



RANGER COMPANY NIGHT LIVE-FIRE RAID

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During night live-fire rehearsals for the Son Tay Raid in 1970, Colonel "Bull" Simons found that even his best shooters were getting only about 25 percent of the rounds into torso-size targets at 50 meters. He immediately bought Armalite sights and Singlepoint night sights, which enabled the M16 riflemen to put every round into E-type silhouettes out to 50 meters. The only problem was finding a proper mounting bracket for the sight. The quick fix was black electrician's tape, an example of the type of solution many squad leaders still rely on today, in spite of all our technological advancements.

Since the 1970s, there has been a dramatic improvement in the individual soldier's ability to acquire, identify, and accurately engage targets at night with individual and crew-served weapons. The 1st Battalion, 75th Ranger Regiment, recently conducted live-fire air assault raids at night in a near total in-

frared (IR) spectrum. The only conventional lights used were close-quarter battle (CQB) flashlights mounted on individual weapons for room clearing. All other markings (friendly forces, breach points, and cleared bunkers, buildings, rooms), the acquisition and illumination of targets, enemy prisoner of war (EPW) searches, and casualty evacuation operations were accomplished using night vision devices (NVDs) with the aid of IR sources.

All of the weapon systems organic to a Ranger rifle company were used, including the M16A2 rifle, M4 carbine, M203 grenade launcher, M249 light machinegun, M240G machinegun, shotgun, 84mm Ranger antiarmor weapon system (RAAWS), M24 and .50 caliber sniper rifles, 60mm mortar, M72A2 LAW (light antiarmor weapon), AT4, M18A1 claymore mine, and the bangalore torpedo. In addition, the special

operations helicopter support unit used its 2.75-inch rocket, 30mm main gun, and 7.62mm Miniguns.

Each Ranger had night vision goggles (AN/PVS-7A or 7B) and an aiming device or night vision scope for his weapon. Since knocking out several bunkers near the breach points was a critical task, leaders emphasized identifying, acquiring, and accurately engaging these targets with the LAW, AT4, and RAAWS. Leaders used several types of devices to designate and illuminate targets for the support and assault elements, as well as the attack helicopters.

This article will discuss some of the tactics, techniques, and procedures (TTPs) used during the company air assault raid, discuss the training and equipment required for operations in the IR spectrum, and share the major lessons learned from the exercise. Much of what is outlined here is already standing operating procedure (SOP) in some infantry units that are already training aggressively to “own the night.”

The Raid

The scenario for the raid involved an enemy terrorist training camp of 30 trainees and 12 cadre spread throughout nine plywood buildings (see diagram). These people were equipped with small arms and, near the center of the camp, had one .50 caliber heavy machinegun employed in an antiaircraft role. They did not have NVDs or chemical weapons.

The camp was surrounded by triple-standard concertina wire and eight bunkers. The cadre compound inside the camp was separated from the trainees by a double cyclone fence. Enemy vehicles were stored in a motor pool adjacent to the camp. Upon attack, the terrorists were expected to defend the camp until overwhelmed. During the time of the attack, illumination was zero percent.

The company mission was to destroy the enemy camp to prevent the reinforcement of another critical target within the battalion’s area of operations. The concept was divided into three phases:

Marshaling and deployment. This phase began with the marshaling of the air assault task force and ended with the pre-assault fires on the objective. The airlift package included three U.S. Air Force medium-lift helicopters, four Chinook medium-lift, and four Black Hawk helicopters, supported by two light-attack and two medium-attack helicopters. The task force was controlled by the air assault task force commander (battalion command and control element) in a Chinook with a command and control console.

Assault. The assault phase began at H-3 minutes with the pre-assault fires from attack helicopters on key targets inside the objective—the .50 caliber machinegun position, bunkers 4 through 6, and building 10. At H-Hour, the support force on three medium-lift helicopters—consisting of the company’s weapons platoon with two 60mm mortars, two RAAWS, seven M240G machineguns, two snipers armed with an M24 and a .50 caliber Barrett rifle, and the company alternate command post—landed approximately 300 meters from the objective at HLZ SEAGULL and immediately suppressed the objective area until the assault force arrived.

The support element leader used the ground commander’s

pointer and a Maxibeam flood light with IR filter to illuminate the objective area and designate key targets (bunkers and buildings) for the RAAWS and M240Gs. This enabled all sections on the support-by-fire (SBF) position to acquire their targets quickly and adjust fires to achieve suppression. The RAAWS and M240G machinegunners used the Litton M937 scope or the PVS-7B with an AIM-1 laser aiming light to engage targets out to 400 meters.

The assault force in the four Black Hawk and four Chinook helicopters landed at HLZ VULTURE—150 meters to the east of the objective and to the south of the SBF position—at H+4 and H+5 minutes, respectively. As the Black Hawk helicopters approached HLZ VULTURE, the door gunners engaged bunkers 5 and 6 and buildings 23 and 24.

The assault force consisted of three rifle platoons, two M240G machineguns, and one RAAWS, under the control of the company command post. The assault element was deployed with 1st and 2d Platoons abreast and 3d Platoon back as the initial company reserve. The plan called for 1st and 2d Platoons to seize breach points in the vicinity of bunkers 5 and 6, clear bunkers 4, 5, 6, and 7, then clear, in sequence, buildings 23, 24, 22, 21, and 20. Once bunker 7 and building 20 were cleared, 3d Platoon would pass through 1st Platoon, breach the fence on the east side of building 12, then clear buildings 12, 11, 10 in sequence while being supported by 2d Platoon. Assault forces would move to the buildings using night observation devices, but once “stacked” outside a building, members of the clearing team would flip up their PVS-7Bs and clear the rooms and the building using “white light” flashlights mounted on their individual weapons.

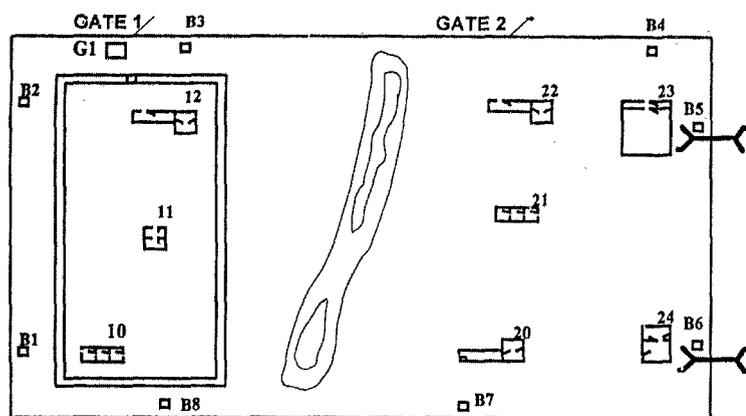
Initially, the assault force achieved suppressive fire on the objective and again engaged bunkers 4 to 6 at a range of approximately 100 meters with one RAAWS and two AT4s—one with an AN/PVS-4 and the other with a PVS-7B and an AN/PAQ-4C laser aiming light. Once the company commander was satisfied that the breach points were isolated and the objective was being suppressed, the 1st and 2d Platoons launched two breach teams. The teams conducted fire and movement to two breach points on the triple-standard concertina obstacle and at each point emplaced two sections of a bangalore torpedo primed with a three-minute nonelectrical firing system. The right flanks of the breach teams were marked with either an IR chemlight or a Phoenix IR beacon so that the attack helicopters and the SBF position, which was still suppressing the bunkers near the breach site, could identify the forwardmost friendly elements.

Before the team reached the breach point, the signal was given for the SBF element to shift fires, moving the left limit of the SBF suppressive fires to building 23. With bangalores emplaced and time fuses burning, the breach teams bounded back 100 meters to the assault element position, and the SBF element shifted back to bunkers 5 and 6. Once the bangalores blew, the breach teams immediately bounded back to clear and mark the breach with IR chemlights; they shifted the SBF element back to building 23 and knocked out bunkers 5 and 6.

With the movement through the breach point, the next signal was given to shift the SBF element once again to building

OBJECTIVE PANTHER

GUARD SHACK (G1)/GATE 1: MANNED
 GATE 2: UNMANNED
 MANNED BUNKERS: B2-B5
 UNMANNED BUNKERS: B1, B6-B8
 BLDG 10: ARMS/COMMUNICATIONS ROOMS
 BLDG 11: CADRE BARRACKS
 BLDG 12: OFFICES/ORDERLY ROOM
 BLDG 20: CLASSROOM
 BLDG 21: SHOWER/LATRINE
 BLDG 22: DAY ROOM
 BLDG 23: BARRACKS
 BLDG 24: STORAGE FACILITY



12. With the breach points seized and direct fire suppression on buildings 20 through 24, and with attack helicopters isolating and suppressing buildings 10 through 12, 1st Platoon launched a squad to clear building 23. With that building cleared, the SBF element lifted its fires and assumed responsibility for preventing enemy withdrawal to the north.

As each cleared building was marked with an IR chemlight, another squad launched to continue clearing a successive building. With building 20 cleared and bunker 7 knocked out, 3d Platoon became the main effort and was passed through to breach and seize its objective (buildings 10 through 12). Before the breach could be executed, bunker 3 was engaged from about 75 meters with a LAW. The LAW gunner wore a PVS-7B with an AIM-1 aiming laser on the weapon. The attack helicopter responded to calls for fire from forward observers—identified by IR strobes as friendly—to engage targets on and around the objective.

Exfiltration. Once the assault force had secured the objective, the exfiltration phase began, and the company began to consolidate and reorganize. As searches were being conducted with IR lights, several enemy vehicles were engaged about 100 meters west of the objective using four LAWs with either PVS-4s or aiming lasers.

Crucial to the success of this phase was the triage, treatment, and immediate extraction of friendly casualties. Observer-controllers identified between 12 and 15 casualties so that the

company's combat service support system could be fully exercised. Once the casualties were evacuated, the assault force withdrew from the objective to HLZ VULTURE while the support element overwatched. Following the familiar "Fire in the hole" warning and the destruction of captured enemy weapons and equipment, helicopters returned to pick up the assault force. The support element was recovered two minutes later under the overwatch of the attack helicopters. The entire operation lasted about 45 minutes, even with the total darkness and the intensive casualty play.

Preparations for the Raid

Many infantry units occasionally perform night air assaults (raids or attacks) under live-fire conditions. But few can achieve the level of proficiency necessary to sustain a "Trained" status, and fewer still can conduct the mission in a near total IR spectrum.

Achieving a "Trained" status in the IR spectrum has two essential components: the necessary equipment and extensive training and rehearsal.

A unit cannot operate completely in the IR spectrum unless each soldier has night vision goggles (NVGs) mounted on his head. Furthermore, the goggles are of little value if he does not also have an aiming device on his weapon.

The training and rehearsals for this mission are much the same as for any other mission or task. They must be gradual,

progressing through the *crawl, walk, run* stages as outlined in Field Manual (FM) 25-101, *Battle Focused Training*. They must address the individual, leader, and collective tasks that support the terminal training objective specified in ARTEP 7-8 MTP, *Mission Training Plan for the Infantry Rifle Platoon and Squad*, and ARTEP 7-10 MTP, *Mission Training Plan for the Infantry Rifle Company*.

Although the training principles are the same as for other missions, train-up for the night live-fire air assault raid in the IR spectrum presents unique challenges to infantry leaders from fire team to battalion level.

Night Vision Equipment

Although Ranger resources differ from those of conventional infantry units, most of the equipment is the same. Rangers often receive the latest weapons and equipment in the Army inventory, such as the M4 carbine, which is replacing the M16A2 in Ranger units; the M240G, which has replaced the M60 machinegun; the RAAWS, which replaced the Dragon; and the Litton M845 and 937 night vision scopes, which augment the PVS-4.

With new equipment come new challenges and the responsibility to develop TTPs for its use. A Ranger company can outfit every soldier with NVGs, scope, and/or aiming laser. Like other units, Rangers are waiting for better equipment (such as replacing PVS-7As with PVS-7Ds), maintaining what they have, and relying on NCOs and their ingenuity to accomplish any mission they are given.

To assist in fielding new night vision equipment and developing innovations for using what is already in the inventory, the 1st Ranger Battalion formed a night vision committee at battalion level, made up of several NCOs, the platoon leaders, the headquarters company commander (who is the battalion

A unit cannot operate completely in the IR spectrum unless each soldier has night vision goggles.

force modernization officer), and the battalion commander. The committee's efforts have helped establish an SOP that spells out who carries which NVDs.

The following is a list of the equipment and TTPs used to operate in the IR spectrum:

Night Vision Goggles. Every soldier on the battlefield, whether he has a night vision sight mounted on his weapon or not, must have NVGs. Without them, he is severely handicapped during movement, which results in a loss of control for the unit and a diminished ability to acquire and engage enemy targets.

The PVS-7B with the flip-up head mount is considerably better than its predecessor, the 7A. The Generation III tube in the 7B provides far more clarity, which increases the soldier's ability to identify and acquire targets. The PVS-7D will be even better. The flip-up head mount enables a soldier to remove the goggles quickly before entering a lighted room. The compass that comes with the 7B helps the soldier navigate and maintain his orientation. Units will find, however, that the com-

pass is off approximately 15 degrees because of the metal in the new flip-up mount.

Another improvement on the PVS-7B is the IR intensifier tube, which can be placed over the IR source on the goggles. This enables the soldier to focus the IR from a "flood light" to a "spotlight," thus changing the need for IR intensity based upon terrain (movement through woods instead of built-up areas). While the use of white light is a preferred technique for room clearing, in large open areas (hangars, airport terminals) the use of the IR source on the goggles may be the best way to illuminate the area while clearing. The only problems with the PVS-7B are the need to use protective eye cups around helicopters, the limited range of head motion when worn along with Ranger body armor, and an occasional black-out during individual movement techniques (IMTs) due to a loose switch.

Aiming Devices, Pointers, Illuminators. The best set of goggles will not do a shooter any good without an aiming laser, such as the AN/PAQ-4A or 4C, or an AIM-1 that is zeroed to his weapon. The PAQ-4C is much better than the 4A because the laser is stronger, eye-safe, and not intermittent.

Mounting the PAQ-4C on the M4 has been one of our greatest challenges due to a shortage of mounting brackets. Although the M4 mounting bracket is noted as an additional authorized item in the PAQ-4C training manual, it is still not available in large quantities. Thanks to NCO ingenuity and resourcefulness, however, the battalion has progressed from electricians' tape to modified aim point mounts to finding a supplier.

Every Ranger armed with an M16A2, M4, M203, or M249 has a PAQ-4A or 4C, or an AIM-1. All M240G machineguns and the RAAWS can use the AIM-1, but the challenge of a proper mounting bracket remains. Because of its greater range and intensity, the AIM-1 is used primarily for squad leaders, the .50 caliber sniper rifle, the M240G machineguns, and the antiarmor systems. The AIM-1 on high power stands out on the battlefield and is easy to distinguish from other lasers. Platoon leaders and forward observers use the handheld LPL-30 laser target designator to mark targets for attack helicopters, machinegunners, snipers, and antitank systems. Leaders usually tape the LPL-30 on top of their PVS-7s to keep their hands free.

Another device used to direct or illuminate a target is the Maxibeam search light, which is a lightweight handheld, battery-operated IR or white light search light with an illumination of several million candlepower. Its beam can be narrowed to illuminate small targets such as a bunker or breach point or widened for large areas such as a portion of the objective. Rangers have used the Maxibeam from the support element with great success, particularly on nights with limited illumination.

Other IR aimers, pointers, and illuminators the Rangers have been testing are the ground commander's pointer-infrared (GCP-1A, GCP-2) and the IR target pointer/illuminator/aiming laser (ITPIAL). These have proved effective in augmenting and in some cases replacing Maxibeam lights. They are much lighter, are eye-safe at low power and, in the case of the GCP-2 and ITPIAL, can be mounted on a weapon.

Night Vision Scopes. Rangers have generally progressed from the PVS-4 to the Litton M845 and M937 night vision scopes. Normally, the M249 gunner mounts the M845, and the M240G machinegunner and the RAAWS gunner mount the M937 on their weapons. Rangers still use the PVS-4 for the LAW and AT4 due to the availability of scopes and mounts.

A few months ago the battalion received the advanced combat optical gunsight (ACOG) scope, one for each rifle fire team leader. The ACOG is an excellent small 4-power scope for daylight operations, but it also works well at night if there is some illumination. The ACOG augments the battalion's stock of Aimpoint 1000s and is normally mounted on the fire team leader's M4.

The battalion recently tested a scope called the computerized laser-assisted sight system (CLASS) and was pleased with the results and potential application to the Mk 19 grenade machinegun, RAAWS, and the M2 .50 caliber machinegun. The CLASS enabled Rangers to engage targets out to 1,000 meters with a near first-round hit using the Mk 19; the results were equally impressive with the RAAWS and the M2.

Markings. For the night live-fire raid, each Ranger was marked with a two-inch strip of IR-reflective tape on his arm and a one-inch square on his helmet. All cleared breach points, buildings, and bunkers were marked with either IR chemlights, or Phoenix beacons, as was the casualty collection point. The battalion also used IR strobe lights or Phoenix beacons to identify the flanks of assaulting elements. Landing and pickup zones were marked with either strobes or swinging IR chemlights.

Using only IR sources for marking has an advantage and a disadvantage. The advantage is that an enemy without night-vision devices has a lot of trouble identifying the friendly locations and actions. The disadvantage is that friendly forces can get confused trying to navigate through an objective that is marked all in the same color and contains several blinking IR lights. The supporting attack helicopters also can have a hard time identifying the source of a laser (for example, telling a Phoenix beacon from an IR strobe light).

CQB Lights. CQB lights mounted on individual weapon systems are the one exception to operating in total darkness. Although these lights come with IR filters, Ranger experience indicates that the white light clearing of buildings is generally preferred. It increases peripheral vision, enhances target acquisition and control, and increases the speed of the room-clearing team. For those without CQB lights, the field-expedient flashlight taped to the handguard is a must. But the use of white light, even in room-clearing operations must depend upon the mission analysis. When clearing large open areas, the use of CQB lights, without IR filters, is not the preferred technique. Use of the CQB lights with IR filters also enhances EPW search operations.

Train-up

The 1st Ranger Battalion relies heavily upon the professional competence of its NCOs, and particularly the team and squad leaders. These junior NCOs are trainers who know and enforce the highest standards. Each must ensure that his team or

squad is mentally and physically prepared for the Ranger mission. It is not uncommon to see a Ranger fire team or squad practicing CQB in the battalion area, conducting battle drills on the physical training field, or gathered around a chalk-board during some down-time in garrison. In the field, companies try to spend 75 percent of their time training at squad and platoon level. This is common throughout the Ranger Regiment and reflects the core belief that if a battalion has excellent squads, it will have excellent platoons and companies as well.

The junior NCOs have a crucial role in the train-up process for a night live-fire air assault raid in the IR spectrum. Whether it is understanding the capabilities and limitations of weapons

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and night-vision devices, marksmanship, battle drills, or CQB, each junior NCO must be technically and tactically proficient, must have time to train his team or squad, and must have the confidence of his soldiers.

Leader training for this mission can take the form of NCO and officer professional development sessions or train-the-trainer classes. To gain and maintain proficiency in CQB, many Ranger leaders attend the Special Operations Training Course at Fort Bragg, forming a school-trained base of NCOs from which to draw. Ranger leaders have also attended specialized demolition courses to learn nonstandard methods of entering buildings.

To build upon that base, the battalion has conducted professional development sessions at ranges to share the latest techniques in reflexive firing and advanced marksmanship techniques. Recently, the platoon leaders spent a day at Fort Stewart's shoothouse live-firing different scenarios and increasing their proficiency in CQB. The platoon leaders have also increased their overall night fighting capability and their understanding of battle drills by conducting a live-fire squad attack drill. These leader training techniques can be applied to other air assault raid battle drills such as *breach a wide obstacle, enter and clear a trench line, knock out a bunker, and support-by-fire* exercises.

Individual Training

Like the leader tasks, most of the specific individual training tasks required for the night live-fire mission are clearly spelled out in ARTEPs 7-8 and 7-10 MTP. What is not so apparent is the soldier's proficiency and familiarity with his weapon and NVD system. It entails more than just engaging targets with the M16 and PVS-4/Litton, or the PVS-7 and the PAQ-4/AIM-1. The soldier and his weapon and night vision system must become one. He must be able to zero the PAQ-4/AIM-1, reduce stoppages in his weapon, perform IMTs as a member of a fire team, and engage targets out to 300 meters at night as well as he can during the day.

Advanced marksmanship training, day and night, is key to

success, and individual proficiency focuses on reflexive firing. Although these tasks require few resources, they are vitally important and must be mastered before a team or squad can progress to collective training.

Collective Training

Once the chain of command is satisfied that leaders and individual Rangers are proficient at their tasks in preparation for the night air assault raid, the companies use a building block approach to the collective train-up. For the scenario described earlier, the companies broke down collective training into four separate tasks and drills that are normally done concurrently the week before the company mission. The tasks, conditions, and standards for these drills are found in ARTEP 7-8 MTP, with the exception of CQB. For the CQB drill, the Ranger Regiment uses its own Regimental Training Circular 350-2 (CQB Program of Instruction).

Support-By-Fire Exercise. Generally, the SBF exercise is conducted day and night, immediately following the zeroing of the machineguns and qualification of the crews. Companies first focus on gun crew proficiency through basic crew drill, then transition to the machinegun squad, which consists of three M240G teams, three men per team, and a squad leader who is normally the senior staff sergeant in the platoon. The squads must be able to work in absolute harmony with each other. The machinegun squad leader designates targets and directs the fire of the squad to ensure total coverage of assigned sectors and minimal lulls in fire. He also maintains the ability to stop the squad's fire immediately upon command.

Companies occasionally incorporate mortars, snipers, and the antiarmor sections into the SBF exercise, as they did for this one.

Breach wire obstacle/knock out a bunker. These two drills are normally conducted using blank ammunition and live demolitions. Depending on the time elapsed since a unit's last demolitions training, platoons may cover some of the basic tasks involved in priming electrical and nonelectrical demolitions

In the SBF exercise, companies first focus on gun crew proficiency through basic crew drill, then transition to the machinegun squad.

before starting the breach drill. On occasion, these drills are also part of a platoon attack, a day and night live-fire exercise, or a battle drill situational training exercise lane.

Ranger companies generally plan to breach triple-standard concertina and cyclone fence as these are the wire obstacles they expect to encounter in some areas of the world. The battalion has developed a field-expedient bangalore torpedo (called a Brashier Breach for one of the first sergeants); it has a minimum safe distance of 50 feet, compared to the 300 meters required with the Army's bangalore or 100 meters with two sections and troops in a defilade position. Although this method has not yet been approved, the initial test results are promising. Meanwhile, the battalion will continue to use two sec-

tions of the bangalore torpedo, laid diagonally beneath triple-standard concertina. If properly laid, it will blast a hole large enough for a truck to drive through. The cyclone fence usually requires a ladder charge, which is simply several strips of C4 explosive taped to detonator cord and hung vertically on the fence. Both electrical and nonelectrical blasting caps have advantages and disadvantages as primers. Normally, Rangers prefer nonelectrical priming because of the virtual certainty of detonation.

Squad/Platoon Attack. Maintaining basic proficiency in the squad/platoon attack battle drill, as outlined in FM 7-8, is essential to everything Rangers do. It is a battle drill that includes nearly every task on the battalion and company mission essential task list. The battalion spends a considerable amount of time working this drill day and night and trains it under live-fire conditions as well. Companies usually conduct the drill every six to eight weeks and always before a company live-fire raid or attack.

The drill's supporting tasks are varied to keep the Rangers focused. Sometimes companies incorporate *knock out a bunker* or simply *assault*. Sometimes they add machineguns, antiarmor, or mortars in support of the platoon. The battalion continues to experiment with new techniques to keep the training innovative and challenging and improve night fighting ability. This drill is the infantry's bread and butter. Before attempting to do the platoon attack drill or progress to the company night live-fire air assault raid in the IR spectrum, a unit must be able to conduct the squad attack at night as well as it can during the day.

Enter Building/Clear a Room (CQB). The days of throwing a hand grenade into a room and then rushing in and sweeping the room with automatic weapons fire went out with the Berlin Wall. Furthermore, it is a waste of ammunition that may not be resupplied in a timely manner. The restrictive rules of engagement (ROEs) such as those U.S. forces encountered in Panama, Somalia, and Haiti do not allow for indiscriminate fire. Adhering to restrictive ROEs while fighting in a built-up area requires training and discipline. The knowledge and discipline of when to shoot and when not to shoot comes with good CQB training.

Like the squad attack battle drill, Rangers try to execute this clearing drill up to squad level every six to eight weeks. The training starts with reflexive firing and advanced marksmanship training, taught by the junior NCOs, and it takes a full day and night to execute to standard. Once the chain of command is satisfied with the individual level of proficiency, four-man teams practice "single-team, single-room," then "single-team, multiple-room" scenarios. The Ranger goal is always "multiple-team, multiple-room" day and night live fire. The battalion recently began using "blue-tip" ammunition with the M4, M16, and M249. The blue-tip is a low-velocity 5.56mm round that disintegrates upon impact. It requires the use of a special bolt and "bullet traps" (plywood sheets with foam padding in between). It enables units to conduct live-fire exercises in training facilities not designed for live fire.

Conducting CQB to standard requires a lot of time, and the skills are highly perishable. While a Ranger is initially trained

as the Number 1, 2, 3, or 4 man in a clearing team, depending on his duty position in the squad, each must be cross-trained so he can do any job on the team.

Lessons Learned

The following is a summary of the lessons learned from the Rangers' night live-fire raid:

Proficiency with NVDs is the first step toward being able to operate in the IR spectrum. Leaders and soldiers must be fully trained on their equipment and know both its capabilities and its limitations. The best set of NVGs is of little use to a shooter who does not have a PAQ-4/AIM-1, or who has one

Before attempting to do the platoon attack drill or progress to the company night live-fire air assault raid in the IR spectrum, a unit must be able to conduct the squad attack at night as well as it can during the day.

but has not learned to zero it. Until a few months ago, the 1st Ranger Battalion did not have enough PVS-7s to outfit every Ranger and was forced to task organize night vision equipment within the company so squads and platoons could train to standard at night.

This is not unrealistic; a commander can weight his main effort before a fight by giving one element most of the NVGs in the company. He must use the available night vision equipment to employ all weapons, such as the LAW and the AT4. The PVS-4 needs to be replaced with a scope that makes the best use of the capabilities of the M249 and M240G/M60 machineguns. Currently, a unit is better off mounting PAQ-4Cs on these weapons and having the soldiers wear PVS-7Bs.

Light discipline has an entirely new meaning. Rangers have found that there is a point of diminishing returns in regard to the number of IR lights and lasers. As in most operations, SOPs guide what will be used and by whom. At the same time a unit must carefully assess the enemy's night vision capability as well. Clearly the covert (IR) marking of breach points and friendly elements should become SOP.

CQB techniques work. CQB may be a critical element of special operations and works extremely well, but there is nothing secret about it. Every rifle squad, given the training time, can use these same techniques.

Under current Army doctrine, the indiscriminate tossing of hand grenades and burst firing upon entering depend upon the ROEs, but this technique still has flaws. Rangers stack a team outside a door or desired point of entry, use a shotgun to break any lock or a demolitions charge to breach a wall, then flow into the room as a team. Grenades are used by exception, depending upon the ROEs and building construction. Rangers never send one man in alone, as advocated in some of the latest manuals on the subject. Once in the room, Rangers use white light to clear under most conditions; it works much better than IR.

The squad/platoon attack is the infantry's fundamental battle drill. If there is no time to do anything else, this drill is

the one collective task that should be performed. From it, the infantry derives virtually every other task needed to perform offensive operations.

The 1st Ranger Battalion has succeeded in maintaining proficiency in all of its offensive METL tasks—as well as in increasing the individual and collective proficiency of fighting at night—simply by focusing on the squad platoon attack battle drill and CQB with a training frequency of every six to eight weeks.

Establish unit SOPs for night fighting. Because of the command and control challenges of operating in the IR spectrum, units should establish SOPs that incorporate the Army's technological advances. These SOPs must be thoroughly wargamed and tested, then updated when new equipment is fielded.

Consider forming unit night fighting committees at company and battalion levels. The 1st Ranger Battalion's night fighting committee provides a forum that allows the junior NCOs and platoon leaders to demonstrate the latest innovations and share their experiences and lessons learned. They developed a battle roster for the battalion that shows which duty position uses which NVD. As new equipment is fielded, the committee makes recommendations to the commander on its disposition and distribution.

IR should be used to mark landing and pickup zones (LZs/PZs). When using numerous IR sources on the battlefield, a swinging IR chemlight works best for marking LZs/PZs. It is easily identified by aviators and is distinguishable from other light sources that may be used.

Although this article has outlined many of the TTPs and lessons 1st Ranger Battalion learned in its efforts to operate entirely within the IR spectrum, it is only one unit's experience. Force XXI envisions every infantry unit—light, mechanized, airborne, air assault, and Ranger—outfitted to operate in the total IR spectrum. Being outfitted correctly, however, is just a part of the picture. We, as the total infantry force, must share the information we learn during today's night training—the TTPs and the capabilities and limitations of current and new equipment—and apply it to tomorrow's night battle.

As we receive new night vision equipment, commanders must take the time to field it correctly, carefully analyzing which duty positions need which devices. The individual soldier, his weapon, and NVD must become one; and we must encourage NCOs and soldiers to be innovative. Although we may never get away from the use of electrician's tape, it is the ingenuity of soldiers that has led to some of the infantry's greatest breakthroughs in our efforts to "own the night."

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