## Part II

 Infantry Attacks at NTCCOL BRIAN J. HARTHORN LTC MICHAEL S. FARMER

Author's Note: This is the second of two articles sharing lessons learned, best practices, doctrinal discussion, and opportunities offered at the National Training Center (NTC) at Fort Irwin. Read Part I at: http://www.benning. army.mil/infantry/magazine/issues/2017/JAN-MAR/pdf/1)Farmer_InfAttack.pdf. This article covers the last three scenarios: Forcible Entry: An Airborne Interlude; Ambush at Bravo Pass; and Raid on Puma-1: Planning Backwards from the Objective.

## Forcible Entry: An Airborne Interlude

The ramp on the $\mathrm{C}-17$ lowered and a blast of hot desert air smacked the paratroopers of "Team Fires" in the face. Through the red light they watched the Dual Row Airdrop System (DRAS) platform carrying an M119 105mm howitzer ease its way down the dual tracks and out into the darkness. Ten minutes later - P-Hour - nearly 700 paratroopers filled the night sky above Freedom Flight Landing Strip (FLS). In just a little over 10 minutes, the airborne infantry battalion task force descended on the remote airfield. Little groups of paratroopers (LGOPs) rapidly formed up into rifle squads, platoons, and companies. Teams "ISO-Lead" and "ISO-Trail" secured the east and west ends of the airfield. The same paratroopers who watched their M119 howitzer disappear only minutes earlier now began tearing at the lashings securing their guns and ammunition. Sappers, members of "Team Clear," did the same with a Bobcat as they prepared the light airfield repair package (LARP). They had slightly more than an hour to proof the airfield before the first air-land packages would begin arriving. Team Fires now had its guns in action and was responding to calls for fire from Team ISO-Lead, which was identifying approaching enemy forces counterattacking north of Objective X-Ray 1, one of many initial assault objectives which the airhead line comprised. The decisive


Paratroopers assigned to the 2nd Brigade Combat Team, 82nd Airborne Division and XVIII Airborne Corps conduct a joint forcible entry operation as part of Operation Dragon Spear at Fort Irwin, CA, on 6 August 2015. (Photo by SSG Jason Hull)


A C-17 Globemaster III aircraft takes off following air-lands on the objective secured by a joint forcible entry operation for Operation Dragon Spear at Fort Irwin on 6 August 2015. (Photo by SSG Jason Hull)
operational force, Team Assault, was already in direct-fire contact with enemy forces on Objective Cleveland where the airfield infrastructure was located. As determined as the enemy was to put up a good fight, they simply could not reposition their crew-served weapons fast enough. At P+1.5 - only 90 minutes after the first jumper exited a high-performance aircraft - the first air-land package arrived. With added mobility and firepower from high mobility multipurpose wheeled vehicle (HMMWV) gun-trucks, MRZR all-terrain vehicles, and Stryker Infantry Carrier Vehicles (ICVs), they would assist in expanding the lodgment around the newly created aerial port of debarkation (APOD). The faster they expanded the security perimeter around the landing strip, the sooner they could introduce even more combat power in support of coalition forces conducting operations to restore the international boundary between Atropia and Donovia. Over the next 24 hours, the paratroopers would successfully conduct offensive operations at four separate urban population centers in support of coalition objectives. A prepared enemy may have been able to defeat a single light infantry task force, but surprise was on the side of the paratroopers. The enemy security forces simply couldn't react fast enough to the introduction of so much combat power in such a short amount of time.
Observations - Completed in March 2015, the C-17-capable Freedom FLS offers more than 67 seconds of green light to airborne task forces and a realistic austere APOD for all types of brigade combat teams desiring to integrate joint forcible entry, air-land, and lodgment expansion-related tasks into their rotational scenarios at NTC.
Ambush at Bravo Pass
The lead element of the Stryker infantry battalion, the task force scouts, moved north mounted on its Strykers through the tight mobility corridor commonly referred to as "The Passage to India" or "PTI." They had not made direct-fire contact yet. If all went according to the plan, they would move north through the PTI and then turn west through Bravo Pass into Echo Valley. Once in Echo Valley, they would continue moving northwest toward the FSS Gap where the battalion would destroy a defending enemy mechanized infantry company. All was going well so far. In fact, it was eerily quiet. Why hadn't they at least received some enemy indirect fires? The lead Stryker Reconnaissance Vehicle (RV) reported over the battalion's operations and intelligence (O\&I) net that there was a mine-wire obstacle crossing Bravo Pass. Before the S2 could reply, the trail vehicle of the scout platoon was destroyed by an enemy AT13. They were trapped! All four of the platoon's vehicles were stacked on top of each other in a column formation with less than 50 meters between each RV. The lead vehicle was immobilized by the obstacle, and the trail vehicle was a burning hulk. Bravo Company, also moving in a tight column, approached behind the scout platoon. In less than five minutes its lead, fifth, and tenth ICVs were also destroyed by AT- 5 fires. It was almost as if the AT-5 gunner was picking every fourth vehicle after the lead ICV to engage. To compound matters, the destruction included the catastrophic loss of two rifle squads, a weapons squad, two Javelins, and two M240B machine guns. A platoon was
gone just like that. The remainder of Bravo Company's Infantrymen dismounted from their ICVs. The cold realization set in that they were in the middle of an L-shaped ambush.
An understrength enemy infantry platoon was positioned on the northern wall of Bravo Pass. They were the ones who destroyed the scout RVs with AT-13 fires. With the lead vehicle trapped against the obstacle and the trail vehicle destroyed, it was just a matter of time before they finished off the remainder of the scouts. Meanwhile, a pair of enemy BRDM-2s with AT-5s was positioned approximately three kilometers to the northeast. They had let the scout RVs pass by without a sound, and then they began picking off the Bravo Company ICVs starting with the lead vehicle and then working on every fourth vehicle afterwards. They didn't have to traverse their sights very far from one ICV to the next. Similar to the scouts, Bravo Company had been traveling in column with only 50 meters separation between vehicles. Despite the complex, canalizing terrain, Bravo Company had not dismounted its Infantrymen. The company thought it had a free ride through the passes and that the scouts would provide them advanced warning of any pending attack. Unfortunately, they had closed to within 200 meters of the trail scout vehicle so by default the scouts were no longer a forward reconnaissance element. They were now "canaries" falling by the wayside, providing only a few precious seconds of advanced warning of the impending disaster. While the Bravo Company's Infantrymen poured out of their remaining ICVs and attempted to locate the direction of the ambush, the battalion mortars went into action. The task force commander knew he had to get some suppression and obscuration between his column and the enemy defending the obstacle in Bravo Pass. Although they did not score any enemy battle damage, the mortars did provide effective suppressive effects and obscuration. The enemy's dismounted AT-13 gunners had to reposition, and the obscuration allowed the sappers from the attached engineer platoon to move forward to the obstacle. They were efficient breaching the mine-wire obstacle and within 15 minutes reported having a lane created. Through all of the excitement of breaching the obstacle while in direct-fire contact, they didn't notice that 800 meters to their west an enemy Family of Scatterable Mines (FASCAM) minefield was being deployed to reconstitute the blocking effect in the pass. Charlie Company didn't notice either and blindly drove through the breach lane into the FASCAM. In less than two minutes, nine ICVs with accompanying rifle and weapons squads were all destroyed. The company was combat ineffective. The Bravo Company Infantrymen were still alive, but almost all of their ICVs were destroyed from the deadly BRDMs patrolling to their northeast. They still did not know where the enemy soldiers were because they continued to mill about in the low canalizing terrain. If they had simply moved up to the high ground dominating the pass complex, they would have seen the horror that was materializing still further to their northeast. Beyond the two AT-5 BRDMs, which were now black on ammunition after emptying their rounds into Bravo Company, was an enemy motorized infantry company (MIC). It was not just any MIC, but the very one the company had hoped to attack in the FSS Gap. Now it was moving southeast down the Silver Lakes Main Supply Route (MSR) at a high rate of speed. They circled out of sight like a curious shark before turning back to the southwest and then subsequently attacking into the rear of the battalion column. Fortunately, Alpha Company, informed of the fates of the other companies, had dismounted its Infantrymen and was able to position a couple of Javelins to destroy a platoon's worth of enemy fighting vehicles, taking the momentum out of the enemy's attack.


Alpha and Bravo Passes clearly display the complex terrain overlooking the mobility corridors. (Photo courtesy of authors)

Observations - Units must be in a fighting formation before they make direct-fire contact. This process starts during mission analysis with the identification of key terrain dominating complex, canalizing mobility corridors. In this case the rotational unit did not identify the terrain at higher elevations dominating PTI and Bravo Pass as being key terrain. Had they done so, they likely would have concluded that there was a distinct possibility of making contact with the enemy in either of these two locations. Identification of this probable line of contact (PLC) should have led to development of a probable line of deployment (PLD). This PLD should have served as a trigger for the task force scouts to utilize key terrain at higher elevations to gain a better vantage point to identify enemy forces in these two adjoining passes. Had they simply dismounted to the hills on either flank of the PTI, they would have detected both the enemy infantry force on the north wall of Bravo Pass as well as the two AT-5 BRDMs located further northeast of the passes. Instead, they traveled mounted in the canalizing terrain at low elevation and were destroyed in detail. Conducting time-distance analysis of the terrain to be traversed should have also shaped planning for reconnaissance in depth. Identification of the aforementioned PLD and corresponding requirement to dismount scouts to observe the far side of the passes should have resulted in a corresponding estimate of time required to conduct reconnaissance forward of the task force main body. This did not occur, and the next company in the order of movement traveled on the heels of the scouts. The scouts now could not realistically provide the next rifle company any advance warning of enemy contact, and the lead rifle company compounded a bad situation by continuing to move into the kill sack of the enemy's ambush.

If a unit does not have shared understanding of the enemy's disposition, then this situation mandates that the unit utilize a movement-to-contact method of attack. This means that the battalion should have a reconnaissance element to find the enemy, a platoon-sized maneuver element to act as a forward security element (FSE), and a company minus-sized element (usually the parent company of the FSE platoon) to act as the battalion's advance guard (AG). The battalion's two remaining companies should be echeloned to the right and left rear respectively of the AG, creating a battalion task force wedge formation capable of reacting to enemy direct fire contact in almost any direction. The FSE is tasked with destroying the lead enemy platoon it comes into contact with and subsequently fixing the next enemy force it comes into contact with. The AG is tasked with destroying remnants of the force fixed by the FSE and subsequently fixing the next follow-on enemy force it comes in contact with. This allows the battalion commander to develop the situation and determine how to best maneuver his remaining two companies. Stryker infantry units should ensure that they dismount their Infantrymen prior to making direct-fire contact with enemy antitank systems. Units that achieve mutual, symbiotic support between ICVs and maneuvering rifle squads are most lethal. In order to accomplish this, the unit must identify PLCs (as discussed previously) to determine PLDs triggering the dismounting of Infantry forces at either an objective rally point (ORP) or assault position.
In this case, the scout platoon and Bravo Company failed to perform their duties related to reconnaissance, the FSE, and the AG respectively. However, the rapid destruction of these units necessitated a reconstitution of the FSE-AG movement-to-contact formation. The next company in the order of movement should have assumed duties as the reconnaissance-FSE-AG formation and dismounted its infantry to key terrain at higher elevation to first find the enemy in question. Then they could have subsequently fixed and destroyed the relatively small enemy force in Bravo Pass. This action in turn would have provided the battalion commander with additional time to further develop the situation and determine his next best course of action. In this case, the remaining Infantry companies were content to remain in the lower canalizing terrain which prevented them from gaining awareness about the evolving enemy situation. They spent the remainder of this battle reacting to enemy contact instead of moving to key terrain in an effort to wrestle initiative away from a relatively small enemy force.

## Raid on Puma-1: Planning Backwards from the Objective

The full force dry rehearsal was ugly. Rotational unit leaders gathered on the objective consisting of a relatively small multi-story compound with three small buildings. They conducted a hasty informal after action review (AAR) on their actions on the objective. They had enough daylight to conduct one more rehearsal in preparation for the following day's attack under live-fire conditions. As they walked the operation "backwards" from the objective to the assault and support-by-fire (SBF) positions and then subsequently back to the ORP, they achieved shared understanding of how to best synchronize the attack on Puma-1.

The next morning 10 minutes of 155 mm -delivered smoke obscuration descended upon the northwestern edge of the Puma-1 objective. Light winds carried the smoke back across the eastern edge of the objective toward the


The Puma-1 objective is situated in an isolated valley to the north of Alpha Pass. (Photo courtesy of authors)
friendly direction of assault. Two minutes into the artillery-delivered obscuration, the battalion mortars rained down 120 mm high explosive (HE) rounds on pre-planned targets for four minutes, suppressing key terrain surrounding the objective to include ground that would eventually serve as the Stryker infantry company's SBF position. There were now four minutes of artillery delivered obscuration remaining. The 120 mm mortar fires lifted, and the company's 60 mm mortars provided an additional two minutes of HE suppressive effects. Two minutes of artillery-delivered smoke remained.

Meanwhile, the support element was creeping behind the barrage of mortar rounds. The minimum safe distances (MSDs) were calculated perfectly. The 155 mm smoke targets were impacting on the far side of the objective more than a kilometer away. The support element had moved to within 800 meters of the pre-planned 120 mm mortar targets, and now the barrage of 60 mm mortars allowed them to creep a little closer. Just a few more seconds and they would be slapping the tripods down for their M240Bs.
Six minutes of suppression had been achieved by the various mortar systems, and now it was the Strykers' turn. A section of ICVs unmasked themselves to provide an additional two minutes of alternating, sustained rates of fire from their two M2 . 50 cal. machine guns. The breach and assault elements raced as fast as they could behind masking terrain knowing that the ICVs were suppressing the objective long enough for them to get to their assault position. If they moved too slowly, then their movement would be consuming time of suppression from the M24OBs that should be locking their guns into their traversing and elevation (T\&E) mechanisms right about now. Rounds were now complete on the artillery smoke mission, and the smoke would be dissipating soon.

The ICVs now lifted their fires and backed up behind covering terrain. From the southeast of the compound, the six M240B machine guns woke up the canyon, firing simultaneously at a cyclic rate for 10 seconds and then seamlessly transitioning to alternating fires at sustained rates of fire for the next three minutes and 50 seconds. The commander had estimated he needed 12 minutes to get his breach and assault elements from their ORP to the assault position. They got there about 90 seconds faster than anticipated.
Sappers then moved forward with their Bangalore torpedoes. A green star cluster arched into the sky from the assault position. The support element platoon leader shifted his fires left of target reference point (TRP)-2 and called the company commander to confirm the shift. Now the sappers tossed two smoke grenades between the wire obstacle and the compound apertures facing in their direction. The smoke grenades didn't really obscure the breach force, but they did buy enough time for another sapper to move forward and ignite a smoke pot. Another minute to allow the smoke to billow and they were in business. The sappers inserted the Bangalore perpendicular to the wire and rushed back to their position in defilade where the assault element anxiously waited. Subordinate leaders confirmed they were outside of the Bangalore's surface danger zone (SDZ), which now ran the seam between the support
and assault elements. Boom! The Bangalore detonation signaled the shifting of fires by the support element left of TRP-3, and initiation of one minute of suppression by the assault element's local SBF. They just had to suppress two apertures facing their direction of assault: a doorway on the ground level and a second story window. The weapons squad leader relayed that he was shifting right of his TRP, and the assault element moved forward through the smoke filled breach lane. The lead four-man stack attached a flex-linear charge to the main entryway door. Boom! The door was down and the support element lifted fires going into a "watch-and-shoot" mode oriented on terrain to the west of the compound. They had done a good job of walking their wall of steel into that "sweet spot" of 15-20 degrees in front of the sappers and assault element maneuvering toward the objective. Furthermore, the company executive officer ( XO ) had effectively planned the support element's ammunition requirements with the platoon sergeant. They had performed the "machine-gun math" to determine what they required for their M240Bs based on the required time of suppression in support of the breach and assault elements. The lead fire team now flowed into the compound. Four-man stacks methodically worked their way from room to room, always mindful of the direction of assault and their corresponding "hot walls." The stairway to the second floor was a little tricky, but the full dress dry rehearsals on the previous day paid off with more efficient footwork by the fire teams. The company reached its limit of advance, but there was no rest for the weary. They had a follow-on mission to support the battalion's continuing attack. Time to rinse and repeat!

Observations - The concept of echelonment of fires is equally applicable to both indirect and direct fires in support of maneuvering assault and breach elements. There are numerous techniques outlined in our doctrine for planning and controlling both direct and indirect fires. Critical to the successful echelonment of fires is identification of the required time of suppression to support maneuver. In this case the unit took advantage of their full force dry rehearsal to identify the amount of time it would take the breach and assault elements to execute the breach and conduct the subsequent assault from their last covered and concealed position (their assault position) to establishment of the foothold. They then calculated the amount of time it would take those same two elements to move from their ORP where they dismounted their ICVs to the assault position. They also calculated the amount of time required for their support element to move dismounted from the ORP to their respective SBF positions. Finally, they worked their way backwards to calculate the amount of time it took for their Stryker ICVs to move from their PLD to the ORP where they would dismount their Infantrymen. All of these times provided the unit commander with required times of suppression by phase. The commander could then develop a concept to echelon 155 mm artillery-delivered


Figure 8 - Reverse Planning Sequence (FM 3-21.20)
obscuration as well as the suppressive effects from 120 mm mortars, 60 mm mortars, mounted .50 caliber machinegun fire, and dismounted M240B machine-gun fire to cover these identified times of suppression.
Performing this "machine-gun math" (see Chapter 6 of Marine Corps Warfighting Publication 3-15.1) for each of these applicable delivery systems also allowed the task force sustainers to forecast Class V requirements in advance. The commander used applicable SDZs and MSDs to develop graphic control measures triggering the shifting and lifting of fires by delivery system (both direct and indirect fires). They utilized applicable SDZs to develop TRPs for their support elements and MSDs to develop phase lines tied to triggers for indirect fire support by caliber. TRPs were refined to tie into clearly identifiable terrain features to include corners of buildings that corresponded to 15 degrees of separation from the approaching assault elements. Clear direction was provided to the support platoon leader on how to control and distribute fires from his M240Bs. The commander wanted at least 10 seconds of simultaneous fires from all M240Bs at a cyclic rate of fire before they transitioned to alternating fires at sustained rates of fire. The commander also achieved a near perfect "right angle" of 90 degrees between the assault and SBF positions. This "battlefield geometry" allowed the support element to maximize the length of time that it could provide suppressive fires in support of the breach and assault elements as the Soldiers exposed themselves from the assault position. If the angle between the assault and SBF positions is too small, then it forces the support element to shift and/or lift fires prematurely in order to maintain a minimum of 15 degrees in front of the maneuvering assault force (or 40 degrees if firing from a bipod) to mitigate SDZ gun target line concerns.

Doctrine states that the only time a machine gun is fired from a bipod is during chance contact. Utilization of tripods and T\&E mechanisms allows the machine-gun crew to effectively deliver a precise, tight cone of fire creating an accurate beaten zone to achieve the desired suppressive effects. Furthermore, the increased accuracy of a machinegun mounted on a tripod and employing the T\&E increases accuracy facilitating the ability of the machine-gun crew to provide the maximum duration of suppression in front of maneuvering assault forces. Therefore, we strongly recommend utilization of machine guns mounted on tripods employing T\&E mechanisms to achieve the best suppressive effects while mitigating risk to maneuvering assault and breach elements.
Finally, units must plan to conduct SOSRA (suppress, obscure, secure, reduce, and assault) for all offensive operations. Even if the enemy obliges by not emplacing any obstacles, then they have simply eliminated the requirement for the unit to conduct the " $R$ " or reduction of any man-made obstacles. There is still a requirement to achieve suppression, obscuration, and security in support of the assault for any offensive operation. Units at NTC often do not plan for the reduction of enemy obstacles during the conduct of offensive operations, and as a result they incur an additional unforecasted time of suppression requirement while they pass attached engineer assets forward from the rear of their formation.

## Continue The Mission...

The mission of the Infantry is to close with the enemy by means of fire and maneuver in order to destroy/capture him or to repel his assault with fire, close combat, and counterattack. Better than ever, the NTC battlefield replicates today's contemporary operating environment as well as the decisive action battlefields of tomorrow. The aforementioned C-17 capable flight landing strip west of Crash Hill, numerous urban terrain centers to include the metropolis-like city of Razish, and an evolving opposing force (OPFOR) that presents both paramilitary and near-peer competitive conventional threats offer increased opportunities for all types of infantry forces to hone their skills on complex terrain. As our Army continues to train to win in a decisive action environment, its "crown jewel" offers the full spectrum of threats from conventional to hybrid, paramilitary forces fighting across varied types of terrain to include operations in the open desert, rocky ridgelines at high elevations, as well as complex urban population centers. Whether it's destroying an enemy armored force, seizing key terrain dominating a critical mobility corridor, conducting a joint forcible entry operation, or clearing several city blocks, the mission of the Infantry remains unchanged.

Different organizational modified tables of organization and equipment (MTOEs) with their various capabilities and limitations may alter the methods of infiltration and "battlefield calculus," effecting the echelonment of both direct and indirect fires. However, the principles of finding the enemy and making contact with the smallest possible element to support subsequent maneuver still ring true. Many leaders talk gloriously of "the art of our profession," but we would submit that it is difficult to visualize, describe, and direct forces effectively to demonstrate mastery of "the art" if one does not first know "the science of our profession." Indeed, the support element must demonstrate its
mastery of "machine-gun math," its control and distribution of fires (both direct and indirect), and the integration of SDZs and MSDs into development of appropriate fire control measures in order to deliver suppressive fires for a required time of suppression based on analysis of the terrain and distance from the assault position to the objective. Failure to properly plan and execute this "science" often results in a failure to deliver the assault element to the objective. Identification of key terrain dominating canalizing mobility corridors is not enough. The real question once you identify that key terrain is: "What are we going to do about it?" If it is indeed key terrain, then do we want to get our Infantry to it first before the enemy gets there? Or can we accept risk by simply covering that key terrain with observation and fires? Infantry forces must also understand how to task organize covering and guard forces to facilitate the commander's development of the situation and subsequent maneuver during the movement to contact. Furthermore, they must understand that "Step Zero" is simply another way of articulating that the timeless number one priority of work continues to be establish/maintain local area security at all times. We hope you enjoyed our humble offering of tactical vignettes. We certainly could have presented several more examples of our Infantrymen in action here at the National Training Center, but we'll leave that to another future edition of "Infantry Attacks at NTC." Till the next ORP...

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Paratroopers assigned to the 1st Battalion, 325th Airborne Infantry Regiment, 2nd Brigade Combat Team, 82nd Airborne Division, begin an assault on an enemy-held urban environment as part of a live-fire range at NTC on 10 August 2015. (Photo by SSG Jason Hull)

