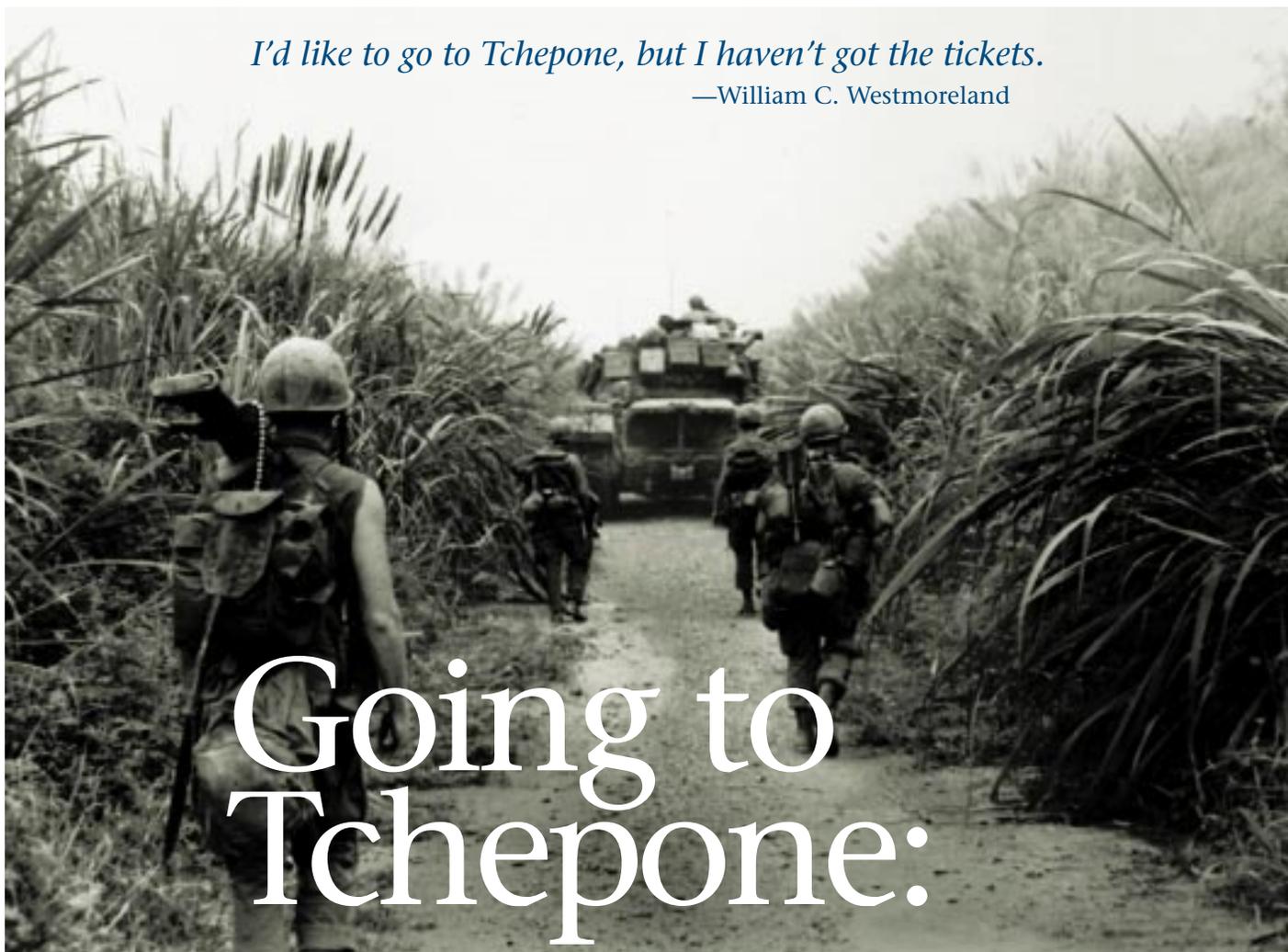


I'd like to go to Tchepone, but I haven't got the tickets.

—William C. Westmoreland



U.S. Marine Corps (J.A. Reid)

Going to Tchepone:

M-48 tank leading marines along Route 9.

OPLAN El Paso

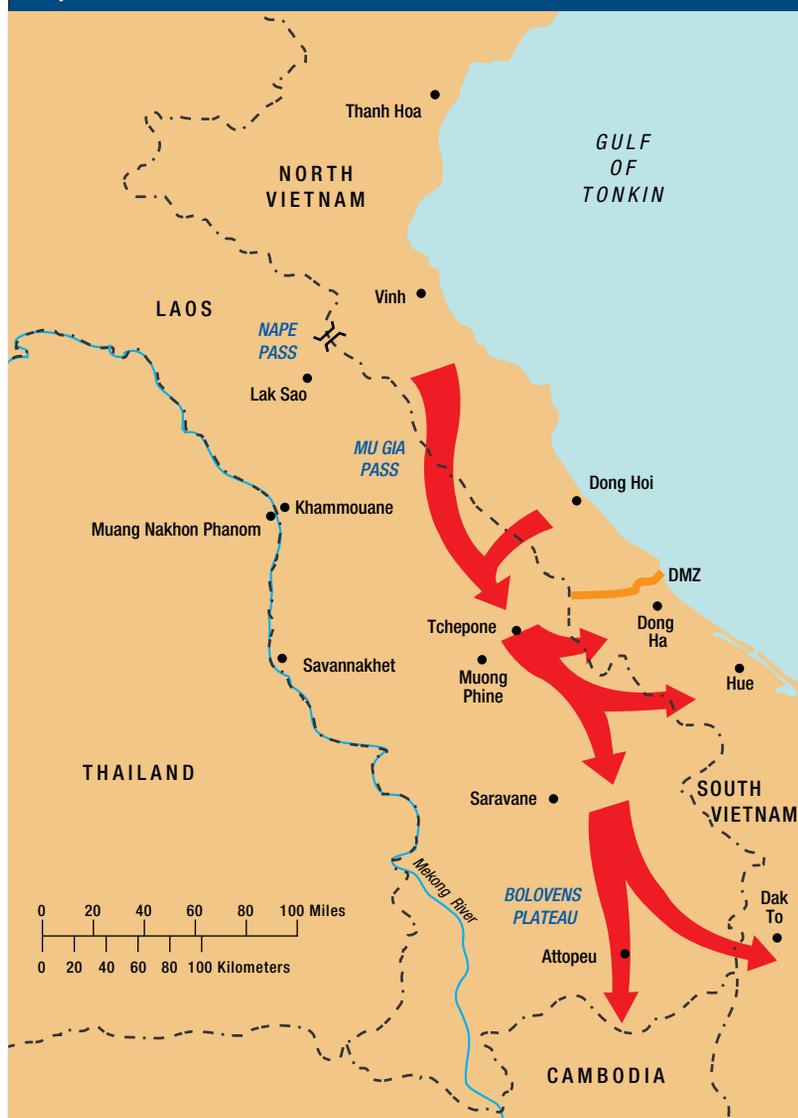
By JOHN M. COLLINS

The Ho Chi Minh Trail, which linked North and South Vietnam via the Laotian panhandle, was an indispensable source of supplies for communist forces operating below the 17th parallel in the 1960s and early 1970s. Air interdiction and special operations forces slowed but never stopped the flow of matériel. President Lyndon Johnson, primarily for political considerations, would not approve air strikes around Hanoi and Haiphong, which might have been more successful in the overall effort to disrupt enemy activities.

General William Westmoreland—the commander of U.S. Military Assistance Command, Vietnam, from 1964 to 1968—commissioned an operation plan designated El Paso to interdict the trail. It was a corps-sized operation to seal off the trail at Tchepone in Laos for 18 months during the dry season which was preceded and followed by torrential rains that reduced vehicle traffic to a

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Map 1. Main Avenues of Ho Chi Minh Trail



trickle. Planners who worked on the operation between November 1967 and March 1968 discovered that geography profoundly influenced every aspect of a large-scale, long-duration operation mounted far from existing support facilities. This article examines the geographic considerations which the author encountered as a member of the El Paso planning staff while assigned as chief of the campaign planning group at Headquarters, U.S. Army Vietnam.

The Trail

Initially opened to support Viet Cong guerrillas in South Vietnam, the Ho Chi Minh Trail was nothing more than a skein of rustic traces

through the wilderness in the late 1950s. Dedicated men, women, boys, and girls trudged down its paths bent bandy-legged beneath heavy loads, all but ignored by senior officials in Washington and Saigon because the invoices were unimpressive: a little rice, pitted handguns captured from the French, homemade weapons pieced together like so many Rube Goldberg inventions. The tempo, however, gradually picked up and the consignments increasingly included items such as radios, pharmaceuticals, plastic explosives, recoilless rifles, and repair parts. Ammunition requirements multiplied exponentially after U.S. combat forces hit North Vietnamese Army (NVA) regulars head on in 1965.

Evolutionary Development

Brutal courses that initially traversed several hundred miles of exhausting, saw-toothed terrain between Vinh and the demilitarized zone (DMZ) later continued the grind through Laos, which could more than double the distance to ultimate destinations in South Vietnam (see map 1). Human bearers and assorted beasts struggled to tote swelling loads, yet gaps between supplies and demands became ever wider as individual burdens grew progressively heavier. Each 122-mm rocket weighed 102 pounds (46 kilograms), more than most of the porters; five would buckle the knees of pint-sized elephants which pushed and pulled better than they bore cumbersome loads. Requirements for routes that could accommodate truck traffic thus were clear (figure 1), but most passages in the back country were primitive, largely bridgeless, pitted with water buffalo wallows, and subsequently battered by bombs.

Senior decisionmakers in Hanoi accordingly initiated ambitious renovation and expansion programs to widen rights of way, span streams, level humps, fill in hollows, corduroy spongy ground, and establish way stations. The improved Ho Chi Minh Trail, constructed and maintained with tools that ranged from D-handle shovels to bulldozers and scrapers, incrementally became a labyrinth of motorable roads, cart tracks, foot paths, and navigable streams that by early autumn 1967 furnished communist forces in South Vietnam about a quarter of their supplies (70 percent of arms and munitions). Aerial bombardments pocked those avenues like the surface of the moon, but dogged peasants under military supervisors patched the damage and built bypasses as convoys shuttled from point to point under cover of darkness and ever more effective anti-aircraft umbrellas.

Figure 1. Transport on the Trail

Prime Movers	Rated Capacity
Male Porters	68 lbs. (31 kg)
Female Porters	55 lbs. (25 kg)
Elephants	440 lbs. (200 kg)
Pack Bicycles	525 lbs. (238 kg)
Ox Carts	2,200 lbs. (998 kg)
Trucks	
GAZ-51	4,400 lbs. (1,996 kg)
ZIL-151	5,500 lbs. (2,495 kg)
STAR-66	7,720 lbs. (3,500 kg)

Business was necessarily cyclical since seasonal rains turned the Ho Chi Minh Trail into mush from mid-April until at least late September. NVA logisticians on the lee side of mountains that block the southwest monsoon thus amassed stockpiles inside their border during summer months, when skies were sunny along the coast, in preparation for great surges south when roads in Laos became dry. Communist base areas honeycombed with caves, tunnels, bunkers, and subterranean storage pits inside Laos held stocks pending distribution to using units.

Laotian Landscapes

The panhandle of Laos is comprised of three parallel regions roughly oriented from north northwest to south southeast: jumbled mountains straddling the eastern frontier; a rolling plain west of Muong Phine stretching all the way to the Mekong; and a rough, fever-ridden, sparsely-settled transition zone which lies between them. The Ho Chi Minh Trail traversed all three areas (map 2).

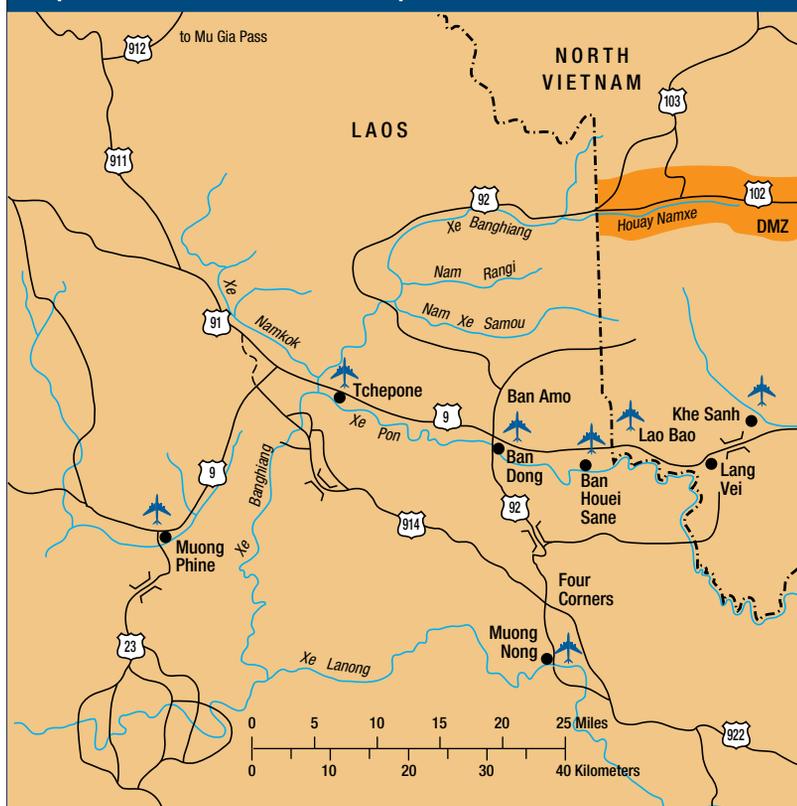
The Annamese Mountains. The highest peak along the border between Laos and Vietnam barely tops 5,500 feet, and a few other summits surpass 4,000 feet, but such heights are deceptive since mountain streams chisel razorbacked ridges and canyons from bedrock. Numerous inclines exceed 45 degrees or 100 percent (one vertical for each horizontal foot). Topography is roughest north and west of the DMZ, where massive limestone deposits dissolve in tropical downpours, sculpting needle-shaped pinnacles, sink holes, and culs-de-sac. NVA workshops, apartments, and stockpiles occupied giant caverns with cool, dry, blast-proof halls three or four stories high which extended 1,000 feet or more into hillsides.

Abandoned runway at Ban Houei Sane.



U.S. Air Force

Map 2. Laotian Panhandle at Midpoint



Few convenient apertures other than Mu Gia Pass and Khe Sanh Gap cross that mountain wall because swift streams that cascade west carve constricted corridors studded with rapids—the Banghiang River traverses a gorge so steep that contour lines sit atop one another—and slopes everywhere are as slippery as bobsled runs when greased by rain.

Dank, gloomy, multistoried jungles with dense undergrowth mantle much of that redoubt with thick stands of teak and mahogany towering 90 to 100 feet with occasional monsters half again as high. Corded vines festoon the lower levels and lacerate unwary travelers with terrible barbs. Huge breaks of bamboo stretch from Khe Sanh to Ban Houei Sane, close clumped, almost impenetrable, and with stalks up to half a foot thick. Secondary growth quickly reclaims lands exposed to slash-and-burn farming by Montagnard tribal groups.

The transition zone. Topography in the transition zone between mountains on the east and relatively level terrain on the west features discontinuous uplands that chop the Laotian landscape

into acute angle compartments. Two prominent east-west ridges a few miles apart with a trough in between follow parallel paths fifty miles from Khe Sanh past Tchepone, where the northern runner peters out. Its companion, which plunges on for another fifty miles, is a natural barrier breached in just four places. The Lang Vei cleft farthest east expires south of Route 9 in a maze of serrated highlands. A second portal at Ban Dong opens to form a shallow, oblong bowl generally centered on Four Corners. Tchepone, a natural hub, has breakthroughs leading southwest, southeast, and east. The final opening, farthest west, comprises a broad pass at Muong Phine.

Under optimum conditions the Banghiang River at Tchepone, which is 3 feet deep and 100 yards wide, forms an impressive obstacle. More than 50 perpendicular runnels that drain wooded, broken ground just north of the Pon River and corrugate its flood plains are militarily insignificant during dry seasons but become raging torrents when it rains, while trackless palisades up to 800 feet high shadow the south bank for 15 miles west of Ban Dong.

Blobs of blue and red that represent friendly and enemy forces on tactical maps more often than not are worlds apart in the transition zone, where no vehicles move far off roads and trails. Foot troops may hike a mile or two an hour in open forests, but vegetation makes military columns backtrack, doubling or tripling straight-line distances. Youthful Paul Bunyons wielding machetes can hew through 100 yards of bamboo in 60 blistering minutes, provided they take an interest in their work and sergeants rotate point men frequently. The racket sounds like several unsynchronized Anvil Choruses.

Desolation typified the transition zone. Tchepone, once a large village of 1,500 occupants, was home to fewer than half that number by the mid-1960s. With most hamlets deserted and their inhabitants dead or departed, panhandle life had shifted from traditional rural clusters to NVA base areas in dense woods or river towns the Royal Laotian Government held.

The Savannakhet Plain. Relatively low, gently rolling real estate overgrown by brush and savanna grass characterizes the Savannakhet Plain save for scattered subsistence agricultural land. Most of the trail was positioned well to the east in 1967–68 because its architects preferred better cover and more direct routes to destinations in South Vietnam.

Motorable Infiltration Routes

The Combined Intelligence Center in Saigon estimated that 90 percent of all enemy troops infiltrated Laos through the DMZ via Routes 103

vegetation makes military columns backtrack, doubling or tripling straight-line distances

and 102, after which some marched south while others swung back into South Vietnam along the Nam Samou River and Route 9, both showering tributary tracks (see map 2). Equipment and supplies, however, took different tacks in 1967–68.

Route 92. A rude way no more than 10 or 12 feet wide, Route 92 was passable to one-way motor traffic from the DMZ to Ban Dong, where trucks swam the Pon River in dry weather, then negotiated extremely tight turns and steep grades to Four Corners. Major improvements later transformed that byway into the preeminent infiltration corridor in southern Laos.

Route 914. From 1965 until early 1968 when it became the most heavily traveled supply route between Tchepone and Route 92 at Four Corners, Route 914 carried traffic from numerous sources, including Mu Gia Pass and inland waterways. With a width of 8 to 30 feet and a laterite surface that accommodated tractor-trailers in fair weather, the route did not exactly tip on end after fording the Banghiang River, but it climbed 23 percent grades before finding an easier course.

Route 23. The only other motorable north-south avenue along the Ho Chi Minh Trail was Route 23, which became dormant and fell into disrepair when convoys began to use Route 914 as a shortcut. This traffic ceased in 1966 after fighter-bombers destroyed the triple-span Banghiang bridge. The river at that point was unfordable, but traffic revived a bit when barges and bypasses appeared some months later. Construction crews, however, never restored or replaced the battered bridge and quickly improved the natural earth roadbed, which at best was 7 or 8 feet wide.

Route 9. The only east-west “turnpike” across Laos, Route 9 was once a passing fair post road connecting Quang Tri Province on the Tonkin Gulf coast with the town of Savannakhet on the Mekong River, a distance of 200 miles. War and neglect had taken their toll, but the route still had greater potential than others: a stable base, crushed stone and laterite surfaces averaging 13 to 14 feet in width (less shoulders), gradients that did not exceed plus or minus 3 to 5 percent even in the Khe Sanh Gap, and access to nearly all militarily significant features in the study area (transportation nodes along the trail, NVA base areas, and the few populated pockets).

Typical ford bypassing colonial bridge on Route 9.



U.S. Air Force

Liabilities countered the assets. Several gullied or grossly overgrown stretches up to a mile long restricted horizontal clearance to as little as 6 feet. Lengthy meanders around fallen trees and bomb craters also reduced throughput capacities and increased transit time. Few colonial bridges survived U.S. air strikes, which systematically took them out starting in 1966. The rickety relics that remained could not support fully loaded three-quarter-ton trucks, but enemy vehicles routinely sloshed across everywhere, including on the broad sand and mud Banghiang River bottom, where 12-ton U.S. semitrailers would have bogged down in the absence of a pontoon bridge or ferry.

Significant Airfields

U.S. Marines at Khe Sanh possessed the only operational fixed-wing airfield in the study area after January 1968. Six others were abandoned in various stages of disrepair (see figure 2).

Lao Bao and Ban Amo. Since they had not been capable in their heyday and were badly in need of repair, neither Lao Bao nor Ban Amo was worth rehabilitating. The time, manpower, and money which would have been required could be better spent elsewhere.

Ban Houei Sane. On the outskirts of the sleepy village from which it took its name, Ban Houei Sane served U.S. C-130 transports until January 1968, when NVA regulars overran it on their way to Khe Sanh shortly before Tet. The crushed stone and laterite runway received more than 20 deep craters at that time, but the rest was in fairly good shape and expansion room to the west was almost unlimited.

Tchepone. The former French airbase located 23 air miles farther west at Tchepone fell to the communists in 1961, after the Royal Laotian Army withdrew. U.S. engineers determined that its well-drained, well-compacted 3,700-foot runway could be rehabilitated rapidly, though one end was pocked with bomb craters and blocked by elephant grass and brush. A knife-edged ridge a mile

south might have made C-130 landings and take-offs iffy but would not have interfered with light assault transports such as C-123s and C-17s.

Muong Phine. The derelict runway reclaimed by the jungle at Muong Phine was scarcely visible from the air, but its bomb damage was slight and its laterite surface had a solid foundation. Refurbishment would have required extensive land clearing plus filling to repair erosion scars as well as one deep depression. Landings from and take-offs to the west were unobstructed, although the runway unhappily pointed straight at a mountain mass in the opposite direction.

Muong Nong. The stubby 1,300-foot earth-surfaced runway at Muong Nong butted into a loop of the Lanong River 20-some miles south of Route 9. Even so, there was room to double that length by planing off humps and draining swampland. Engineers equipped with air transportable earth-moving machines probably could have produced a C-123 strip in about two weeks.

Khe Sanh. Just across the border from Laos in South Vietnam, the operational airfield at Khe Sanh combat base was built on weathered basalt, a reddish substance which resembles laterite but has few of its properties. Aluminum planks covered the runway, taxi strips, and parking areas to ensure all-weather capabilities, because basalt churns to mush and ruts quickly with any rainfall. Khe Sanh, unlike other airfields in the area, was fully equipped with tactical air navigation systems and radio beacons, ground-controlled approach radar, and aircraft refueling facilities.

Drop and Landing Zones

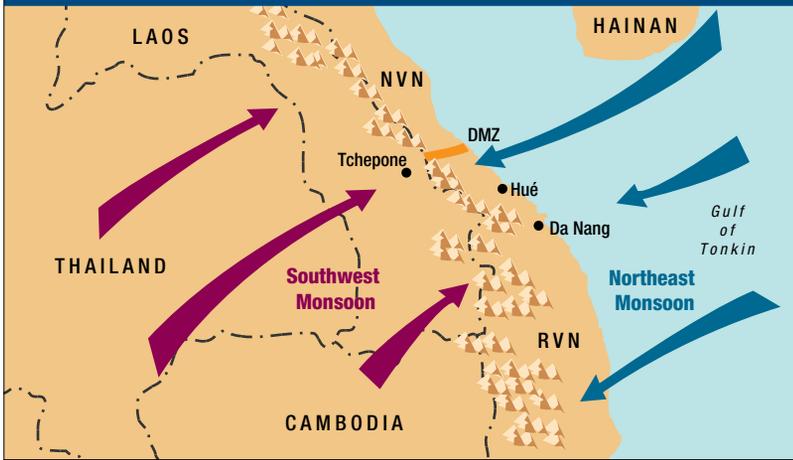
Open spaces usable as large-scale parachute drop zones or helicopter landing zones are scarce in the Laotian panhandle except on the Savannakhet Plain. Topography elsewhere is too formidable and the vegetation too confining.

Parachute drop zones. Paddy fields around Muong Phine offered the only opportunity for sizable parachute assaults which, according to U.S. Seventh Air Force standards, required a clear drop zone 2,925 yards long (more than a mile and a half) for 64 troopers in a fully-loaded C-130. But clearings located near Tchepone, Four Corners, and Ban Houei Sane were more than adequate for container deliveries of petroleum, oils, and lubricants (POL), ammunition, rations, and other high priority items (35,200 pounds per C-130). Well-qualified crews equipped with the parachute low altitude delivery system generally could put 2,000-pound bundles on 20-yard-square bullseyes on isolated hilltops or in jungle clearings, and the low altitude parachute extraction system could slide 18,000-pound platforms down obstruction-free dirt roads or other smooth surfaces that were 50 feet wide by 1,200 feet long.

Figure 2. Airfields

Airfield Name	Runway Dimension (feet)	Elevation (feet)	Largest Potential Capacity	Status
Lao Bao	1,100 x 65	650	C-7a	Abandoned
Ban Amo	2,250 x 75	480	C-7a	Abandoned
Ban Houei Sane	3,560 x 90	480	C-130	Abandoned
Tchepone	3,700 x 120	558	C-130?	Abandoned
Muong Phine	2,900 x 60	656	C-130	Abandoned
Muong Nong	1,300 x 60	500	C-123	Abandoned
Khe Sanh	3,897 x 60	1,608	C-130	Operational

Map 3. Monsoonal Regimes in South Vietnam and Laos



Monsoonal Influences

Planning for El Paso was complicated by the fact that forces committed to combat in Laos would have to stage in and be supported from one climatic zone along the coast of the Tonkin Gulf yet fight in another that is subject to different conditions including monsoonal rains, low ceilings, poor visibility, heat, humidity, and destructive winds. While hard data was available for most of Vietnam where French meteorologists had compiled records for many years, American intelligence agencies never acquired similar statistics for Laos where predictions involved guesswork.

The Annamese Mountains, perpendicular to prevailing winds, separate climatic regimes as surely as a closed door (map 3). When the northeast monsoon inundates South Vietnam from mid-October until March Laos is dry. Coastal regions bask in sunlight when the southwest monsoon occurs from May until early September, while Laos is saturated. Indefinite circulation during transitions produces instability and thunderstorms on both sides of the geologic curtain.

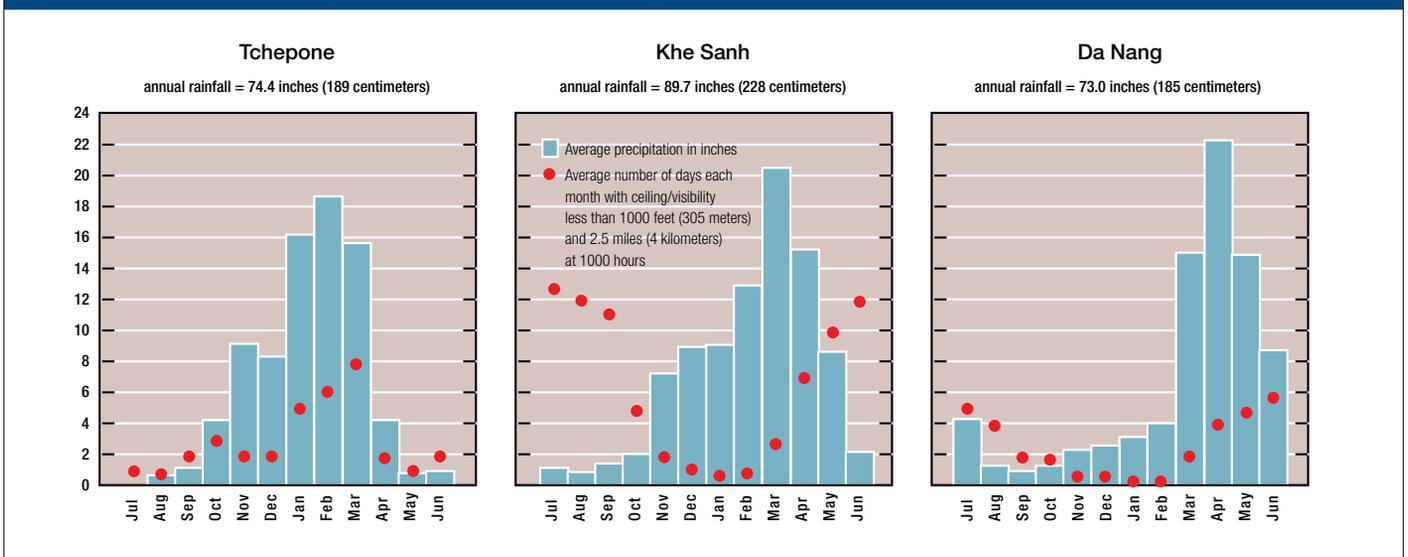
Spring rains in the Laotian panhandle, which generally start in April, increase exponentially when the southwest monsoon hits the next month, accompanied by frequent downpours and local flooding. Fair weather roads turn to quagmires and fords vanish beneath roiling runoff. Vehicular traffic ceased along the Ho Chi Minh Trail.

The northeast monsoon begins October 4–24. Precipitation perseveres in Laos for a week or two thereafter, then subsides, but low-hanging clouds close mountain passes along the eastern frontier half the days of some months (figure 3), military construction stops in South Vietnam, and flying weather becomes abominable as soon

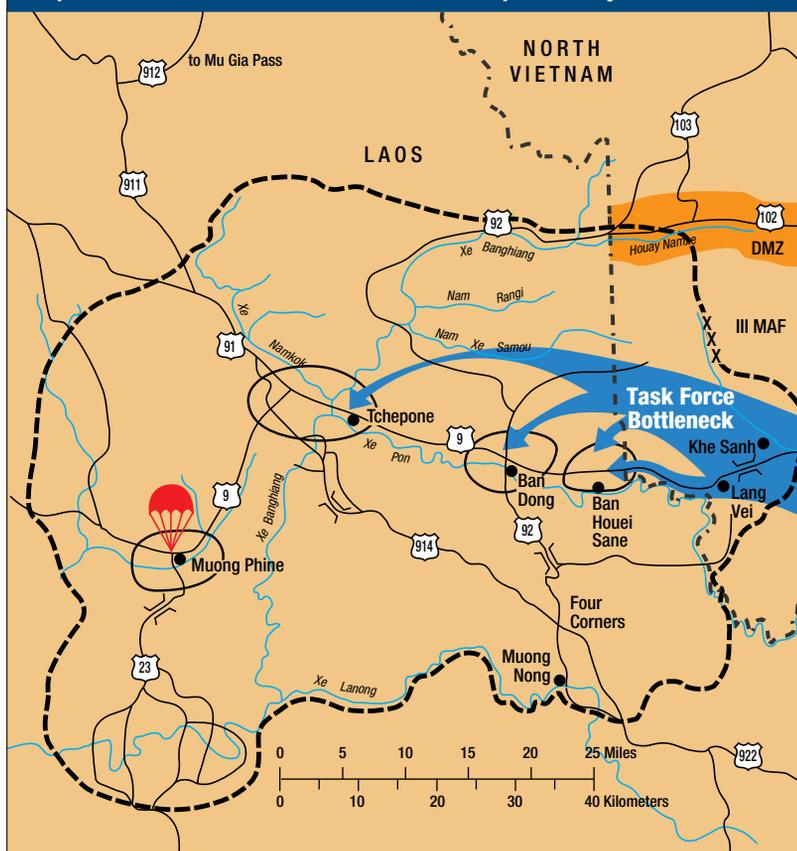
the versatility of rotary-wing aircraft is limited by altitude and temperature

Helicopter landing zones. While the versatility of rotary-wing aircraft is limited by altitude and temperature which affect their lift capacities, helicopter transport boded better than delivery by parachute. Tilled flats along Muong Phine and the Pon River could handle formation landings and takeoffs by multiple flights, but there were few open areas elsewhere that could accommodate more than one or two helicopters at a time. High explosives and chain saws would have been needed to quickly cut small pads in the dense forest where no natural cavities in vegetation reach the floor.

Figure 3. Monsoons at Tchepone, Khe Sanh, and Da Nang



Map 4. OPLAN El Paso: Tactical Area of Responsibility



as the coastal rainy season starts. Fluctuations from the autumn norm are fantastic. Hue, for example, has yo-yoed from 3.5 inches one year to 66 inches in another (Typhoon Bess dumped 20 inches on Da Nang in one day during 1968).

El Paso

Plans for operation El Paso, designed to interdict the Ho Chi Minh Trail, proceeded apace once the staff identified a sound lodgment area in Laos and a tactical area of responsibility (TAOR) within it. Efforts then turned to determining optimum timing, postulating a concept of operations, estimating force requirements, and presenting proposals to Westmoreland for approval.

The El Paso mission was the soul of simplicity: the task force would seize, secure, and as long as necessary block choke points astride the trail beginning at H-Hour on D-Day to forestall the infiltration of North Vietnamese troops, supplies, and equipment through the Laotian panhandle to South Vietnam and communist sanctuaries inside Cambodia.

Planning guidance earmarked one U.S. airborne division, one U.S. infantry division, and the Army of the Republic of Vietnam (ARVN) airborne division for Task Force Bottleneck, plus substantial combat and logistical support. Those allocations established requirements for a cockpit in which a corps-sized force could conduct sustained offensive and defensive operations without excessive risks or costs.

The logical lodgment area. Selection of the lodgment area presented no special problems because only one site meshed well with the mission:

- Blocking positions at Mu Gia and Nape Passes were assessed as unsuitable because they were too far from staging and support bases, expensive, probably untenable, and easily bypassed.
- Those at the western end of the DMZ would have scarcely affected traffic on the trail.
- Those on the Bolovens Plateau far to the south afforded enemy troops, supplies, and equipment free access to much of embattled South Vietnam.
- Blocking positions between Khe Sanh and Muong Phine were assessed as suitable since they covered most tracks and all motorable routes from North Vietnam through Laos to the South. Friendly forces could have installed roadblocks farther west in the unlikely event that enemy truck convoys side-slipped via the Savannakhet Plain where they would be exposed to air strikes.

Terrain. The tactical area of responsibility depicted in map 4 is a 2,400-square-mile oblate spheroid measuring forty by sixty miles. It contained ample room to deploy forces and enclosed seven key terrain features:

- the choke point and airfield at Tchepone
- the choke point and airfield at Muong Phine
- the choke point at Ban Dong
- the choke point at Four Corners
- Ban Houei Sane airfield
- Khe Sanh combat base
- Highway (Route) 9

Tchepone, together with the huge, heavily defended NVA base area nearby, was the focal point for every motorable infiltration route from Mu Gia Pass except national highway 23. Muong Phine and Ban Dong were two other blockage points. Four Corners offered a possible alternative to the hornet's nest at Tchepone because road blocks there would have shunted all enemy motor vehicles onto vulnerable Route 23 well to the west of Vietnam. The C-130-capable airfield at Ban Houei Sane would have been essential for any large-scale operation other than a raid. Khe Sanh combat base, airfield, and communications center was the only U.S. or ARVN installation capable of staging and supporting a corps-sized venture into Laos (it sat on the Xom Cham Plateau which, though small, had room for added POL tank farms, ammunition pads, and helicopter maintenance facilities that are voracious space



U.S. Marine Corps (Loblanc)

Bulldozing Highway 9 east of Khe Sanh.



Destroyed bridge across Banghiang River near Tchepone.

U.S. Air Force

Key Points

- Monsoon winds alternately encourage and discourage most military operations in South and Southeast Asia.
- Geographical circumstances affect supply, maintenance, transportation, medical, and other logistical requirements at least as much as combat operations.
- Logistical problems multiply and intensify in direct proportion to the distance between support bases and supported forces.
- Construction requirements soar in underdeveloped areas of responsibility.
- Rudimentary road nets magnify military reliance on airfields and inland waterways.
- Jungle-covered mountains reduce the advantages of airmobile forces in open terrain.
- Parachute delivery systems and helicopters can sustain small, isolated units in jungles, but large formations need main supply routes with much greater capacities.
- Pipelines can distribute large quantities of petroleum and water more cost-effectively than other forms of transportation.

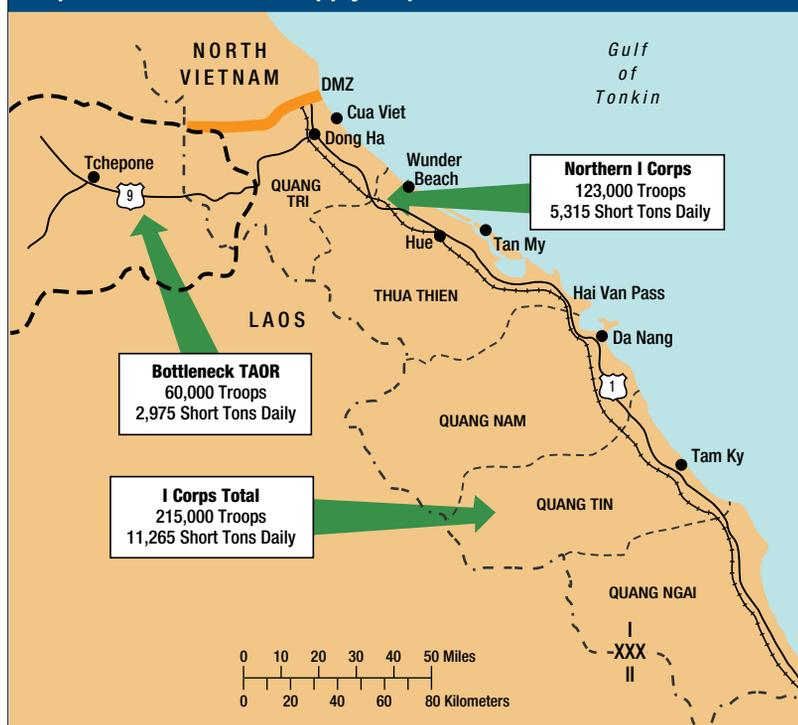
eters). Military planners seldom regard lines of communication as key terrain, but Route 9 was indispensable as a main artery since no combination of fixed-wing and heliborne delivery systems could have borne long-term logistical loads.

Concept of Operation

El Paso called for the ARVN airborne division to be dropped on Muong Phine at H-Hour on D-Day as U.S. airmobile brigades seized Tchepone, Ban Dong, and Ban Houei Sane airfield. U.S. tanks and infantry were to attack west from Khe Sanh simultaneously along Route 9 and link up as soon as possible. All three divisions and corps-level combat forces thereafter were to block enemy movement southward.

Airfield rehabilitation and conversion of Route 9 to a double-lane artery were high-priority

Map 5. OPLAN El Paso: Supply Requirements



Nang and petroleum tankers pumped bulk POL directly into storage bins at Tan My and Cua Viet. Fixed-wing aircraft, heavy-lift helicopters, and a meter-gauge railway transferred high-priority items to ultimate destinations. Military and civilian traffic shared coastal Highway 1, a heavily traveled artery that connected Saigon with Hanoi before Vietnam was partitioned along the 17th parallel, whereas military traffic predominated on Route 9, which ran west from Dong Ha to the prospective area of responsibility assigned to Bottleneck.

Logistical limitations and tactical vulnerabilities were as restrictive for purposes of El Paso as choke points along the trail were to infiltration since throughput capabilities in 1967–68 fell far short of I Corps tactical zone requirements combined with those for the Bottleneck TAOR (map 5).

Port Clearance Capacities

Da Nang could have handled all dry cargo requirements under adverse weather conditions with room to spare, but the capability to shift supplies and equipment north from that port was inadequate during the period under consideration. POL distribution problems were equally perplexing.

Coastal waterways and railroad. The cheapest way to move freight is by water or rail, but neither alternative showed much promise. Floods, tides, and littoral drift made a deep water port at Tan My impractical despite repeated proposals, while logistics-over-the-shore at Wundar Beach to the north were infeasible during the northeast monsoon. There was ample room for more landing craft ramps at Cua Viet but no way to move inland. Seabees figured that it would take 14 battalion months to build a road across coastal swamps.

The railway trunkline was unserviceable, and prospects for its early rehabilitation appeared dim given the number of demolished bridges between Da Nang and Dong Ha, including a colossal one over the Perfume River at Hue. Some optimistic members of the Vietnamese Railway System wagered that in 70 days the line could be renovated for single-track, daylight operations at 10 miles per hour given sufficient physical security, and U.S. engineers generally agreed. They noted that North Vietnamese trains managed to run part of the time despite savage aerial bombardment.

Highway 1. Upgrading had already shifted into high gear on Highway 1 with elements of seven Seabee battalions along with a U.S. Army engineer group and civilian contractors rapidly widening and paving the road, straightening hairpin curves in Hai Van Pass, creating turnarounds, strengthening bridges, and improving drainage. Capacities increased accordingly.

tasks for Army engineers. Restrictions consistent with the accomplishment of assigned missions were designed to keep tonnages down since aerial delivery would have to suffice until those tasks were complete. Few vehicles were to accompany assault echelons, rapid evacuation of personnel casualties and inoperative equipment promised to reduce requirements for medical and maintenance facilities in the TAOR, and no base camps were to be built in Laos at any time.

The optimum time to spring the trap would have been in November before the communist commissaries in Laos began to replenish depleted larders in the South. There was no mandate for Task Force Bottleneck to search and destroy once it cleaned out the base area around Tchepone since the mission was merely to barricade the Ho Chi Minh Trail until the southwest monsoon again soaked Laos. The only remaining question was whether American logisticians could sustain a three-division corps so far from established facilities.

Logistical Limitations

The support structure needed for El Paso existed within 10 or 12 miles of the Tonkin Gulf. Most dry cargo ships unloaded in the port of Da

the mission was to barricade the Ho Chi Minh Trail until the southwest monsoon again soaked Laos

Land Lines to Laos

The only feasible supply route between the Tonkin Gulf and the TAOR lay directly south of the DMZ where it was painfully exposed to enemy action. No suitable alternative was available.

Route 9. The maximum capacities of Route 9, which were adequate for the Marines at the Khe Sanh combat base, looked ludicrous compared with the tonnages required by El Paso. Enemy sappers had blown half of the 36 bridges east of Khe Sanh and the ticklish bypasses cut in hillsides were impassable to heavy trucks. The roadway, averaging 12 to 14 feet wide, had been originally surfaced with asphalt prime, a bituminous treatment less than an inch thick. Some of it remained in 1968, buried under mud slides and debris, but much was gone and shoulders (where they existed) were simply soil. Glutinous gumbo would grip tires like molasses or cause wheels to slide during rainy seasons unless Route 9 received a solid waterproof surface.

Petroleum pipelines. Quang Tri and Thua Thien Provinces in 1967–68 had barely 10 miles of 6-inch petroleum pipeline, which could pump 756,000 gallons a day. Every drop of precious fuel for Khe Sanh consequently had to be trucked over Route 9. There was no possible way to satisfy the task force’s insatiable thirst for POL short of extending that embryonic pipeline system into

Laos or paving the road for use while the north-east monsoon pelted South Vietnam.

Rehabilitation

El Paso planners assigned a high priority to both road and airfield rehabilitation inside Laos beginning on D-Day because blocking positions astride the Ho Chi Minh Trail would have been logistically unsupportable otherwise. Plans consequently called for combat engineers to arrive by air and for others to follow closely behind ground linkup parties attacking west from Khe Sanh.

Route 9, degraded by bomb craters, blasted bridges, erosion, and the encroaching jungle, was in sad shape on the Laotian side of the border, but construction crews, confident of adhering to tight schedules shown in figure 4, predicted that convoys could truck in 750 short tons a day as far as Muong Phine within three weeks. Few streams would have demanded spans in dry season except the Banghiang River at Tchepone, where progress would be stalled for a day as engineers constructed a floating bridge once they cleared assembly areas and prepared approaches through a welter of water-filled craters. Subsequent action to widen rights of way and scrape out forward support areas where trucks could dump their loads would have taken somewhat longer (figure 5).

Suitable materials could have come first from remote basalt beds just west of Khe Sanh, then from dry stream beds of many Pon River tributaries with their rocky bottoms and steep banks. There would have been no rush to widen Route 9 as far as Muong Phine, garrisoned at most by one or two light ARVN airborne brigades.

No airfield in the Bottleneck objective areas would have been serviceable on D-Day. Those at Tchepone and Muong Phine required immediate action to clear obstructions, grade and compact surfaces, apply dust palliatives, then construct taxiways, parking lots, and cargo-handling areas. The runway at Ban Houei Sane looked like moldy cheese in mid-1968 but was otherwise almost as good as new. D+11 was not an unreasonable date to anticipate full operational status.

The Upshot

El Paso was a stillborn operation. Westmoreland never got the tickets to go to Tchepone, which consisted of added muscle—firepower, mobility, supplies, equipment, funds, and above all political approval. President Johnson announced his decision not to seek reelection in March 1968 and Richard Nixon, his successor, initiated the Vietnamization program that led U.S. forces and military presence in Southeast Asia to shrink instead of expand.

Figure 4. Road Openings

Section	Miles	Condition	Streams	Days	Completion
Lang Vei to Lao Border	7.4	Poor	6	3	D+2
Lao Border to Ban Houei Sane	4.4	Fair	7	1	D+3
Ban Houei Sane to Ban Dong	8.7	Poor	10	4	D+7
Ban Dong to Tchepone Airfield	17.4	Fair	30	5	D+12
Tchepone Airfield to Muong Phine	20.5	Fair	19	5	D+17

Figure 5. Dual-laning Route 9

Section	Miles	Engineer Companies	Days	Completion
Lang Vei to Ban Houei Sane	11.8	3	37	D+40
Ban Houei Sane to Ban Dong	8.7	2	40	D+47
Ban Dong to Tchepone Airfield	17.4	3	54	D+66



Army

U.S. Marine Corps

Convoy moving along Route 9.

No one will ever know whether El Paso could have succeeded. The operation would have been difficult with or without a determined enemy in the empty lands west of Khe Sanh—remote from existing bases and subject to the rigors of merciless terrain, heat, malarial fever, and leeches. Moreover, unopposed operations appear improbable because Hanoi wanted to maintain motorable routes through Laos, which was the lifeline for their forces in South Vietnam and Cambodia.

General Giap, who could read a map as well as Westmoreland, might have framed his own mission as follows: “Task Force Spoiler severs Routes 1 and 9 between the Tonkin Gulf coast and Laos beginning at H-Hour on D-Day to prevent U.S. and puppet forces from blocking the Ho Chi Minh Trail.” Bottleneck would have been on a knife edge of existence if NVA forces successfully isolated Da Nang from the TAOR while blockading brigades survived on daily replenishment and logisticians struggled to build up supplies in objective areas. A few well-placed mortar rounds on airfield runways at Muong Phine, Tchepone, and Ban Houei Sane, plus attacks on ammunition and POL, would have been particularly effective. The Bottleneck corps might have repulsed all such efforts, but the price in blood and sweat, if not tears, almost surely would have been high.

Lam Son 719

Vietnamization was intended to bolster South Vietnam while reducing American casualties, cutting expenses, and enabling the U.S. military to withdraw began to unfold in 1969, soon after Richard Nixon became President. Soon he called for a strictly South Vietnamese incursion into Laos to test the program. ARVN I Corps, less U.S. advisers but with U.S. tactical air, helicopter, and long-range artillery support, launched Operation Lam Son 719 on February 8, 1971 to interdict the trail and obliterate the enemy base area around Tchepone; but neither U.S. nor ARVN forces completed the logistical preparations that OPLAN El Paso prescribed.

The outcome was predictable: Lam Son 719, said one South Vietnamese general, “was a bloody field exercise for ARVN forces under the command of I Corps. Nearly 8,000 ARVN soldiers and millions of dollars worth of valuable equipment and materiel (including more than 100 U.S. helicopters) were sacrificed” before the last troops withdrew on March 24. The enemy death toll was high and ARVN raiders destroyed large stores of enemy supplies but, in the final analysis, Lam Son 719 had few if any lasting effects on infiltration down the Ho Chi Minh Trail.

JFQ