A Light Infantry Company at NTC

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Our experience at the National Training Center (NTC) at Fort Irwin, CA, was the most challenging we had as a company commander and platoon leader. Altogether, we walked more than 80 kilometers in rugged, mountainous terrain and served as the main effort on seven missions. During those operations, our company — Alpha Company, 1st Battalion, 30th Infantry Regiment — destroyed 30 enemy vehicles and more than 100 enemy personnel, and it was detached to serve as the main effort for the 1st Battalion, 64th Armor Regiment during the brigade live-fire exercise (LFX). While the usual experience at NTC is as an armored force, our time in a light infantry company was one of the most transformative of our careers, and it is our hope that we can aid other light infantry leaders as they prepare to fight and win either at NTC or in combat. Light infantry can seize and hold terrain while destroying large numbers of enemy armor through the proper use of Javelins, night movement, and terrain exploitation.

This article will attempt to help guide your preparation for NTC or deployment to a mountainous desert environment. First, we will discuss lessons learned from our pre-deployment training and recommend areas of emphasis prior to arrival at NTC. Topics include physical training, land navigation, urban training, CBRN (chemical, biological, radioactive, nuclear) training, and recommended squad-level training events. Next, we will discuss lessons identified during our rotation, including vehicle load plans, fires planning, defensive operations, Javelin employment, company movement, and rehearsals. Lastly, we will offer some overall recommendations and conclusions for the future.

Preparation from Six Months Out to Deployment

During your preparation for NTC, there are multiple keys to success, including physical fitness, preparation for the terrain, urban training and certification, CBRN training, and how to fight mechanized vehicles.

A/1-30 IN was stationed at Fort Stewart, GA — essentially a flat swampland — and had to prepare to fight in the mountainous desert of NTC. An infantry unit that conducts training in a particular environment will find itself at a

Soldiers assigned to A Company, 1st Battalion, 30th Infantry Regiment, 1st Brigade Combat Team, 3rd Infantry Division, defend their simulated fighting positions during Decisive Action Rotation 17-05 at the National Training Center on Fort Irwin, CA, on 10 April 2017.

Photo by SGT Ernesto Gonzalez

physical and tactical disadvantage when exposed to a drastically different environment. Training in swamps, devoid of hills and valleys, will not naturally develop the leg muscles needed for scaling mountains. Our physical fitness preparation did not provide a suitable transition from the swamps to the mountains. Although there are no hills, almost every building at Fort Stewart has stairs, including our barracks. While not equivalent to the rigor of traversing mountains, ruck marching utilizing the stairs while wearing an assault pack or rucksack will toughen Soldiers' legs prior to arrival in California. Incorporating leg workouts such as front and back squats, weighted step-ups, and weighted lunges can prepare Soldiers for elevation in ways that rucking and running on flat terrain do not.

Photo by SGT Ernesto Gonzalez

Soldiers with A Company, 1st Battalion, 30th Infantry Regiment, defend their simulated fighting positions during Decisive Action Rotation 17-05 at the National Training Center on 10 April 2017.

A unit that trains in the swamps will find that — while many tactical basics transfer to the mountains — there is a learning curve that can cost lives in combat. Land-navigation skills in the swamp do not rely on terrain association as much as they do in the mountains. The open desert allows for greater line-of-sight, increasing the usefulness of radios and radio communication distances. Finally, Soldiers trained to return fire and seek cover in the swamps must be prepared for the enemy above or below them to avoid hesitation.

Experience in maneuvering forces around draws, over mountains, and through caves is not something that should be learned on the fly in combat. The mountains provide refuge where tanks and armored personnel carriers are unable to follow, and the desert floor retains so much heat that thermal optics can find it difficult to pick out dismounts. In order to effectively use the terrain, however, a rifle company requires maps that allow for route planning. The Fort Irwin military maps were unsatisfactory to this end. The prominence of the Tiefort Mountain range necessitated a contour interval of 20 meters, because any smaller interval of measure would have placed the contour lines on the mountain too close together. While this might provide sufficient information for an armored or mechanized force, it is far from sufficient for a light Infantryman. On the map, an area could look like a plateau flat enough for a helicopter to land on, but in reality be filled with peaks, saddles, boulders, and sheer drop-offs with less than a net elevation change of 20 meters. Infantry leaders should be aware that a map reconnaissance will not yield sufficient information to accurately plan missions. Platoons leaders and commanders must prepare to complete planning with incomplete information. Additionally, during defensive operations the micro terrain will enable excellent concealment to dismounted forces.

Although the Army has transitioned from counterinsurgency operations to a decisive action training environment (DATE), we will continue to fight in and around the cities. Our unit's training plan focused less on urban operations and more on fighting outside of population centers. This negatively affected the company's ability to fight at NTC, particularly in the main attack on the largest city, Razish, as well as during the brigade LFX. Every team and squad should complete a shoothouse LFX in the months prior to attending NTC. This step would greatly increase effectiveness and validate units prior to the live fire. NTC will not place targets inside of the shoothouse facilities unless training was conducted at home station. Finally, transitions from building to building and block to block are a critical area for training at the squad, platoon, and company levels in order to maintain tempo and proper mass against the enemy.

Another area of training we recommend is CBRN. We conducted sufficient training to don our masks and assume mission-oriented protective posture (MOPP) 4, but we did not have an opportunity to utilize the gas chamber, practice de-masking as a company, and employ the CBRN detection equipment properly. Finally, chemical decontamination is a deliberate, slow, and tedious process that requires training at echelons above company level for proper execution at NTC.

The final point we want to emphasize is the key role that squads and squad leaders play in every company's success. With well-trained and led squads, platoons will be successful, and so will the company. We conducted additional squad exercises after certification live fires and allocated time for squads to practice and rehearse during company-level training. After our squad-level training, each situational training exercise (STX) and LFX integrated anti-armor into the scenario, including our battalion force on force against 1-64 AR and the 3rd Battalion, 69th Armor Regiment.

Execution from Arrival to Departure for Home Station

After our arrival at NTC, several lessons became clearer as the rotation progressed, including ones involving rehearsals, movement tactics, defensive operations, fires planning, air mobility, defense against enemy air, Javelin employment, and the load plan. Our company did not excel in all of these areas, but we hope that our successes and missteps will better prepare future leaders. The most important lessons we learned revolved around rehearsals, Javelin employment, and the use of darkness and terrain to conduct undetected movement and maneuver.

Rehearsals prior to execution are the most important effort leading to mission success. Even on short-suspense missions, squad leaders and up conducted a walkthrough and talk-through rehearsal. This identified issues ahead of time and gave a more complete understanding of the mission to the junior leaders. Before we crossed the line of departure, we gathered the squad leaders and above and physically walked the movement including actions during contact and up to the occupation of the defense. Our best rehearsal was prior to the brigade live fire. We had sufficient time, space, and security to conduct a terrain model rehearsal, followed by a team leader and above walkthrough, and concluded with a 100-percent rehearsal on a large terrain model to show relative positions in time and space. Our iterative, heavily involved rehearsals enabled us to verify that all Soldiers understood the mission and their roles in it.

The structure and formation of our lead platoon during movement improved the odds of success in meeting engagements and hasty attacks on enemy encountered during movement. Most missions required a traveling overwatch formation, and the mountainous and hilly terrain prevented visibility for the length of a platoon, much less the company. To maximize protection and firepower to the front, our lead squad had a machine gun and a Javelin team under the control of the platoon leader. The commander and fire support officer (FSO) moved immediately behind the platoon leader with a mortar team. This enabled us to fight any threat we encountered with a small portion of the company without having to wait for movement up the column. We killed multiple observers and enemy vehicles without exposing the company to the threat. The company exploited the hours of darkness to move undetected. Nighttime movements in conjunction with the structure of our lead platoon protected the unit during vulnerable movements, even over relatively open terrain.

Every movement and attack ends with a hasty or deliberate defense. Because nearly all of our movements and attacks occurred at night, the leadership and Soldiers were exhausted while we tried to establish a defense. A problem we did not fully solve until the end of the rotation was how to utilize the company executive officer (XO) in the defense. Most nights, the XO moved with the company trains and the first sergeant (1SG) walked with the company, resulting in a more fresh and well-rested XO. A technique to modify the rest cycle is for the XO to establish the defense while the commander and 1SG rest and plan for the next night's mission. After initial occupation, the commander can rest prior to beginning the troop leading procedures for the next night's mission. After planning, the XO can sleep. This is somewhat non-doctrinal, but the fast-paced nature of an NTC rotation requires rest for the leadership or the overall performance of the company will suffer. Another improvement identified is to issue a standardized timeline by hour on the priorities of work in the defense. For example, if we specified the level of fighting position improvement by hour, it would have mitigated our fatigue and hunger. Although current doctrine recommends 33-percent or even 50-percent security at all times, the terrain at NTC allows — and indeed demands — different procedures. The company can conduct priorities of work, including rest, regardless of the time as long as avenues of approach are overwatched and the unit maintains 360-degree security. All crew-served

Photo by SGT Ian Schell

Soldiers assigned to the 1st Battalion, 30th Infantry Regiment conduct a combined arms rehearsal before a live-fire exercise during NTC Rotation 17-05 at Fort Irwin on 12 April 2017.

Photo by SGT Ian Schell

Soldiers with A Company, 1st Battalion, 30th Infantry Regiment, scan a building interior during NTC Rotation 17-05 at Fort Irwin, on 4 April 2017.

weapons (including the Javelins, M240B medium machine guns, and one mortar system) must remain manned at all times. This reduces the exposure of personnel to the enemy and to the elements; it also increases the ability of the company to manage the rest cycle and improve the defense.

During the rotation, we found that fires best enabled maneuver when the battlefield geography and distribution of fires allowed the lowest commander on the ground to clear fires within his sector or area of operations. Company internal mortars are the most responsive, and the approval authority should remain at the company level in spite of some impulses to maintain clearance at higher echelons. Our mortarmen were credited with most of our more than 100 enemy kills. Fires must be planned at battalion and higher echelons in order to be effective, and the company FSO should plan a minimum of four targets per mission, no matter the primary system. The fires response time at NTC does not always match the pace of ground operations. Anticipate times of more than 30 minutes from the initial request to effects on the ground. The only way to mitigate this is to continually request assets when needed and conduct advanced planning.

Another area identified for improvement was in the use of airlift assets to move dismounted infantry. Although the brigade had rotary wing assets available, including both the CH-47 Chinook and UH-60 Black Hawk, the brigade generally did not employ them to move Soldiers due to the extensive enemy air defense threat. In our 14 days at NTC, our company conducted one air movement, and only B Company, 1-30 IN conducted an additional air assault. Although air assault missions can be burdensome to plan and require assuming risk depending on the air defense artillery (ADA) threat, they can keep the enemy off balance and preserve Soldiers' physical stamina if used effectively. Additionally, helicopters can serve as an element of the deception plan and sell either a feint or a demonstration, thus enabling a greater chance of success for the main effort. The disciplined use of aviation assets to conduct air assaults and air movements can be a combat multiplier and provide brigades another method of changing the tempo to further weight the main effort against the enemy.

The defensive advantage to owning the sky during the daytime cannot be emphasized enough. On the side of a mountain, keeping an entire company camouflaged from ground-based observers is a manageable challenge. What poses a much greater danger are enemy air assets serving as observers for artillery. A light infantry company has limited organic options to counter air assets at a distance. Medium and heavy machine guns have an effective range shorter than the distance from which helicopters can observe. While the FGM-148 Javelin can destroy targets at a further distance than machine guns, the tactical value of each Javelin missile combined with the mobility of the helicopter make its anti-air usage ill-advised. We did not have any FIM-92 Stinger Air Defense systems attached to us during the rotation.

On the defense, the most important weapon system against an armored threat is the Javelin. To an extent, the company exists to employ and protect the Javelin because it is truly a tank killer, and it must be emplaced by the platoon leader and validated by the company commander as one of the first steps in establishing the defense. Each Javelin must be fortified and camouflaged in order to survive long enough to kill enemy tanks. The enemy at NTC always operated as company teams composed of both tanks and armored personnel carriers, and so analyzing the situation required determining the purpose of the enemy force facing us so that we destroyed the appropriate vehicle at the right time based on the commander's intent. The enemy will use the terrain to their advantage and will not skyline or expose themselves unnecessarily. Gunners must scan potential hide spots, and all members of the team need training on the weapon. Javelins require manning at all times, which may mean utilizing non-assigned Soldiers. Additionally, the number of AT4s assigned per platoon is not sufficient given the requirement to disperse the company over a large area. Each squad or even each team should carry one to enable a quick response to enemy vehicles.

For a platoon with multiple Javelin teams, the optimal configuration is to have three personnel per system: a gunner, an assistant gunner, and an ammo bearer. One team should move with the command launch unit (CLU) attached to the Javelin missile while the other team moves with the CLU detached. A detached CLU is a valuable optic that the assistant gunner can use to identify targets. Attaching the CLU takes time, so the second team should have the CLU attached and rotate the weight of the system between the gunner and assistant gunner. Assistant gunners equipped with PSQ-20 night vision devices can easily identify the heat signature of

a personnel carrier or tank turret at night, even if the top is not exposed.

One of the keys to success during execution is a well-thought out load plan with different mission-set equipment configurations. During NTC 17-05, our brigade set the uniform as Improved Outer Tactical Vest (IOTV) without plates, with guidance to upgrade to plates when stationary. However, wearing the IOTV without the plates does not provide sufficient protection to bullets while still increasing the load and strain on the Soldier. We recommend that future leaders accept the risk and create different mission configurations: rucksack only, assault pack only, IOTV with assault pack, and IOTV only. The Light Mobility Tactical Vehicle (LMTV) available to infantry companies can accommodate the above equipment as well as company-level gear as long as the 1SG and XO personally supervise loading and unloading.

The following are further recommendations beyond IOTV posture for Soldier load plans based on our lessons learned. Wet- and cold-weather gear beyond a poncho and poncho liner is unnecessary, especially when Soldiers sleep in their mandatory Joint Service Lightweight Integrated Suit Technology (JSLIST). Soldiers must carry at least six quarts of water because the terrain does not provide collection opportunities for iodine water purification. One Soldier per squad should carry a rudimentary mountaineering kit, consisting of a rope and a few carabiners to aid in ascension and descent. Beyond those items, Soldiers should only carry food (as dictated by mission necessity), ammunition, spare socks, a lightweight sun cover, goggles, entrenching tool, empty sandbags, and minimal weapons cleaning and hygiene kits. This configuration reduces exertion and requires the leaders to determine the appropriate load so that Soldiers are fit to fight on the objective. Focusing on effectiveness on the objective will greatly reduce the amount of extraneous equipment and will allow the company vehicle to load primarily food and ammunition in spite of the requirement to carry personal gear.

Final Thoughts

Although it is not a typical experience to rotate light infantry forces into the deserts of Fort Irwin, we believe that Soldiers who undergo it gain a valuable experience that will benefit the Army at large. We recommend that the Army continue to mix light and armored forces into the rotations and not simply fight as separate brigades. In order to have a more effective organization at NTC, units must be attached to unlike organizations during training to appreciate both the positive and negative traits of both formations. While 1-30 IN benefited from attaching tank company teams during battalion force-on-force operations, our sister battalions of 1-64 AR and 3-69 AR did not receive light infantry companies until we were already at NTC, increasing the challenge of effective employment. One example of this was when A/1-30 IN was ordered to breach into a town and seize it from the enemy in conjunction with 1-64 AR. Our company moved in LMTVs through the open desert and had to dismount outside of effective small arms range from the town, adding additional time to the attack. One technique would be for a mechanized infantry company to breach the obstacle and establish a foothold in the town. Then the dismounted infantry company would move much closer mounted while the breach occurred to maintain the initiative against the enemy.

During NTC 17-05, A/1-30 IN destroyed numerous enemy and accomplished every mission we were assigned. Although we touched briefly on numerous topics, we did not have the space available to go into great depth in this article. We hope that the lessons learned from our experiences in preparation and execution, especially the importance of rehearsals, the use of the Javelin, dominance of terrain, and night movements will improve performance for other organizations as they prepare to fight and win in combat.

At the time this article was written, **CPT Michael Kearnes** was serving as commander of Headquarters and Headquarters Company (HHC), 2nd Battalion, 69th Armor Regiment. During the rotation to NTC, he served as commander of Alpha Company, 1st Battalion, 30th Infantry Regiment at Fort Stewart, GA. Prior to this assignment, he served as a platoon tactical trainer and battalion logistics officer with the 5th Ranger Training Battalion in Dahlonega, GA. CPT Kearnes was commissioned as an Infantry officer in 2009 and graduated Ranger School in August 2010.

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Soldiers with the 1st Battalion, 30th Infantry Regiment scan their surroundings during NTC Rotation 17-05 at Fort Irwin on 9 April 2017.

Photo by SGT Ernesto Gonzalez