and abroad. We found that language barriers do not constrain unit cohesion, it is built upon crucible-like training in harsh environments with a single mind toward completing the mission. The most

significant lesson learned is that the acclimatization period is crucial to mission success for all military operations in HAA. These operations require intense preparation, a rigid acclimatization process, and multiple years of experience to build the expertise necessary to thrive in the environment. Exercise YA22 proved that the Denali Squadron is fully prepared to deploy, fight, and win in any environment across the INDOPACOM AOR. ■

Notes

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