

in the unit was focused on a common goal. Once the daily distractions of garrison life were taken away, the Marines thrived on the challenge. An innovative mindset was critical to the success of our evolution. Marines at every level developed unique ideas and leaders were not afraid to use them. This attitude was highly infectious and clearly met the commander's intent. Experimentation with tactics, procedures, and technology made it all possible. The commanders at all levels were unselfish in their desire for the battalion as a whole to succeed and continually shared information. Technology advances in the past decade have greatly enhanced the av-

erage battalion's ability to fight at night. Without the huge advances in night vision equipment and targeting devices, the types of attacks conducted in Israel would not have been possible. Bridging the gap between technology, tactics, and doctrine proved to be our biggest challenge. Without BLT cohesion, the confidence to attempt such training would have been lacking. Finally, without the moral courage to execute potentially dangerous night training by all key leaders at the Marine expeditionary unit level, the type of training conducted in Israel would have remained an unrealized idea. Infantry training is an inherently dangerous endeavor. Through extensive

planning at all levels and a solidly executed training plan, this danger was reduced to an acceptable level. The lessons the Marines learned during this training were directly applicable to potential combat situations. The ability to learn from peacetime mistakes, and not have to do so in combat, is a truly critical lesson.



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Night Attack on Hill 163

by Maj Brendan B. McBreen

The Marine Corps should field the best-trained, most capable night fighting infantry in the world, but it has yet to achieve that standard.

In the cool darkness, the radio squawked. "Roger Four-One. This is Kingpin. I've got you with three dots and a dash. I've also got Three-Zero on the deck with seven dots. Stand by to snake your target."

Sergeant Martin heard the whop-whop of the lead Cobra, call sign "Kingpin," off behind his left shoulder, but he didn't turn to look. "Kingpin. Four-One. Snaking NOW."

At his feet, there was a slight rustle as the nearest of his six teams adjusted its machinegun on the dancing infrared (IR) spot 900 meters away.

"Four-One, this is Kingpin. I see your snake 700 meters northeast of your firefly."

In the next instant, the night was torn apart by far more noise, tracers, and detonations than Martin had expected. In a headshaking instant, Martin realized what he was watching. Large, green tracers arced up toward the Cobras.

"New Target! New Target!" he yelled

to his gunners. "Fire on my spot!" But the machinegunners did not need the spot. The origin of the enemy tracers was clearly visible with or without goggles. The gunners shifted west and opened up, adding to the crescendo. An hour ago, Martin had squatted with each gun and ran the support-by-fire drill. Friendlies were at 312 degrees, obliging him by marking their position with a blinking Phoenix beacon inside an M203 tube. Now Martin was glad he had been meticulous. "Watch your left limit!"

"Three-Zero this is Four-One! I have an enemy machinegun, with at least four men, firing at the Cobras. Location is 300 meters southwest of Objective 11!"

"Roger Four-One . . ."

"Break, Break! Four-One, this is Six." The company commander was in the draw with 3d Platoon. "Cease fire on that target. Plan still stands. Open fire on Objective 11 with tracers, NOW! Three-Zero. Move NOW!"

"Four-One. Roger, over."

"Three-Zero. Roger, moving now."

Martin flipped up his goggles, knelt down, and barked at his gunners. "Targets one and two on the objective, with tracers..."

"I see them moving!" an A-gunner shouted.

"Hurry up!" Off in the darkness, nothing was visible. Martin flipped down his goggles and immediately caught the seven-dot blink of 3d Platoon's Phoenix. That would be the right flank. The left flank, he knew, was marked with an IR chemlite, but he couldn't see it.

His machinegunners opened up, this time with tracers, on their original targets. Enemy small arms fire now cracked back at them. 3d Platoon was moving out there, urgently, but quietly, and completely blacked out. The enemy had not yet seen them. Martin saw an IR light beam from 3d Platoon arc left to right and then rest steadily on some unseen target. "Too strong for a PAQ-4," he thought, "must

be a hand-held." He watched a dozen thin PAQ-4 or PEQ-2 weapons beams converge on the brighter beam.

"Crack!. . . BOOM!" The sound of a rocket and its near-immediate impact was followed by the sudden roar of automatic weapons. 3d Platoon was going in!

The Cobras came back, well to the north this time, guided by Bunny, the company FAC (forward air controller). "Kingpin, this is Bunny. I'm on the deck with the lead element. Do you see my rope?" Bunny was making circles in the sky with a hand-held laser pointer.

"Bunny. Kingpin. I see you and I see your helmets. Two groups. One with you and one farther north." The 1-inch square of glint tape on each Marine's helmet was visible inside the cockpit. Both 1st and 3d Platoons were now inside the enemy position.

"Roger, Kingpin. Our thermals picked up and then lost two vehicles moving east, probably on the road toward checkpoint Five-Eight-Tango. We have no friendlies that far east, over."

"Roger, Bunny. On the way."

The company had overrun Objective 11 with lots of short-range, well-aimed fire but no grenades, no mortars, and no illumination. The Marines quickly established new positions, consolidated units, and redistributed ammunition. On the commander's guidance, Two-Three laid out an IR "T" to mark an LZ (landing zone) on the southern slope, signaled the medevac birds with a chemlite buzzsaw, and then carried 11 casualties to the birds. The attack had taken 19 hours to prepare, but only 35 minutes to execute.

Nine hundred meters away, while his gunners and the mortarmen broke down their equipment, Sgt Martin gazed north toward Hill 163 and smiled. "That's the reason we train so hard," he thought. To the unaided eye, and especially any remaining enemy observers, the hill was still blacked out. During the entire action, from the reconnaissance, infiltration, support-by-fire, and assault, to the consolidation and pursuit by fire, to the treatment and evacuation of casualties by air, every task had been done in complete darkness.

If the Marine Corps went to war tomorrow, what night fighting capabilities would our infantry battalions possess? What night fighting issues would arise?

"No urgency is attached to night training. We own the equipment, but we certainly do not own the night."

- Could the battalion acquire and issue the 4,000 AA batteries it needs that first night?

Would the ship have 22,000 rounds of belted 5.56 and 7.62 without tracers?

- Would the battalion have glint tape? IR chemlites? and standing operating procedure (SOP) for their use?

Could the Cobras differentiate between a FAC lasing a target, a platoon commander lasing a route, a machinegunner lasing a sector, and the log train lasing an LZ?

Would the squad leaders and section leaders know how to boresight PAQ-4 or PEQ-2 weapons pointers to their M203s, M249s, and M240G weapons?

- Would the point man know that

his PVS-14 compass is over 10 degrees off!

- Would the artillery forward observer know how to plan and adjust IR illumination rounds?

The answer, of course, to all these questions is "No." No battalion has 4,000 AA batteries. No war stocks of ammunition have been adjusted to meet night fighting requirements. No

battalion has a "Light Discipline in the IR Spectrum SOP" that the Cobra pilots know. No Marine can boresight the PAQ-4 or PEQ-2 to the M203, the M249, or the M240G because no mounts have been procured and no boresight procedures have been published. If the Marine Corps went to war tomorrow, the discovery learning on night combat would be quick, dirty, and dangerous—and wholly unnecessary.

How does the Marine Corps plan to fight at night? We have spent a lot of money in this area. What capabilities have we gained? The newest generation of equipment is fielded, but few training resources are available, and few leaders know the equipment and how it might modify their procedures. No up-to-



date manuals exist. No urgency is attached to night training. We own the equipment, but we certainly do not own the night.

Night Fighting Issues

The Good. Infantry units in the Marine Corps have the best equipment available. This equipment has the potential to significantly improve our night fighting capabilities. An infantry rifle company now rates over 70 PVS-7 and 70 PVS-14 night vision goggles (NVGs), almost

1 for every Marine in the company. Forty magnifiers are available for the NVGs. Over 70 PAQ-4 weapons laser pointers are mounted to the company's M16s and M203s. Twenty-seven PVS-4 night vision scopes, currently being refitted with new imaging tubes, are available for mounting to M203s or other weapons. Commercially available equipment, such as firefly beacons, Phoenix beacons, IR filters, IR chemlites, and glint tape, can be purchased by units or acquired through the Marine Corps supply system. Marine Corps Systems Command (MarCorSysCom) is doing a great job of acquiring equipment and answering questions from the Operating Forces. New equipment, the PEQ-2 weapons laser pointer, the PEQ-4 hand-held laser pointer, the PVS-17 weapons scope, and the PAQ-13 thermal weapons sight, will be fielded in the coming year. But equipment does not equal capability. Training equals capability. Only those units that train and experiment with this new equipment discover the tactics, techniques, and procedures (TTPs) that will work in combat. Only those units that train and experiment can develop and adjust their night fighting SOPs.

The Bad. Infantry units in the Marine Corps need critical training support: There is no night fighting manual, no new individual training standards, and no updated collective training standards. There are no training support materials, handouts, templates, posters, or

pocket guides. There are no night fighting courses, no new equipment training teams, and no easy-to-read technical manuals for any of this new equipment. Quantico has a new night training facility but benefits from it are not yet apparent in the Operating Forces.

“The entire Marine Corps operates on a daytime work schedule. . . . infantry companies are not autonomous enough to train well at night without command support.”

Infantry units have no budget for consumable night equipment. Units cannot afford to buy AA batteries, IR beacons, glint tape, or chemlites. Marines often buy their own batteries.

Marine Corps ranges are notoriously difficult when it comes to supporting night firing. Waivers are needed. Illumination is required. Maneuver is not allowed. The range regulations are out of date in that they rarely take night vision devices into account and unnecessarily constrain even low-power lasers. Range personnel are unfamiliar with new capabilities and hesitate to approve lasers, IR markers, and NVGs as the primary safety equipment on a live fire range. Although the mission of the infantry is to “. . . close with and destroy the enemy by fire and maneuver,” no night fire and maneuver has occurred on any range in Okinawa in at least 4 years!

The Ugly. Who is the Marine Corps proponent for night fighting? How are training, requirements, and procurement being guided? Who prioritizes fielding plans? What Marines and what Marine units rate what equipment? Who is listening when an infantry company says it needs nine hand-held laser pointers? Marine leaders at all levels should know the answers to these questions.

Why is the PVS-17 scope replacing the PVS-4? Goggles are far more versatile than scopes. Why is an expensive thermal sight needed instead of an inexpensive PAQ-4 mount for M249 and M240G weapons? Marines

want a pointer mount and a scope and the ability to choose either based on the mission. Is the thermal sight able to see the signal of the PAQ-4? Why is this important?

The entire Marine Corps operates on a daytime work schedule. During night training, the chow hall is not open, the motor pool cannot repair a vehicle, ammunition cannot be

drawn, and the armory may not be accessible. These issues can be coordinated, but infantry companies are not autonomous enough to

train well at night without command support.

Night Fighting References and Resources

Resources do exist to help leaders learn about and plan night training. The U.S. Army Training and Doctrine Command's web site, <<http://www.tradoc.army.mil/publica.htm>>, contains most of the Army's field manuals (FMs). Each manual in the infantry series has a section on night operations:

FM 7-30 The Infantry Brigade, 3 Oct 95.

FM 7-20 The Infantry Battalion, 6 Apr 92.

FM 7-10 The Infantry Rifle Company, 14 Dec 90.

FM 7-8 The Infantry Platoon and Squad, 22 Apr 92.

The 7-8 and 7-10 contain the most detailed information. Other manuals are also helpful:

FM 8-50 Prevention and Medical Management of Laser Injuries, 8 Aug 90.

FM 22-9 Soldier Performance in Continuous Operations, 12 Dec 91.

Unfortunately, *FM 90-22 Multiservice Night and Adverse Weather Combat Operations*, 31 Jan 91 is hopelessly out of date.

The Center for Army Lessons Learned web site, <<http://call.army.mil/call.htm>>, contains two documents that all Marine Corps infantry company commanders should read: "Ranger Company Night Live Fire Raid in the IR Spectrum," and "Own

the Night! Small Unit Night Fighter Manual."

The Marine Aviation Weapons and Tactics Squadron web page, <<http://www.tediv.usmc.mil/mawts1>>, contains software programs for planning night operations.

The 2d Battalion, 5th Marines' web page, <<http://www.2ndbn5thmar.com>>, contains three manuals on night fighting, known collectively as the *Night Warrior Program*:

Book I: Nzght Warrior Handbook is a manual of individual skills training. Sample TTPs include:

- A fire team leader with an M203/PAQ-4 and PVS-7, has no need for a PVS-4 scope.

Weapons equipped with PAQ-4s do not need tracer ammunition. PAQ-4 boresight is not dependent on battlesight zero. Lefties should shoot PAQ-4 right handed.

Cobras can pick up the "rope" made by a PAQ-4. PAQ-4s can be hand-held.

All NVGs need helmet mounts. To read a map with NVGs, lay the map down and keep your head steady at about 10 inches.

- Each infantry platoon needs an IR beacon to mark LZs, support-by-fire positions, or maneuver elements.

- Each infantry platoon needs a hand-held laser pointer for directing fire. A leader can identify targets for organic and nonorganic fires, define fields of fire, define control measures and routes, and mark targets for close air support. The heavy beam is distinctive on an IR-cluttered battlefield. Hand-held laser pointers are not "just for FACs."

Book II: Night Combat for Infantry Units is a manual for collective skills training. It includes night battle drills and SOPs for infantry units.

Book 111: Night Combat Leader's Guide is an educational publication designed for leaders. It includes sections on human factors at night, the physiology of the eye under night conditions, infrared light, the science of lasers, laser safety, and night operations planning considerations. It contains lists of references, resources, terminology, (including joint laser terminology), and an annotated bibli-

ography of over 30 books and articles on night fighting.

What Is To Be Done?

The Marine Corps has the very best modern equipment, tremendous Marines, and well-trained leaders. What will it take for the Marine Corps to significantly improve its infantry night fighting capability? The answer is training—training, supported by an infrastructure that encourages and values night operations. An infantry proponent needs to tie the following efforts together to deconflict differences and prioritize resources.

Doctrine Division

- Write "A Concept for Fighting at Night" to guide requirements, acquisition, and training.
- Produce a new manual: *Marine Corps Doctrine Publication (MCDP) 3.37, Night Combat Operations for Infantry Units*.

Requirements Division

- Rewrite the infantry night fighting requirements that drive acquisition. All infantry Marines need goggles. All weapons need pointers. Scopes, thermal or not, are additional equipment. Infantry platoons need a programmable IR signal device. Infantry platoons need a hand-held laser pointer. Squads need radios, especially during night operations.

MarCorSysCom

- Provide new equipment training teams for operators when new equipment is fielded.
- Provide readable technical manuals aimed at the primary audience, the NCO.
- Standardize all new equipment on commercially available AA batteries.

Training & Education

- Update MCO 1510.35, *Individual Training Standards* for infantry, to include a new chapter of standards for night combat. Update the night fighting collective tasks in MCO 3501.3, *Marine Corps*

Combat Readiness Evaluation System for infantry units.

- Direct the Schools of Infantry (SOIs) and The Basic School to teach night individual training standards to privates and lieutenants.
- Direct SOIs to establish a "Night Warrior Leader Course" to teach NCOs collective standards, SOPs, and TTPs for night combat.
- Produce a series of laminated night training materials for small unit leaders: posters, pocket guides, training graphics, boresight targets and templates.
- Establish a web page for night combat that serves as a source for all training products.

Base

- Rewrite range regulations to encourage night training, reflect new equipment capabilities, and support new night training standards.

Infantry Regiments

- Examine schedules for chow halls, motor pools, and all other infrastructure that inhibit night training.
- Assign one battalion the single training task: "Conduct a Night Attack." Make that battalion the regiment's lead agency in developing night TTP.
- Petition the division to increase the infantry battalion budget to cover night fighting expendables, especially batteries, and night equipment purchases.

Conclusion

The Marine Corps should field the best-trained, most capable night fighting infantry in the world. The easy part, acquiring the equipment, is well in hand. What remains to be done is the experimentation, the doctrinal modifications, and the challenging and difficult training which will produce competent and capable battalions of night warriors.



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