

AD-A264 506



(2)

Night Jungle Operations

A Monograph
by

Major Thomas B. Bennett
Special Forces

DTIC
ELECTE
MAY 19 1993
S A D



School of Advanced Military Studies
United States Army Command and General Staff College
Fort Leavenworth, Kansas

First Term AY 92-93

Approved for Public Release; Distribution is Unlimited

93 5 10 024

93-11063



06/01/93

MONOGRAPH

NIGHT JUNGLE OPERATIONS

MAJ THOMAS B. BENNETT, USA

SCHOOL OF ADVANCED MILITARY STUDIES
ATTN: ATZL-SWV
FORT LEAVENWORTH, KANSAS 66027-6900
COM (913) 684-3437 AUTOVON 552-3437

APPROVED FOR PUBLIC RELEASE; DISTRIBUTION
UNLIMITED

SEE ATTACHED

NIGHT OPERATIONS
JUNGLE WARFARE
JUNGLE OPERATIONS DOCTRINE

55

UNCLASSIFIED

UNCLASSIFIED

UNCLASSIFIED

UNCLASSIFIED

ABSTRACT

NIGHT JUNGLE OPERATIONS by Thomas B. Bennett, USA, 55 pages.

This monograph examines the adequacy of current jungle and infantry doctrine in addressing the conduct of night operations in a jungle environment. Daytime jungle operations already have much in common with night operations in general due to the limited visibility afforded by the dense vegetation. The degree of difficulty increases dramatically when operating during darkness. Such operations require a thorough understanding of why, when, and how to conduct them.

This monograph first examines the night jungle operations conducted during WWII and the Vietnam Conflict to gain a historical perspective of the types of operations conducted in the past as well as their success. It then reviews and analyzes current doctrine for night fighting to determine its applicability to a jungle environment.

Next, the monograph contrasts past night jungle operations with current doctrine and concludes that current doctrine does not sufficiently address the conduct of night jungle warfare. Lastly, the monograph offers some recommendations for inclusion to doctrine to address the shortcomings identified.

Night Jungle Operations

**A Monograph
by**

**Major Thomas B. Bennett
Special Forces**



**School of Advanced Military Studies
United States Army Command and General Staff College
Fort Leavenworth, Kansas**

First Term AY 92-93

Approved for Public Release; Distribution is Unlimited

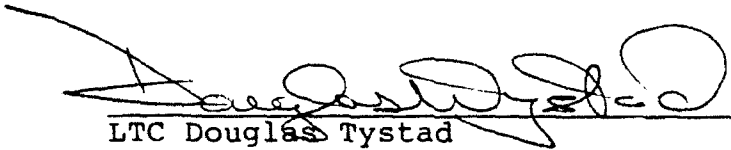
SCHOOL OF ADVANCED MILITARY STUDIES

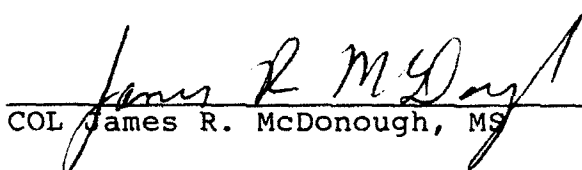
MONOGRAPH APPROVAL

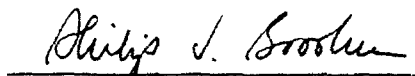
Major Thomas B. Bennett

Title of Monograph: Night Jungle Operations

Approved by:


LTC Douglas Tystad Monograph Director


COL James R. McDonough, MS Director, School of
Advanced Military
Studies


Philip J. Brookes, Ph.D. Director, Graduate
Degree Program

Accepted this 19th day of February 1993

ABSTRACT

NIGHT JUNGLE OPERATIONS by Thomas B. Bennett, USA, 55 pages.

This monograph examines the adequacy of current jungle and infantry doctrine in addressing the conduct of night operations in a jungle environment. Daytime jungle operations already have much in common with night operations in general due to the limited visibility afforded by the dense vegetation. The degree of difficulty increases dramatically when operating during darkness. Such operations require a thorough understanding of why, when, and how to conduct them.

This monograph first examines the night jungle operations conducted during WWII and the Vietnam Conflict to gain a historical perspective of the types of operations conducted in the past as well as their success. It then reviews and analyzes current doctrine for night fighting to determine its applicability to a jungle environment.

Next, the monograph contrasts past night jungle operations with current doctrine and concludes that current doctrine does not sufficiently address the conduct of night jungle warfare. Lastly, the monograph offers some recommendations for inclusion to doctrine to address the shortcomings identified.

UNCLASSIFIED 5

Accession For		
NTIS	CRA&I	☒
DTIC	IAB	☐
Unannounced		☐
Justification		
By		
Distribution/		
Availability Codes		
Dist	Avail and/or Special	
A-1		

Table of Contents

	Page
I. Introduction.....	1
II. World War II Study	
The Japanese.....	4
The Americans.....	10
Analysis.....	16
III. Vietnam Study	
The VC/NVA.....	19
The Americans.....	25
Analysis.....	30
IV. Doctrine Review/Analysis.....	33
V. Conclusions.....	37
VI. Recommendations.....	39
Endnotes.....	48
Bibliography.....	53

SECTION I: Introduction

The predominate thinking among historians is that the enemy "ruled the night" in Vietnam. The United States Army has heard the accusations that one of its failures during the conflict was its inability to operate effectively at night, or more accurately, to prevent the enemy from doing so. This has led to the prevalent attitude that the U.S. Army, when operating in a jungle environment, must conduct extensive night operations in order to ensure no repetition of this phrase in the future. Unfortunately, some of the most fervent advocates of night jungle operations lack jungle warfare experience and possess no conception of the complexities involved.

Conditions of jungle terrain vary greatly from forested mountains to swamp areas. Tropical areas are catagorized as primary jungle, secondary jungle, or deciduous forests. They may contain single, double, or triple canopy overgrowth and usually contain dense undergrowth. It can be said that there is no such thing as "typical jungle country". The features common to all such areas are a lack of roads and railways, limited cross-country movement for vehicles, and limited visibility for both air and ground forces.¹

Daytime jungle operations, by their nature, already have much in common with night operations: an emphasis

on the supreme importance of control, the need for limited objectives, the difficulty in keeping direction, the difficulty in using covering fire, the reliance upon the ear rather than the eyes, and the need to allow plenty of time for an operation.² These factors are further compounded when attempting to operate in the jungle at night.

The current edition of FM 90-5 Jungle Operations contains only a single reference to night operations. It states "since night operations, especially ambushes, are common in jungle fighting, units should emphasize night training".³ It offers no planning or training considerations to assist commanders in their preparations nor does it address the types of night operations conducive to jungle fighting or the scale upon which they should be undertaken. Most importantly, it fails to provide any special techniques which may aid in their execution.

Current infantry doctrine contained in FM 7-20 The Infantry Battalion and FM 7-10 The Infantry Rifle Company proclaims that limited visibility is the basis for infantry operations.⁴ It offers tactics, techniques, and procedures for such operations but only as they pertain to the attack and defense. Also, the doctrine relies heavily on technology which may not be useable in all environments.

This monograph asks the question of whether current U.S. Army doctrine sufficiently addresses night operations. To do this, the first section will examine the night jungle operations conducted, and the tactics, techniques, and procedures utilized in World War II and in the Vietnam Conflict to determine how night jungle operations were conducted as well as their degree of success. Although there were many different nations involved in these two conflicts, this monograph will only focus on the U.S. and its principle enemies' jungle operations.

Following the historical examination, the monograph will then review current doctrine for night fighting in order to determine its applicability to a jungle environment. By contrasting past night jungle operations with current doctrine, the monograph will then offer some conclusions as to the adequacy of current doctrine for night jungle warfare. Lastly, some recommendations for inclusion to doctrine will be provided to address the shortcomings identified.

Jungle fighting is not a new phenomenon to the United States Army. Extensive jungle operations were conducted in the Pacific and China-Burma-India (CBI) Theaters during World War II and in Vietnam twenty years later. Unstable regimes in Latin America and our increasing involvement in the counterdrug campaign may

well find the United States involved in jungle warfare again in the future. To preclude failure and avoid having to expend time and effort developing effective techniques it is essential that we have a thorough understanding of night jungle warfare and possess a coherent doctrine for conducting both day and night jungle operations.

SECTION II: World War II Study

The Japanese

We were too ready to classify jungle as impenetrable, as indeed it was to us with our motor transport, bulky supplies, and experience. To us it appeared only as an obstacle to movement and to vision; to the Japanese it was a welcome means of concealed maneuver and surprise.⁵

With those words, Lieutenant General William Slim demonstrated that he fully understood the manner in which the Japanese viewed the jungle. They conducted extensive night jungle operations during World War II in both the Pacific and CBI Theaters. In fact, Colonel G.C. Thomas, Chief-of-Staff of the 1st Marine Division, stated that he and his officers felt that the Japanese placed so much stress on night fighting that they were unable to fight well in the daytime.⁶

The Japanese preferred to operate exclusively at night whenever possible. They conducted numerous movements, infiltrations, and attacks during the hours of darkness. They were skillfull in their use of

disguises, silent movement by night, and movement along jungle paths and waterways when they wished to get between and behind enemy defenses.⁷

Japanese essentials for the success of night operations were simplicity, maintenance of direction, control, and surprise.⁸ Simplicity was maintained by assigning limited objectives and developing a simple plan. Direction was maintained by compass, guides, choosing unmistakable natural and artificial features to march on, and sometimes by 5th columnists who would light bonfires to serve as points to march on. Control was maintained by selecting objectives on well defined terrain features such as hilltops. Stealth, silent movement, and ruses facilitated surprise.

The Japanese devoted an enormous amount of time to night training. Night maneuvers played an important part in the training of troops of all arms. A concerted effort was made to get every combat soldier out at least once a week on some sort of night problem. Commanders emphasized individual, section, and platoon exercises. Even during basic training, soldiers were tasked to conduct individual night movements through dense jungle in order to familiarize them with conditions of darkness.⁹ The Japanese troops designated for the attack on Hong Kong devoted more than one half of the six weeks of intensive preparatory training to night

operations.¹⁰

Japanese doctrine called for the use of infiltration methods in all types of terrain under any condition, particularly at night.¹¹ Describing his Burma Corps' nine hundred mile retreat across Burma in 1942, LTG Slim wrote that "time and again the Japanese put in infantry attacks, attempting to infiltrate under cover of darkness and shelling".¹² At times, large units were infiltrated for the purpose of conducting an attack but more often small units were infiltrated to harass or interdict key targets.

A favorite Japanese tactic was to infiltrate at night between enemy fighting positions and persuade troops new to the area to engage each other in fire. Often, infiltration parties were tasked to silence positions with bayonets or knives, cut the wire lines leading from forward positions to the rear, or emplace demolitions on artillery or other key rear areas.¹³

The notebook of a Japanese lieutenant of the 80th Infantry Regiment described in detail their infiltration tactics. A typical mission was to assault for the demolition of an artillery firing position or some other key facility. The strength of the infiltration party varied from five to thirty men, usually about fifteen. The party consisted of demolition and security teams wearing enemy uniforms if available. Prior to the

infiltration and attack a thorough reconnaissance of the objective and route was accomplished. The party began its approach from a "concealment point" five to six hundred yards from the objective. The approach was made across the most difficult terrain with the infiltration party crawling the last one hundred yards. The Japanese felt that the most opportune time to conduct the operation was between 0200 and 0300 or one hour after the moon had set.¹⁴

In addition to night infiltration, the Japanese also stressed large and small scale deliberate night attacks and counterattacks. The large scale attacks were usually conducted by battalions of three to four hundred men in a headlong rush heralded by shouting.¹⁵ If forced to withdraw, parties of Japanese who had formed part of the attacking forces occasionally remained concealed near the enemy perimeter and ambushed mopping-up patrols when they moved out of their defenses at daylight.

More often, the Japanese attacked with small groups of men (approximately fifty) against limited objectives which had previously been definitely located. A U.S. War Department note to Task Force Commands described Japanese night operations as being:

characterized by stealth and a sudden attack with knives or bayonets. Firearms are used sparingly, but noises to simulate firing are frequently employed to confuse the enemy. Attempts are made to outflank and surround

defensive points and cut their communications to supporting and adjacent units.¹⁶

The Japanese placed special emphasis on gaining a thorough knowledge of the terrain and disposition of hostile forces when preparing for an attack. If time permitted, successive patrols reconnoitered the enemy positions. These patrols normally consisted of five or six men, never more than ten, and at least one was sent out during the hours of darkness. Often, they would maneuver as close as possible to the objective and induce the defenders to fire in order to reveal strength and positions.¹⁷ Patrols also obtained information on obstacle emplacement. Forward outposts were established and maintained in the vicinity of the objective to observe any new developments. When possible, all personnel tasked to participate in the attack were afforded an opportunity to view the objective.

Soon after dusk, a patrol prepared the approach route. The route typically followed continuous terrain features such as trails or ridge lines in order to facilitate the maintenance of direction. White paper, ropes, or people were used to mark the route.

The attacking unit usually approached in a line of columns to ensure control. Left and right security was positioned thirty to fifty yards from the column during movement. Runners maintained communications with

battalion headquarters.

Most commanders maintained one platoon in reserve for use against enemy counterattacks or to use for a flank attack. Each platoon participating in the attack designated demolitions teams whose mission was to cut the wire entanglements in front of the enemy positions. Commanders allowed two to three hours for one man to accomplish this and one and one half to two and one half hours for two men.¹⁸

As the attacking force approached the objective, a brief halt was conducted approximately three hundred yards short of the objective to make final preparations. The force then moved slowly and with stealth to their assault positions. When the commander ordered the assault, the force rushed the enemy positions with great energy, but silently and without fire. Normally, the goal was to take the objective by use of the bayonet only.¹⁹

The Japanese preferred to assault from the rear whenever possible. Ruses from the opposite direction of the planned attack were often conducted in an attempt to confuse the defenders. A hidden soldier working his rifle bolt back and forth, lighting fire crackers, or yelling in English were typical ruse techniques.

Following a successful attack, the commander would reorganize his force for the defense and send out

patrols for security.

In addition to conducting attacks during darkness, the Japanese also preferred to conduct their counterattacks exclusively at night. Even if they lost a particular position early in the day, they generally waited until dark before attempting to recapture it. If the first attack was unsuccessful, a second or even a third assault was ordered.²⁰

Other techniques employed by the Japanese to assist them in their night fighting were the wearing of enemy uniforms or civilian attire to deceive the enemy and the "hugging" of enemy positions. "Hugging", concealing themselves as close to the enemy as possible, was a favorite tactic of the Japanese at night in order to escape the effects of artillery fire. They also made considerable use of their 70mm mountain guns and mortars, preferring to fire them at night while enemy artillery was firing in order to give the illusion of short rounds.²¹

The Japanese preferred night jungle fighting and trained and operated accordingly. Such was not necessarily the case with the Americans.

The Americans

But their ground tactics were generally straight forward enough: the Americans attacked in force during the day and hunkered down at night within their defensive perimeters...The Americans shot at anything

that moved after dark, including not only the enemy but water buffalo and GIs outside the perimeter.²²

Anthony Arthur's quote from Bushmasters, although possibly not entirely accurate, aptly describes the defensive nature of American night jungle tactics during WWII.

Following the campaigns in Guadalcanal and the Philippines, captured Japanese documents noted that "at night [the Americans] generally remain at rest in the position where sunset finds them" and "they almost never make night attacks".²³

The Japanese realized early in the fighting that Americans mainly used the hours of darkness to better their defensive preparations. They anticipated that the Americans would continue to make use of superior firepower and not engage in night fighting due to the organization of their military forces, national characteristics and habits.²⁴ It was a point of which the Japanese thought they could take advantage.

The U.S. War Department's Notes to Task Force Commands in Pacific Theaters in 1943 stated that:

Night operations, when properly organized, constitute one of the most effective and economical methods of advancing, closing with the enemy, and capturing important objectives. When linked with daylight operations they permit continuous pressure to be maintained.²⁵

The tactics it set forth for night jungle attacks were:

Preliminary to the night attack, a survey must be made to determine the location of the outline of the hostile position and the exact positions of machine guns, mortars, and artillery. Units making the night attack should be given limited objectives, located preferably on conspicuous landmarks. Unmistakable routes of advance must be designated and definitely marked by advance parties. Infiltration parties are given the specific missions to destroy machine guns, automatic rifles, and mortar positions; enemy command posts; and radio transmitters.²⁶

In reality, American forces rarely conducted night attacks while in the jungle. In fact, the same publication which issued methods on how to execute a night attack seemingly contradicted itself by stating "In order to avoid ambush, troops should be moved by daylight through thick country".²⁷

An Australian brigade commander, acting as an Allied observer of the fighting in New Guinea, noted the difficulty in conducting night attacks due to the loss of direction and the fact that the Japanese used alternate positions. He felt that attacks at meal times were most successful and usually caught the enemy off guard or in bunches.²⁸

Another observer reporting on the Guam and Leyte fighting noted that it was rarely practicable to make large movements at night in that theater. He added that the time of attack was varied but that he found it necessary to allow troops at least one and one half hours after daylight for procuring their breakfast and

preparing for the attack.²⁹

Further evidence of Americans preferring not to attack at night in the jungle comes from combat reports from the Pacific late in the war which revealed the increasing effectiveness and success of US night attacks once operations shifted from jungle to open terrain.³⁰

The Americans did, however, attempt to emphasize night training in their combat preparations. The following portions of the jungle training guide for unit commanders attest to this:

- To obtain realism, problems should be conducted in actual jungle type country at night and the enemy should always be represented by actual personnel.
- Movements of infiltration groups by day and night to attack enemy trucks, gun and tank parks, command posts, and convoys.
- Practice troop movements of all arms at night without lights to attack or occupy defensive positions.
- Marking of routes by guides with luminous or other markers.
- Hand to hand combat at night.
- Training of runners, animal or bird calls, pyro, and recognition signals between patrols.³¹

However, like night attacks, night training was generally not conducted. Troops interviewed following the fighting at Leyte expressed the view that their training was sound and that the methods they had used in the past against the Japanese were useful. They felt, though, that greater emphasis in training needed to be placed on night patrols and night movements near the

enemy lines.³²

The Japanese actually initiated the majority of the night jungle fighting in which American forces participated. An example of typical night actions occurred at Breakneck Ridge in Leyte. During the eleven days of fighting, the 24th Infantry Division attacked during the day and dug in at night to hold their gains. The Japanese had an elaborate system of trenches and spider holes. They used reverse slope defense to negate the effects of American artillery and counterattacked at night or tried to infiltrate.³³

Accordingly,

It was found advantageous to establish a night perimeter before dusk. An early establishment of the perimeter enabled the troops to take effective countermeasures against Japanese infiltrations and night assaults. The soldiers also had an opportunity to become familiar with their surroundings and were less likely to fire indiscriminately during the night.³⁴

Similarly, commanders fighting on Guadalcanal instructed that "when the attack extends into the afternoon, select the night positions for your unit, dig in, and establish your coordinated defensive fire plan for all weapons before darkness".³⁵

Having learned that the Japanese attacked and counterattacked almost exclusively at night, the Americans devised night defensive tactics to counter the actions. Commanders advocated the following methods:

- deceive enemy daylight reconnaissance by changing dispositions after dark, using false fronts and flanks by day, and pushing forward false flanks at night.
- establish standing patrols at dusk close to the enemy flanks on routes which he may use for outflanking movements by night.
- watch all routes well beyond the perimeter of the defense.
- push offensive detachments well beyond the defensive area to strike enemy flanking forces in the rear.
- use trip wires and other alarm signals.³⁶

Patrols disposed around the perimeter of the defense had the mission of engaging and destroying enemy patrols as they approached. Ambush was the preferable method. Barbed wire in double apron fences to canalize the enemy comprised the obstacle system. After discovering the adeptness of the Japanese at cutting the wire during the hours of darkness, the Americans began to emplace numerous noise making devices on the wire.³⁷

Commanders also liked to employ tanks in the defense at night. Some felt that they should be placed well within the infantry defensive perimeter and be assigned whatever fields of fire were available.³⁸ Others felt that they should not be employed as stationary pillboxes but kept in covered positions close to the Main Line of Resistance, ready to repel enemy thrusts along trails or roads.³⁹ Both methods were used extensively.

The Americans discovered three techniques for illuminating the jungle battlefield at night to support

their defense: 1) anti-aircraft searchlights directed and focused against low hanging clouds so that the reflection fell to the target area and approximated moonlight, 2) 60mm illumination flares were considered the best for disclosing enemy surprise attacks and observing direction of night fire by providing twenty-five seconds of 100,000 candlelight power, and 3) aircraft flares hung from trees and ignited by electrical detonaters provided three minutes of 850,000 candlelight power but suffered the disadvantage of being irreplaceable during any one period of action.⁴⁰

American views of night jungle fighting differed dramatically from those of the Japanese. Both met with varying degrees of success. An analysis of these two jungle fighting experiences will highlight the lessons that should have been learned and applied to doctrine.

WWII Analysis

"Island hopping" characterized the American Pacific Theater strategy. The Japanese bitterly opposed it and once engaged, fighting forces generally maintained constant contact. The Americans attacked almost daily while the Japanese counterattacked nightly.

Throughout the war, the Japanese favored extensive night operations to include movements, infiltrations, attacks, and counterattacks. The Americans, meanwhile, seldom conducted any type of offensive night operation,

preferring instead to dig-in and repel Japanese counterattacks. They did conduct limited patrolling, mainly ambushes along the approaches to their defenses, to enhance security and provide early warning.

The Japanese initially enjoyed huge successes in Malaya and Burma. They accomplished limited success against American forces which were not knowledgeable of Japanese tactics early in the war. However, the Americans quickly learned how to counter Japanese night tactics. Attacks were necessarily always preceded by extensive reconnaissance to determine the location and disposition of the defense. Colonel Merritt Edson, commander of the 5th Marines at Guadalcanal, noted that "the Japanese night attacks have limited objectives, sometimes withdrawing after dark as much as fifty yards will fool them and they will not know where you are".⁴¹ If the Japanese failed to find the defenses where they had expected they became confused and leaders lost control. Slim noted "I had not realized how the Japanese are thrown into confusion by the unexpected".⁴²

Through training and experience the Americans learned not to get excited by noise in the jungle at night. Master Gunnery Sergeant R. M. Fowle of the 7th Marines noted "the Japanese make noise to mislead us, they shot off some fire crackers at the start but we have learned that where the noise is, he ain't".⁴³

Troops quickly learned to expect an attack if they fired a weapon at night. Training emphasized firing at observed targets only and that the answer to noise was usually silence.

The Americans also quickly realized that the Japanese often followed distinct terrain features when maneuvering to an objective at night in order to assist in navigation. Accordingly, they covered the approaches with direct and indirect fires and sprinkled them with booby traps.

Generally, the Japanese conducted their night attacks in mass to ease control. By employing accurate artillery fire and carefully establishing fields of fire, the Americans usually annihilated the attackers. Artillery became particularly adept at creeping fires to within twenty-five to fifty meters of the defensive line in order to break assaults and negate the Japanese tactic of "hugging". Commanders learned that close and accurate indirect fire available immediately on request was one of the best methods for preventing casualties.

The Americans, based on observing Japanese operations early in the war, initially advocated night attacks but quickly realized the difficulty of successfully executing them in thick jungle terrain. Japanese defenses included spider holes and trenches in depth with reverse slope positions. It was more

advantageous to assault during the day and hold gains through the night. MG O. W. Griswold observed the Pacific fighting and reported "we learned to stop early enough in daylight to organize for the night".⁴⁴

In summary, night movements were successfully executed during WWII after prior route reconnaissance and marking. Night patrolling, mostly in the form of local ambushes to enhance security of defensive positions, was also successful. Night attacks were successful against untrained and ill-prepared troops but required extensive prior reconnaissance. Night attacks were unsuccessful against well trained and experienced defenders possessing ample firepower and knowledge of enemy tactics. All night jungle operations required extensive training.

Little of the American jungle experience in WWII made it into doctrine. Doctrine was primarily oriented on a European warfare scenario which, of course, excludes jungle. Accordingly, when the U.S. became involved in conflict in the tropical terrain of Vietnam, many lessons had to be learned once again.

SECTION III: VIETNAM CONFLICT

The Vietcong/North Vietnamese Army (VC/NVA)

Communist forces fighting in South Vietnam consisted of Local and Main Force Vietcong (VC) and North Vietnamese Army (NVA) regulars. Main Force VC and

NVA tactics were quite similar. Both employed hit-and-run tactics, although the NVA had a higher propensity to stand and fight. Both conducted battalion and regimental operations throughout the conflict but concentrated on small unit actions when operating in jungle terrain. And lastly, both sought to fight only on their terms, on the terrain of their choosing, and when assured of victory.

The VC/NVA favored night operations, both in and out of jungle terrain, in order to avoid American superiority in daylight detection and firepower. The findings of a 1968 Military Assistance Command Vietnam (MACV) Seminar on night operations noted that:

The enemy is not the superior night fighter by design. He has been forced to use the night...primarily to move supplies and personnel, maintain observation of friendly installations, harass and interdict friendly installations and roads, and to infiltrate to and from populated areas.⁴⁵

The VC/NVA placed great emphasis on night operations and trained accordingly. The benefits of silent and well-secured movement, assembly and dispersion were ingrained into each individual soldier.⁴⁶ Training was centered at the squad and platoon level and consisted of methods of attack, ambush, movement, scouting, and patrolling. The VC/NVA considered these activities instrumental to night operations. Leaders encouraged soldiers to solve their

own problems in an effort to promote confidence in themselves and other members of the unit. They found this emphasis was an immense aid to control at night.⁴⁷

The most frequent VC/NVA offensive tactic in jungle terrain was the ambush, day or night.⁴⁸ Ambushes were established on natural routes of movement, such as trails and streams, and sometimes remained in place several days. The time of emplacement was determined after studying enemy movement methods and ascertaining patterns of regularity. Generally, one third were mounted in the morning when the Americans habitually moved out of their bases to conduct daily operations while the other two thirds were scattered throughout the day and night.⁴⁹

Detailed reconnaissance and preparation were prerequisites for employing ambushes. The VC/NVA required extensive intelligence on the enemy, terrain, and the civilian population in order to establish the appropriate sized ambush in the most advantageous location, at the proper time, and with maximum security.⁵⁰

Night movement to an ambush site was over well chosen routes to avoid villages and roads as much as possible. Secondary ambushes, away from the site of the principal ambush, were frequently employed to destroy or delay any relief forces. Ambushes were also conducted in

conjunction with night attacks on isolated posts or installations to interdict relief forces.

The VC/NVA organized ambush forces into several teams: kill teams armed with rocket propelled grenades (RPGs), machine guns, and automatic rifles were placed in the center; stop teams with command detonated mines and recoilless rifles were located on the flanks to seal the kill zone; a support element with indirect fire weapons was located to the rear of the kill team; security teams were located on the flanks and rear to provide early warning; and lastly, a reserve was constituted if the force was large enough.⁵¹

The ambush was usually initiated with a command detonated mine and was a short, violent affair. If the ambushed force was overwhelmed and there was no apparent threat of local reinforcements, the ambushers quickly collected what enemy supplies and equipment they could, destroyed the rest, and withdrew. If not strong enough to destroy the ambushed force, the patrol leader terminated the action by prearranged signal and the force withdrew on several pre-selected routes.⁵²

The VC/NVA also used the cover of darkness to move supplies and personnel through dense jungle on hidden trails. If a battalion size or larger unit moved, it divided into company size columns. Liaison agents and scouts preceded the main body by a considerable distance

to evaluate the route and locate suitable bivouac sites. A reconnaissance/intelligence unit followed the scouts to mark the route and provide forward security.⁵³ If the Americans targeted a particular trail network, the VC/NVA would switch to alternate trails but revert back to the primary when the Americans focused their efforts elsewhere.

MACV outlined VC/NVA night attack tactical doctrine as follows:

- Attack by surprise and in secret.
- Take advantage of all favorable opportunities.
- Concentrate troops and firepower on the immediate objective and closely coordinate firepower and the reinforcing assault force.
- Penetrate the objective to isolate, encircle, and destroy the enemy.
- Take advantage of flexibility, skills, and independent fighting spirit.
- Make detailed combat plans and disseminate the information to the troops.
- Withdraw quickly from the action.
- Utilize all fundamental principles.⁵⁴

The purpose of an attack was to inflict casualties and capture equipment, not to hold terrain.⁵⁵ In reality, most VC/NVA night attacks were not actually conducted in dense jungle since the majority of American and ARVN bases were located in areas cleared of thick vegetation. However, a common tactic was to track American forces conducting search and destroy missions through thick jungle and then attack, probe, or harass their night defensive position. Individual to squad size

elements conducted probes; machineguns, mortars, and individual soldiers tossing grenades were used to harass; and platoon size units generally conducted an attack if a probe managed to penetrate the perimeter.⁵⁶

When planning an attack, reconnaissance teams consisting of one to three men observed the dispositions of enemy forces and reported them, typically by runner, to the commander. If time permitted, rehearsals were conducted to ensure each individual understood his role exactly. Reconnaissance and security teams guided the assault and support elements to their positions. The attack position was located as close to the defensive position as possible to prevent the enemy from using supporting indirect fires. After encircling and isolating the enemy force, sappers crept forward to clear lanes. Rocket launcher and mortar fire usually preceded the assault. Whether successful or not, the attacking force usually withdrew prior to daylight unless they enjoyed numerical superiority and there were no indications of a nearing relief force.

The VC/NVA preferred not to defend due to American superior firepower but if forced to, they generally tried to hold out during the day and then withdrew in small numbers at night to another of their many fortified areas. Unless their mission was to delay, when attacked in strength units smaller than a company did

not defend at all but instead immediately broke contact.

When the VC/NVA halted in dense jungle, small reconnaissance teams manned outposts and emplaced mines and booby traps on likely avenues of approach one to two kilometers from the position. If an enemy force approached, small elements attempted to divert them. If this failed and the position was attacked, they employed mortars and flank counterattacks on the attacking force throughout the day and withdrew at night.⁵⁷

Battalion defensive positions consisted of well concealed trenches, foxholes, bunkers, and tunnels. If attacked by a superior force, the unit in contact delayed while the remainder of the battalion withdrew along previously selected routes. The force in contact broke into small groups at night and also withdrew.⁵⁸

The proclivity of the VC/NVA to operate at night, especially resupply or personnel movements, coupled with the absence of front lines, required night operations by the Americans to interdict those efforts. The American forces had to once again learn the lessons of jungle warfare against an enemy adept at fighting and living in the jungles of Vietnam.

The Americans

By evaluating what must be accomplished at night, it was concluded that the enemy's ability to move at night, effect resupply, and harass friendly installations can be eliminated. The night ambush is ideally suited

to that end.⁵⁹

Such were the findings of a MACV seminar on night operations in Vietnam conducted in the aftermath of the 1968 Tet Offensive. General Westmoreland added that "U.S. units must take advantage of the enemy's weakened condition by placing greater emphasis on night operations".⁶⁰

Contrary to the belief of some, the U.S. often conducted night operations in Vietnam, both in and out of jungle terrain. Even small unit leaders realized their necessity. As platoon leader Lieutenant James McDonough noted, "night patrols would be essential to complete the disruption of the enemy".⁶¹

Ambushes were the primary method of night interdiction employed by the U.S. in Vietnam, especially in dense jungle. With some justification, night movements, at least by large units, and night attacks were rare. As Lieutenant McDonough observed:

The enemy...laid down the mines and knew where they were located. Patrols were risky enough in the daytime, but there was a chance that we could sight a clue to a booby trap location. At night, it was pure luck. Either you stepped on one or you didn't.⁶²

Indeed, moving cross country in the jungle could be as hazardous as travelling along a trail at night. One study noted that 34% of all boobytraps were emplaced along trails or paddy dikes while 36% were located in

jungle growth.⁶³ Accordingly, as one author noted,

It was customary in Vietnam, particularly in the jungle, to stop moving in mid or late afternoon, resupply, and dig in a hastily fortified position. We either did not resupply or did it in late afternoon, kept going until dark,⁶⁴ and shifted to night ambushes after dark.

MACV added:

The most successful night operations in RVN are conducted when the enemy comes to us. The use of strong night defensive positions and all available fire power are the best killers of the enemy in the night environment.⁶⁵

The 4th Infantry Division operated almost exclusively in jungle terrain near the Laotian and Cambodian borders. Approximately 70% of the Area of Operations was dense jungle with no visibility beyond twenty meters, often only ten feet. The objectives of their night operations were: To enhance defenses of fixed installations and forward bases, to destroy enemy forces in the area, to deny free movement to the enemy, and to gain tactical surprise.⁶⁶ To achieve these ends, they relied almost exclusively on night ambushes.

The 4th ID found night attacks in jungle terrain generally infeasible due to the difficulty of employing the M79 Grenade Launcher, 81mm mortar, hand grenades, artillery, Close Air Support, and controlling maneuver elements. Its policy was to undertake them only as a last resort and if the following conditions were met:

-limited objectives, well defined.

- enemy positions not extensive or prepared in depth.
- preponderance of force locally.
- surprise possible.
- troops have the will to engage the enemy in close combat.⁶⁷

MACV published a guide for attacking fortified positions in jungle which concurred with the assessment of the 4th ID. It outlined in detail the techniques which should be employed when assaulting a VC/NVA base camp. Although it did not specifically state that these attacks should be conducted only in daylight, it conveyed the impression that such an operation undertaken at night was inadvisable.⁶⁸

MACV did not advocate night attacks but it did stress night ambushes as a means of interdicting VC/NVA movement. The deliberate ambush was found to be the most effective and frequently employed tactic in dense jungle. Units could cover a large area, deny free movement, and facilitate destruction of the enemy. Success depended on detailed planning, thorough preparation, and continuous training and rehearsal.⁶⁹

Movement to the ambush site was usually timed so that arrival coincided with darkness.⁷⁰ In dense foliage, the assault team was placed within ten meters of the kill zone. Trip flares rigged in trees provided illumination of the ambush area in order to identify targets and render a dazzling effect on the enemy.

Patrol leaders usually detonated a claymore mine to initiate the ambush.

A variation of the deliberate ambush was a technique known as the ambush patrol. An ambush patrol was essentially a mobile listening post (LP) with a limited fighting capability designed to enhance the security of an organized position by providing early warning and disorganizing the enemy.

Ambush patrols were comprised of three to five men and employed in close proximity to a larger force. Their mission was to saturate the approaches to a base area and not return unless hotly pursued. They usually occupied their ambush sites during daylight and only moved in the event of enemy contact. If hit, they would immediately withdraw along previously selected routes to a predetermined position while directing artillery strikes against the enemy.⁷¹

A major theme of American operations in Vietnam was that night movements were generally considered infeasible. However, at times special situations dictated such operations: To gain position for a cordon and search, to position units for a search and destroy mission against a lucrative target, and to facilitate the withdrawal of a unit in contact.⁷² If an operation required a night movement, it was considered necessary to ensure the route was well reconnoitered and that

guides were employed to lead the main body.

The U.S. Army also experimented with new technology in Vietnam. A handheld thermal viewer (AN/PAS-7), radars (AN/PPS-5, AN/PPS-9), night observation devices (AN/TSS-7, AN/TVS-4), and the starlight scope (AN/PVS-2) were all added to the inventory. Each found utility in the open areas of Vietnam but limited usefulness in dense vegetation. Experiments determined that each item required a device-to-target line of sight free from solid objects.⁷³ In dense jungle terrain, with visibility often ten meters or less, this was generally not achievable.

The Americans emphasized night jungle operations in Vietnam much more than in WWII. This was due both to the nature of the enemy and the conflict. Their success, as well as the success of VC/NVA night operations, will be examined in the next portion of the monograph.

Vietnam Analysis

Vietnam was a war with no front lines. The VC/NVA strategy was to inflict casualties on American forces in an effort to exhaust their desire to continue the war. American strategy was to destroy the combat power of the VC/NVA faster than they could regenerate it resulting in the well known "body count".

Both the VC/NVA and the Americans conducted extensive night jungle operations. American superiority

in firepower forced the VC/NVA to use the night almost exclusively. Conversely, the ability of the VC/NVA to infiltrate personnel and supplies along jungle trails during darkness necessitated that the Americans operate at night to interdict those efforts. However, the types of night operations conducted differed accordingly. The Americans concentrated on night ambushes while the VC, in addition to ambushes, also conducted movements/infiltrations, attacks, withdrawals, and harrassments.

The VC/NVA favored night attacks but since most American bases were located in cleared areas, major attacks generally did not occur in jungle. However, they did harass and/or attack American night defensive perimeters established by units conducting search and destroy missions. The VC/NVA were often successful at harassing these positions with small probes or indirect fires but were rarely successful at overrunning them.

Similar to the experience in WWII, Americans came to view these probes or attacks as an opportunity to kill more of the enemy with accurate indirect fires and superior firepower. They also learned that they could avoid these attacks altogether if they so desired. Typically, Americans conducting search and destroy operations halted in late afternoon to prepare hastily fortified positions. Many units found that by continuing to move until dark and then establishing stay behind

ambushes to interdict enemy trackers they could eliminate most night mortar attacks and assaults since the enemy could not determine the exact location or disposition of the defense.⁷⁴ Americans relearned the lesson of WWII that firing at noises gave away positions and so leaders stressed fire discipline in training.

As in WWII, the Americans rarely conducted night attacks in jungle terrain. VC/NVA base areas were difficult enough to locate in the daytime even with good intelligence and nearly impossible at night. Units which habitually operated in dense jungle reported that the few attacks they attempted at night were failures.⁷⁵

Throughout the conflict, the VC/NVA successfully used the night to infiltrate and to transport supplies and personnel along well reconnoitered and marked trails. Trail networks were so numerous it was impossible for the Americans to interdict them all on a continuing basis. When forced from a particular trail, the VC/NVA merely transitioned to an alternate.

Both the VC/NVA and the Americans conducted numerous successful night ambushes. Stationary ambushes emplaced just prior to darkness were found to be more successful than mobile patrols since they lessened the chance of detection.⁷⁶

In summary, the VC/NVA conducted numerous successful night movements but also suffered from

American night ambushes which often successfully interdicted enemy trail networks if only temporarily. Any night attack conducted in jungle was generally repulsed. As discovered in WWII, successful night operations required good intelligence, detailed planning, prior reconnaissance, rehearsals, and well trained soldiers.

SECTION IV: Doctrine Review/Analysis

Were the lessons gained from our experiences in two wars translated into a doctrine which can serve as a guide for conducting future jungle operations, both day and night? A review of current doctrine demonstrates that basically they were not.

The Army Jungle Operations Manual, FM 90-5, contains only one passage concerning night operations. However, the infantry manuals (FM 7-10, The Infantry Rifle Company and FM 7-20, The Infantry Battalion) do contain tactics, techniques, and procedures for limited visibility operations. Accordingly, this section will analyze/evaluate the doctrine for limited visibility operations espoused in those manuals.

In introducing the role of the infantry battalion, FM 7-20 proclaims the following:

Limited visibility is the basis for infantry battalion operations. It is the environmental condition that the US military seeks to take

advantage of its technology and training. ...A combination of technical ability (afforded by NVDs [night vision devices]) and tactical prowess (afforded by training) allows the infantry battalion⁷⁷ to operate routinely during these conditions.

FM 7-20 describes the purpose of limited visibility operations as:

- to achieve surprise.
- to gain positions of advantage over the enemy by stealth.
- to exploit success and maintain momentum.
- to disrupt the enemy defense by infiltrating to key terrain in his rear
- to exploit⁷⁸ US technological and training advantages.

Current infantry doctrine discusses two types of limited visibility operations: the attack and the defense.

The doctrine states that attacks conducted during periods of limited visibility must be deliberate, not hasty, due to control problems that could result from a hastily developed plan. Plans must be simple, easily understood, and rehearsed to ensure soldier confidence and leader comprehension.⁷⁹ Planning considerations are the following:

- detailed reconnaissance of routes, objectives, obstacles, and attack positions.
- synchronization of overwatching and assault elements.
- visual control measures such as panels, luminous tape, or arm bands.
- surprise thru speed and secrecy.
- scheme of maneuver (attack in one direction only, no complicated movements).
- illumination.
- supporting fires (whether to use indirect

fires or not).
-communications (electronic, pyrotechnic).⁸⁰

For the actual execution of the attack, FM 7-20 concludes that the level of training and number of NVDs available determines the limited visibility assault technique employed. Further, a battalion conducts these attacks based on the same fundamentals as daylight assaults if it is equipped with sufficient NVDs. It does not discuss alternate techniques if NVDs are not available, however FM 7-10 does.

FM 7-10 lists three techniques which can be employed during limited visibility attacks: 1) using NVDs, 2) using illumination, and 3) using a modified linear assault if NVDs and/or illumination are not available. Units with sufficient NVDs normally conduct non-illuminated attacks in order to exploit their technological and training advantage. Illumination is planned if sufficient NVDs are not available or if the enemy possesses his own NVDs or illumination. Both FM 7-10 and FM 7-20 explain that the first two types of attacks, using NVDs and illumination, are conducted like daylight attacks.⁸¹

The third technique outlined in FM 7-10 for limited visibility attacks is the modified linear assault. Units use this tactic when neither NVDs nor illumination are available. Units are placed "on-line" to facilitate

control and use individual fire and maneuver to assault the objective. Doctrine warns that:

If the enemy has NVDs or a well-prepared defense with protective obstacles, this technique should not be used. An illuminated, supported attack conducted as a daylight attack may be ⁸²the most effective option in this situation.

The only other limited visibility operation discussed in current infantry doctrine is the defense. FM 7-20 contends that technology has changed how soldiers fight on the limited visibility battlefield. Its use by friendly forces reduces the enemy's advantage in an attack during limited visibility.⁸³ Doctrine explains that commanders must:

- use long range detection equipment (radar, sensors, NVDs) on well defined avenues of approach.
- increase surveillance of obstacles, enemy overwatch and assault positions.
- place some units and weapons along likely avenues of approach.
- plan illumination behind the enemy.
- begin movement to night defensive positions just before dark and complete ⁸⁴the return to daylight positions before dawn.

The emphasis in current infantry doctrine on technology to provide the basis for our ability to operate effectively during limited visibility does not take into account the varying environments in which U.S. forces may operate. NVDs are generally ineffective in jungle but current doctrine does not account for this. The next section of this monograph will address the

sufficiency of current doctrine for conducting night jungle operations.

SECTION V: Conclusions

WWII and Vietnam demonstrate that the most routinely conducted night operations in a jungle environment have been night movements, infiltrations, attacks/counterattacks, defense, ambushes, and withdrawals. Defenses, ambushes, and withdrawals have generally been successful if the force conducting them is well trained, led, and organized. Movements and infiltrations require extensive prior reconnaissance and are susceptible to interdiction by a determined foe possessing sufficient resources and willing to operate at night. Attacks have generally been ineffective and result in numerous casualties if the defender is well trained and organized and knowledgeable of enemy methods.

Current doctrine in FMs 90-5, 7-10, and 7-20 does not adequately address night operations in a jungle environment. The discussion of enemy tactics, organization of the defense, and ambushes contained in FM 90-5 is applicable to night operations, even though night operations are not specifically addressed. However, it fails to mention some of the proven techniques discovered during WWII and Vietnam such as shifting defensive positions after dark to confuse the

enemy and emplacing ambushes at dusk. It also fails to provide essential planning considerations for night operations such as detailed intelligence, prior reconnaissance, and simple plans, to name a few.

Current infantry doctrine is also insufficient for guiding commanders in the conduct of night jungle operations. It discusses only two types of night operations, attack and defense, and assumes applicability in all environments and situations. Its discussion of the conduct of limited visibility operations is rather general with a heavy reliance on technology to provide the edge for victory. It assumes that either NVDs or illumination can and will be utilized extensively. Although this may be true on many battlefields such is not the case in a jungle environment. The dense foliage and lack of ambient light render NVDs nearly useless while the overhead canopy significantly reduces any effect from illumination. Doctrine states that the only alternative would be to conduct the modified linear assault outlined in FM 7-10. However, it does not recommend this tactic for use against a well prepared defender.

The analysis of history shows that the lessons learned through the experiences of two wars are not reflected in current doctrine. FM 90-5 does not specifically address night jungle operations while the

infantry manuals' reliance on technology does not take into account its degradation in jungle terrain.

The valuable lessons gained from past experiences must be incorporated somewhere in our doctrine in order to provide commanders with a proven guide for conducting night jungle operations. The next section of this monograph will outline recommendations for inclusion to existing doctrine in order to provide commanders with a better understanding of night jungle operations. Most should be incorporated in FM 90-5 since it specifically deals with jungle warfare. The infantry manuals are general in nature and attempt to be applicable in a variety of situations and environments. However, a disclaimer should be added to the sections dealing with limited visibility operations which warns commanders that the tactics, techniques, and procedures outlined may not, and probably will not, apply to night jungle operations.

SECTION VI: Recommendations

The experiences of WWII and Vietnam have taught the U.S. Army many lessons concerning night jungle warfare which should not be forgotten! Doctrine must incorporate the lessons gained from past experience to ensure leaders tasked to fight in a jungle environment in the future possess a coherent doctrine to guide them. Some

aspects of night jungle operations are adequately discussed in current doctrine while most are only marginally addressed or not mentioned at all. The following lessons, extrapolated from past experience, should always be included in our jungle doctrine for consideration by commanders preparing to conduct jungle operations.

1. Know Your Enemy and His Tactics. This fundamental principle has been preached since the time of Sun Tzu and certainly maintains its validity in jungle warfare. An army cannot maintain the initiative and force the enemy to remain reactive unless the enemy's tactics are thoroughly understood. Certain night operations will not be effective against an enemy who is not susceptible to them. In Vietnam, American night ambushes succeeded against VC/NVA night movements because commanders understood enemy methods. Likewise, defensive techniques succeeded in WWII and Vietnam after enemy tactics were discerned and countered. FM 90-5 currently provides a good discussion of how potential conventional and guerrilla adversaries will probably operate in a jungle environment.⁸⁵

2. Attacks. METT-T must, of-course, always be considered when developing a course of action. However, as a rule-of-thumb, night attacks in the jungle should be considered infeasible and avoided! Past night attacks

have generally resulted in failure, unless conducted against unorganized and ill-prepared defenders. Even Japanese night attacks, initially successful, were soundly defeated once their tactics were understood and defenses were well organized. If a particular mission or situation dictates the requirement for a night attack, it should only be undertaken if the following are present:

- the enemy is occupying unprepared positions.
- well defined, limited objectives.
- detailed intelligence on the disposition of enemy defenses.
- well reconned and marked routes to the objective.
- adequate time to plan and rehearse.
- well trained soldiers and leaders.

FM 90-5 does not address the feasibility, or rather the infeasibility, of night attacks at all. FMs 7-10 and 7-20 advocate night attacks but rely heavily on technology which is largely ineffective in a jungle environment.⁸⁶

3. Movements. Night movement through jungle is possible but should only be conducted on well reconned and marked routes. Guides should be used whenever possible. As a general rule night movement, especially cross-country, should not be undertaken unless a thorough prior reconnaissance of the route is possible and a mission, such as positioning a force for a cordon and search or an early morning attack, dictates its

requirement. This is due to the difficulty caused by the ruggedness of terrain and the possibility of enemy interdiction by booby traps or ambushes. Indeed, experience in Vietnam demonstrated that night movements are easily susceptible to interdiction.

Current jungle and infantry doctrine does not address night movements. However, they should in order to ensure commanders are aware of their difficulty and to describe the prerequisites should one be deemed necessary.

4. Ambushes. In the jungle, the advantage lies with the force that waits. A force moving at night, especially a sizeable one, cannot avoid making noise regardless of the stealth attempted. Therefore, as demonstrated by the Americans in Vietnam, ambushes are probably the most effective means of interdicting an enemy who uses the night to transport supplies or infiltrate to and from an area.

Ambush locations should be based on good intelligence and the route should be well reconned. The Americans learned in Vietnam that the best time to emplace night ambushes is just prior to darkness. This allows speed during movement, pin-point location of the site, and facilitates the positioning of the force. Once in position, ambush forces should remain immobile to lessen the chance of detection. Mobile patrols should

only be undertaken after careful consideration of the situation.

Ambushes should be employed both as part of the security arrangements around bases and overnight defensive positions as well as for interdiction deep in the enemy's rear. Helicopters significantly enhance the ability to infiltrate and operate deep.

Doctrine, both jungle and infantry, credibly addresses the conduct of ambushes in general but should offer techniques on night employment such as stationary versus mobile patrols and establishing the site just prior to darkness.⁸⁷ These techniques are essential in jungle night fighting as demonstrated by the Americans in Vietnam.

5. Defenses. Current doctrine contained in FM 90-5 and the infantry manuals provides an excellent guide for establishing night defensive perimeters although infantry doctrine relies heavily on technology.⁸⁸ Most of the successful techniques employed in the past are already incorporated. However, the techniques of shifting positions by as little as fifty meters after dark or continuing to move until dark have been overlooked. Experience in WWII and Vietnam shows that these two techniques prevent the enemy from observing and determining friendly dispositions and degrades the effectiveness of attacks. Both should be

included in doctrine for consideration by commanders.

6. Training. The experiences of WWII and Vietnam demonstrate that night training, especially immediate action drills, hand-to-hand combat, navigation, noise and light discipline, and night firing is extremely important to enhancing a unit's ability to operate effectively at night. Forces should not attempt night operations without prior night training. FM 7-20 proclaims that US Army training enhances tactical prowess and the ability to operate during periods of limited visibility. Unfortunately, recent JRTC observations note that units currently perform poorly during night operations:

Units are weak at night operations...While we may not desire to search and attack at night, ambushes, reconnaissance, and denial of LOCs should be routine operations. Infantry companies do not exploit their night fighting capability...Units don't consistently use passive⁸⁹ or active defensive measures at night.

Night operations in the jungle are even more difficult than in the terrain experienced at the JRTC. Commanders should not expect units to successfully operate at night in a jungle environment without previous, extensive training. Night training instills confidence and lessens fears of the unknown.

FM 90-5 discusses training for jungle warfare in general but fails to address those areas which, based on

experience, should be emphasized for night operations.⁸⁹ FMs 7-10 and 7-20 do not address night training other than to state that it enhances tactical prowess. The vital importance of night training should be emphasized in doctrine.

7. Planning. Fighting in dense vegetation necessitates small unit operations. This aspect is even more apparent when operating at night. The experiences of WWII and Vietnam demonstrate that all jungle operations require detailed planning and decentralized execution, relying on the initiative of junior leaders who can operate within the commander's intent. FM 90-5 does not address or emphasize the absolute necessity of detailed planning prior to attempting any night operation. The infantry manuals credibly address its importance and FM 90-5 should also.

8. Rest. Forces conducting continuous night operations should be afforded the opportunity to rest during the day. Although day/night operations with minimal rest can be conducted for short periods, it should not be the norm. Forces tasked to operate nightly must be afforded time to rest. This is not addressed in current doctrine but should be to serve as a reminder to commanders.

9. Technology. Many items of high technology equipment which the U.S. Army relies on to conduct night

operations are not as effective in jungle terrain. Thermal sights (AN/TAS-4,5,6, AN/PAS-7) require light vegetation and are significantly degraded in jungle terrain. Starlight Scopes (AN/TVS-5, AN/PVS-4,5,7) require ambient light which the jungle canopy and vegetation prevents, thereby degrading their effectiveness. Ground Surveillance Radars (AN/PPS-5) require line of site which the ruggedness of jungle terrain often prevents, thus degrading its effectiveness. Accordingly, units training to conduct jungle warfare should train to operate without them since they have limited effectiveness. Conversely, Ground Positioning Systems (GPS) and Remote Battlefield Surveillance Systems (REMBASS) do have utility in jungle and can be used to assist in navigation and detection, respectively.

Since current doctrine relies so heavily upon technology during periods of limited visibility, the capabilities and limitations of technologically advanced equipment should be addressed.

The above subject areas should not be considered a complete guide to conducting night jungle operations. However, recent experiences in WWII and Vietnam demonstrate that each area addressed has relevance on the jungle battlefield and should be considered by

commanders tasked in the future to operate in tropical environments. Current doctrine does not sufficiently address these areas.

Night jungle warfare is difficult but not impossible. Some types of operations are more conducive to the night than others and are historically more successful. Doctrine is generally the first place leaders at all levels turn to for guidance when planning operations in an unfamiliar environment. Accordingly, we must ensure that it is inclusive of all aspects of operations which commanders may be tasked to execute in order to preclude repeating past mistakes and having to painfully learn, once again, the lessons of the past.

ENDNOTES

1. U.S. War Department, Notes for Task Force Commands in Pacific Theaters, (Washington D.C.: U.S. War Department, 6 Feb 1943), p.7.
2. W.A. Robinson, "Some Notes and Impressions on Exercise Jungle Jim and Jungle Warfare Generally", memorandum, (Ft. Benning, Georgia: British Army Liaison Office, 1953), App. A.
3. Department of the Army, Field Manual 90-5, Jungle Operations, (Washington D.C.: Headquarters, Department of the Army, 1982), p.3-4.
4. Department of the Army, Field Manual 7-20, The Infantry Battalion, (Washington D. C.: Headquarters, Department of the Army, 1992), p.1-1.
5. William Slim, Defeat into Victory, (London: Papermac, 1986), p.118.
6. "Close-up of Guadalcanal", Verbatim Statements of Participants, 1 Feb 1943, p.9.
7. U.S. War Department, Military Intelligence Division, "Notes on Japanese Warfare", Information Bulletin No. 8, (Washington D.C.: U.S. War Department, 7 Feb 1942), p.9.
8. General Headquarters, India Military Intelligence Directorate, Japanese in Battle, 2nd Edition, (Delhi India: Manager of Publications, Aug 1944), p.15.
9. Notes for Task Force Commands in Pacific Theaters, p.22.
10. Ibid., p.8
11. Ibid., p.12.
12. Slim, Defeat into Victory, p.69.
13. Notes for Task Force Commands in Pacific Theaters, p.12.
14. U.S. War Department, "Notes from Theaters of War No. 18: Pacific 1943/1944", (Washington D.C.: U.S. War Department, Dec 1944), p.
15. Ibid., p.10.

16. Notes for Task Force Commands in Pacific Theaters, p.14.
17. Headquarters Army Ground Forces, U.S. Army War College, "Combat Lessons Gained from Overseas Observations", (Washington D.C.: Army War College, 23 Jun 1945), p.44.
18. Ibid., p.45.
19. Ibid., p.46.
20. Japanese in Battle, 2nd Edition, p.19.
21. "Notes from Theaters of War No. 18", p.11.
22. Anthony Arthur, Bushmasters, (New York: St. Martens Press, 1987), p.20.
23. Headquarters Western Defense Command and 4th Army, Information Bulletin No. 38, (San Francisco: Presidio of San Francisco, 20 Jun 1943), pp. 26,28.
24. Notes for Task Force Commands in Pacific Theaters, p.63.
25. Ibid., p.31.
26. Ibid.
27. Ibid., p. 48.
28. U.S. War Department, "Notes from Theaters of War No. 17: Far East Apr-Nov 1943", (Washington D.C.: U.S. War Department, May 1944), p.17.
29. Headquarters U.S. Army Forces, Pacific Ocean Areas, "Information from Combat Operations and Observers Reports: Western Pacific Operations", 12 Apr 1945, p.7.
30. Office of the Chief-of-Staff, OPD Information Bulletin Vol V, No. 7, (Washington D.C.: U.S. War Department, Operations Division, 28 Jul 1945), p.7.
31. Notes for Task Force Commands in Pacific Theaters, p.69.
32. Hamlin Cannon, Leyte: The Return to the Philippines, U.S. Army in WWII-The Pacific Theater of Operations, (Washington D.C.: Office of the Chief of Military History, 1954), p.247.

33. Ibid., pp.211-220.
34. Ibid. p.247.
35. "Notes from Theaters of War No. 17", p.30.
36. Notes for Task Force Commands in Pacific Theaters, p.37.
37. "Notes from Theaters of War No. 18", p.3.
38. "Information from Combat Operations and Observers Reports", 12 Apr 1945, p.52.
39. Notes from Theaters of War No. 18, p.5.
40. Ibid.
41. "Close-up of Guadalcanal", p.13.
42. Slim, Defeat into Victory, p.121.
43. "Close-up of Guadalcanal", p.17.
44. Headquarters Army Ground Forces, Army War College, "Observers Report", reprint of personal letter from MG O.W. Griswold to LTG Leslie McNair, (Washington D.C.: Army War College, 21 Sep 1943), p.4.
45. United States Army Vietnam, "Night Operations in RVN", Seminar Rpt, (RVN: HQs, USARV, Apr 68) pp. x,xi.
46. United States Military Assistance Command-Vietnam, Memo from the Asst. Chief of Staff for Intelligence, Subject: "VC Night Operations", 6 Jan 67, p.7.
47. Ibid., pp. 1,2.
48. United States Military Assistance Command-Vietnam, Office of the Assistant Chief of Staff for Intelligence, "What a Platoon Leader Should Know About the Enemy's Jungle Tactics", Oct 67, p.5.
49. Ibid.
50. Infantry Magazine, Infantry in Vietnam, (Georgia: Infantry Magazine, Ft. Benning, 1967), p. 41.
51. Ibid., p. 69.

52. Ibid.
53. "VC Night Operations", p.8.
54. Ibid., p.3.
55. Infantry in Vietnam, p.9.
56. "What a Platoon Leader Should Know About the Enemy's Jungle Tactics", p.16.
57. United States Army Vietnam, "NVA-VC Small Unit Tactics and Techniques Study", First Revision, (Vietnam: HQs USARV, 6 Dec 69), p. III-2.
58. Ibid.
59. "Night Operations in RVN", p.xiv.
60. Ibid., p. ix.
61. James McDonough, Platoon Leader, (Novato, CA: Presidio Press, 1985), p.29.
62. Ibid.
63. LTG Julian Ewell and MG Ira Hunt Jr., Sharpening the Combat Edge, (Washington DC: Department of the Army, Vietnam Studies, 1974), p.92.
64. Ibid., p.90.
65. "Night Operations in RVN", p. xi.
66. Ibid., p. 20.
67. Ibid., p. 19.
68. United States Army Vietnam, Attack of Fortified Positions in the Jungle, Seminar Report, (Vietnam: HQS USARV, 2 Jan 68), p. vi.
69. "Night Operations in RVN", p. 15.
70. Ibid., p. xiii.
71. Ibid., p. 17.
72. "Night Operations in RVN", p.18.
73. United States Army Combat Developments Command

Experimentation Command, Southeast Asia Night Operations-Ground, Final Report, May 1970, p. 16.

74. Sharpening the Combat Edge, p. 90.

75. "Night Operations in RVN", p. 19.

76. Ibid., p. XIII.

77. Field Manual 7-20, p.1-1.

78. Ibid., p.3-12.

79. Ibid.

80. Ibid., p.3-13.

81. Ibid., p.3-13, Department of the Army, Field Manual 7-10, The Infantry Rifle Company, (Washington D.C.: Headquarters, Department of the Army, 1990), p.4-36.

82. Field Manual 7-10, p.4-43.

83. Field Manual 7-20, p.4-7.

84. Ibid.

85. Field Manual 90-5, p. 4-1 thru 4-9, see the discussion on the threat in jungle areas.

86. Ibid., pp. 5-13,5-14,5-15, see the discussion of the deliberate attack and attack against fortified positions; Field Manual 7-10, pp.4-35 thru 4-42, see the discussion on attacks during limited visibility; Field Manual 7-20, pp. 3-11 thru 3-13, see the discussion on limited visibility operations, (these sections of FMs 7-10 and 7-20 discuss how NVDs allow the infantry to operate routinely at night).

87. Field Manual 90-5, p. 5-27, Field Manual 7-10, p.6-25, see the discussions on ambushes.

88. Field Manual 90-5, pp. 5-15 thru 5-23, Field Manual 7-10 p.4-7, see "Defensive Operations".

89. Department of the Army, Combined Arms Command, Center for Army Lessons Learned, "Video Teleconference Combat Training Center Trends", (Ft.Leavenworth, KS,21 Oct 92), unpagd.

90. Field Manual 90-5, pp.3-2--3-5, see Training Tips".

BIBLIOGRAPHY

Books

- Arthur, Anthony, Bushmasters, New York: St. Martens Press, 1987.
- Cannon, Hamlin, Leyte: The Return to the Philippines, U.S. Army in WWII-The Pacific Theater of Operations, Washington DC: Office of the Chief of Military History, 1954.
- Center of Military History, Seven Firefights in Vietnam, Washington DC: Office of the Chief of Military History, 1970.
- Center of Military History, Night Combat, Washington DC: Office of the Chief of Military History, 1986.
- Combat, WWII Pacific Theaters of Operations, Ed. Don Congdon, New York: Arbor House, 1958, 1963, 1983.
- Eichelberger, Robert L., Our Jungle Road to Tokyo, New York: Viking Press, 1950.
- Ewell, Julian and Hunt, Ira Jr., Sharpening the Combat Edge, Washington DC: Center of Military History, Vietnam Studies, 1970.
- Infantry Magazine, Infantry in Vietnam, Ft. Benning GA: Infantry Magazine, 1967.
- Karnow, Stanley, Vietnam: A History, Middlesex England: Penguin Books, 1984.
- McDonough, James, Platoon Leader, Novato CA: Presidio Press, 1985.
- Slim, William, Defeat into Victory, London: Papermac, 1986.

U.S. Government Documents

- "Close-up of Guadalcanal", Verbatim Statements of Participants, 1 Feb 1943. [R 14296]
- Department of the Army, Combined Arms Command, Center for Army Lessons Learned, Memorandum, Subject: "Video Teleconference Combat Training Center Trends", 21 Oct 92.

Department of the Army, II Field Force Vietnam, Combat Techniques, March 1969. [N 6545.3]

Department of the Army, Field Manual 7-10, The Infantry Rifle Company, Washington DC: HQs DA, Dec 1990.

Department of the Army, Field Manual 7-20, The Infantry Battalion, Washington DC: HQs DA, Apr 1992.

Department of the Army, Field Manual 31-35, Jungle Operations, Washington DC: HQs DA, Sep 1969.

Department of the Army, Field Manual 90-5, Jungle Operations, Washington DC: HQs DA, 1982.

General Headquarters, India Military Intelligence Directorate, Japanese in Battle, 2nd Edition, Delhi India, Aug 1944. [N 4331]

Headquarters, Army Ground Forces, Army War College, "Combat Lessons Gained from Overseas Observations", Washington DC: Army War College, 23 Jun 1945. [R 14583-2]

Headquarters, Army Ground Forces, Army War College, "Observers Report", copy of personnel letter from MG O.W. Griswold to LTG Leslie McNair, 29 Aug 1943.

Headquarters, Military Assistance Command Vietnam, "Counterinsurgency Lessons Learned No. 57: Pursuit, memorandum, 25 May 1966.

Headquarters, U.S. Army Forces, Pacific Ocean Areas, "Information from Combat Operations and Observer's Reports- Western Pacific Operations", 12 Apr 1945. [N 8664]

Headquarters, Western Defense Command and 4th Army, Information Bulletin No. 38, Presidio of San Francisco, 20 Jun 1943. [R 14076.5]

Office of the Chief of Staff, U.S. War Department, OPD Information Bulletin Vol V, No. 1, Washington DC: Operations Division, War Department, 28 Jul 1945. [N 7002.31]

Military Assistance Command Vietnam, Combined Intelligence Center, Office of the Assistant Chief of Staff for Intelligence, "What Every Platoon Leader Should Know About the Enemy's Jungle Tactics", Oct 1967. [N 18745.691]

Military Assistance Command Vietnam, Memorandum from the

Office of the Assistant Chief of Staff for Intelligence, Subject: "VC Night Operations", 6 Jan 1967. [N 18745.406]

McMichael, Scott R., A Historical Perspective on Light Infantry, Research Survey No. 6, Combat Studies Institute, Ft. Leavenworth, KS, 1987.

Robinson, W.A., LTC, "Some Notes and Impressions on Exercise Jungle Jim and Jungle Warfare in General", British Army Liaison Officer, Ft. Benning, GA, 1953. [N18116.4]

U.S. Army, Combat Developments Command Experimentation Command, Southeast Asia Night Operations-Ground, Final Report, May 1970. [AD 508 924L]

U.S. Army Vietnam, Attack of Fortified Positions in the Jungle, Seminar Report, HQs USARV, 2 Jan 1968. [N 19090.27]

U.S. Army Vietnam, Night Operations in RVN, Seminar Report, HQs USARV, 13 Apr 1968. [N 19090.30]

U.S. Army Vietnam, "NVA-VC Small Unit Tactics and Techniques Study", First Revision, HQs USARV, 6 Dec 1969.

U.S. Army Vietnam, USARV Training, Seminar Report, HQs USARV, 29 Nov 1967.

U.S. War Department, Military Intelligence Division, "Notes on Japanese Warfare", Information Bulletin No. 7, Washington DC: War Department, 24 Jan 1942.

U.S. War Department, Military Intelligence Division, "Notes on Japanese Warfare", Information Bulletin No. 8, Washington DC: War Department, 7 Feb 1942.

U.S. War Department, Notes for Task Force Commands in Pacific Theaters, Washington DC: War Department, 6 Feb 1943. [N 16710]

U.S. War Department, "Notes from Theaters of War No. 17: Far East Apr-May 43", Washington DC: War Department, May 1944. [N 14848.9]

U.S. War Department, "Notes from Theaters of War No. 18: Pacific 1943/1944", Washington DC: War Department, Dec 1944. [N 14848.10]