

Sgt. 1st Class Nicholas Bisnett, assigned to Reconnaissance Platoon, Headquarters and Headquarters Company, 3rd Battalion, 41st Infantry Regiment, 1st Brigade Combat Team, 1st Armored Division, returns from a round of shooting 16 March 2017 during the unit's annual Table IV gunnery at Doña Ana Range Complex, New Mexico. (Photo by Winifred Brown, Fort Bliss Public Affairs Office)

Strykers on the Mechanized Battlefield

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n a dusty morning in July 2015, a combined Stryker-Abrams battalion task force surged across the high desert of the National Training Center (NTC) at Fort Irwin, California, toward two mountain passes. The Strykers fell behind the tracked

Abrams tanks as they drove off-road in the rolling terrain but caught up just in time to pass through the narrow cuts between the mountains and onto the plains below. As the Strykers drove into the open terrain, they were quickly cut down by an enemy armored force. Their light armor was no match for the main gun rounds from enemy tanks combined with the cannon fire from enemy infantry fighting vehicles. Few Strykers survived the engagement in the open ground against the heavier enemy force, and that engagement blunted the spearhead of the brigade's attack. In the aftermath of this defeat, it is likely that many of those involved were asking themselves: Is there a better way to employ the Stryker? That question was not new, of course. In the early days of the Stryker, critics observed that "it does not provide the firepower or the protection to transform army light infantry units into a 'medium weight force.""1 Given the Stryker's inherent limitations, how should it be employed against a mechanized opponent? And, fifteen years after the introduction of the Stryker brigade combat team (BCT), has the Army determined its role on the battlefield?

We will attempt to answer the thorny question of how Strykers might best be utilized on the battlefield. First, we will look back at the origin of the Stryker BCT and how it was initially envisioned. Then, we will provide a brief recap of the Stryker's use in Iraq and Afghanistan, looking at the role it assumed during missions in the respective counterinsurgency (COIN) campaigns. Next, we will discuss the Army's overall shift from a focus on COIN operations to the core competencies of high-intensity warfare. Finally, we will take a look at several examples of the Stryker being used in this new role at the NTC and examine what operational approaches best capitalize on the inherent strengths of the Stryker platform. We will close with a discussion of the way ahead for training and employment of the Stryker in the future.

Fielding and Validation of the Stryker

When Gen. Eric Shinseki became the Army chief of staff in June 1999, he had a clear vision for changing the structure and strategic responsiveness of the Army.² Central to this vision was the creation of a new interim BCT at Fort Lewis, Washington—one that would be a model for future brigades to be fielded or transformed. These new brigades would employ a "medium-weight" armored vehicle—light enough to be transportable by C-130 cargo aircraft but heavy enough to provide basic protection and firepower to infantry squads. This idea of a "medium" unit to bridge the gap between light and heavy forces has deep roots in the Army, perhaps described most succinctly in "Three Kinds of Infantry" by then Col. Huba Wass de Czege. The vulnerability of light units initially sent to Operation Desert Shield in 1990 highlighted the need for this type of unit.³

In November 2000, the Army announced that it had selected a wheeled vehicle known as the LAV III (third-generation light armored vehicle), which would be developed into several variants for reconnaissance, mortar, command, and infantry-carrying roles. Delivery of the vehicles began in spring 2002, when Company A, 5th Battalion, 20th Infantry (known as 5-20 Infantry), received the first fourteen Strykers (as the vehicle had been newly named) and began training with them. The first major test of the newly formed Stryker brigade took place during Millennium Challenge 2002, a major joint exercise that included transportation of Strykers by C-130 aircraft from Fort Lewis to Fort Irwin, California, and return movement by high-speed sealift catamaran. Brigade-level training exercises at the NTC and also at the Joint Readiness Training Center (JRTC) in Louisiana served as the final validation of the fully-equipped Stryker brigade, now organized as the 3rd Brigade of the 2nd Infantry Division.⁴

These exercises showcased both the shortcomings and strengths of the Stryker. In vehicular combat against a mechanized opponent at the NTC, Strykers were quickly "destroyed," but they excelled in restricted terrain and infantry ambushes against their armored foes.⁵ The JRTC exercise better highlighted the new possibilities enabled by the operation-

al mobility of a Stryker

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brigade. Col. (retired) Charles Hodges, a battalion operations officer at the time, recalled the brigade attacking the infamous Shughart-Gordon urban warfare training facility twelve hours earlier than a typical light infantry unit, catching the enemy off balance and winning the battle decisively as a result.⁶ Though the Stryker brigade was still regarded with some skepticism, it was certified to deploy by the U.S. Army Forces Command after completion of its brigade-level training exercises.

Stryker Employment in Operation Iraqi Freedom

3rd Stryker BCT arrived in Iraq in December 2003, the first of many Stryker deployments that would follow over the next eight years. This deployment served as the first showcase of the Stryker vehicle and the associated reorganized brigade.⁷ Two of the most unique aspects of the Stryker brigade proved to be its operational mobility and its advanced command-and-control network compared to the mechanized and light units already operating in Iraq. Without the logistical support requirements of a heavy mechanized force, Strykers could pivot much more quickly from operating in one region to another across hundreds of miles. Hodges recalled the flexibility of the Stryker brigade during Operation Black Typhoon in Iraq:

All three Stryker maneuver battalions were involved ... one night where we were truly

spread all over Nineveh Province, from Mosul all the way out to the Syrian border. 5-20 Infantry was doing raids on the Syrian border, we were doing a major operation in Mosul and down in [Qayyarah West Airfield], all at the same time ... it showed the depth and breadth we could operate in.⁸

In addition, the Stryker platform itself proved to be very effective in urban combat. Lt. Col. Theodore Kleisner, who served in 3rd Brigade on later Iraq deployments as a company commander, offered some thoughts:

The Stryker ferried more people and more stuff. A HMMWV had five people, two stayed with it, so maybe three dismounted; [Strykers] dismounted nine. As far as the uniqueness of the Stryker goes, we used it to [enable our infantrymen to] get over walls, to get into second floors. We did rolling dismounts, dismounts at the "X." ... We used Strykers to maneuver around and to stop bullets. We stayed in them until we thought we were at a point where we needed to establish dominance of terrain.⁹

During the "Surge" in Iraq in 2007 and 2008, Stryker elements were moved rapidly and repeatedly. A notable example is the experience of 5-20 Infantry, which was shifted from Mosul to Baghdad to Baqubah over the course of 2007.¹⁰ By the time U.S. involvement in



Iraq began winding down in 2010, there were eight Stryker BCTs, nearly a quarter of the active force. However, Strykers began to see heavier employment in Afghanistan, with 3rd, 5th, and 4th Brigades of the 2nd Infantry Division deploying in subsequent years.¹¹

Strykers from Company C, 5th Battalion, 20th Infantry Regiment conduct a short halt 20 May 2016 during training at the National Training Center, Fort Irwin, California. (Photo by Spc. Lawrence Wong, U.S. Army)

Transition to Decisive Action

As American involvement in Iraq and Afghanistan drew down, the Army began looking for a new focus after a decade of COIN-oriented training and combat. Col. Ross Coffman, the commander of the Operations Group at the NTC, described it: "As we move from the majority of our forces being deployed in support [of] OIF/OEF to what we have today, the decision was made at the Army level to move toward decisive action operations at our training centers. ... If you can do decisive action, you can do anything."12 Decisive action is the term used by the Army to describe a combination of wide area security and combined arms maneuver operations, but informally the term is used to describe the shift from COIN-focused operations toward more traditional conventional warfare against opponents with near-peer technology and force structures. Coffman elaborated: "The [decisive action training environment] scenario is a prescriptive enemy set ... based on evolution of enemy forces, we introduce additional capabilities ... we are replicating a near-peer threat depending on the level of training [at which]

the rotational unit arrives.^{"13} As a result of the Army's change in focus, its training centers took up the challenge of developing training scenarios to rebuild traditional maneuver competency on a high-intensity battlefield. The Operations Group at the NTC helped drive this shift, providing new training options to Army division commanders, who used the rotation to ensure unit readiness for the most likely deployments. Coffman explained, "The numbers of forces, type of terrain and environment can all be changed We develop scenarios that play to the strengths of that organization while also improving their weaknesses by forcing commanders to make decisions in a time-constrained environment."¹⁴

By late 2011, the Army also began holding field tests of the new near-peer enemy force at training centers with rotations at the Joint Multinational Readiness Center in Hohenfels, Germany. The 2nd Stryker Cavalry Regiment and the 173rd Airborne Brigade each conducted a month-long exercise against a near-peer enemy set, providing a valuable baseline for further development of the decisive action training environment. As the Army was shifting focus from COIN to decisive action, changes were also taking place at Joint Base Lewis-McChord, home of the original interim BCT. In 2012, there were three independent Stryker brigades stationed on the post, all falling under the direct control of I Corps. The brigades had been on a near-continuous deployment cycle since their conversion to Stryker formations in the early 2000s. The repeated deployments had reduced their equipment and personnel readiness to relatively low levels. At this point the 7th Infantry Division was reactivated to serve as a headquarters for these three brigades and to transition them from their deployment-focused training cycle to a steadier state of deployment readiness.

Lt. Gen. Stephen Lanza, the I Corps commanding general, served as the initial commander of the 7th Infantry Division. He recalls: "The first direction was 'build back the readiness of the Stryker formation' When we took over the division, the Strykers were in a tremendous amount of disrepair, to the point where we had to stand down the brigades to build Stryker readiness, because they were just not ready."15 He further elaborated: "When we stood up the division, we had a 26 percent nondeployable rate, we had OR [operational readiness] rates that were [low]—we could not fight decisive action because we were stuck in ARFORGEN [Army Force Generation]."¹⁶ A focus for the newly established 7th Infantry Division was training Stryker formations for combat against a near-peer threat. Lanza said, "There's a lot of things that had to change in terms of our approach to Stryker training at home station, because we were focused on COIN ... and we had a big discussion about the platform itself, because we did not want to employ it as a Bradley."17

The deficit in experience commanding Strykers in maneuver against a near-peer threat led 7th Infantry Division to work with the NTC to develop the first full decisive action rotation for a Stryker brigade. Lanza recalls the process of creating this rotation:

A lot of our initial discussion was designing a CTC [combat training center] rotation ... with the requisite kind of force ratios and requisite kind of OPFOR [opposing force], in terms of what a Stryker would do in combat We did not want to have a *mano a mano* rotation where Strykers would be fighting other kinds of armored vehicles The focal point was always

delivering infantry into the fight So we had to build a COFOR, correlation of forces model, to make sure we had the right force ratios for what a Stryker would do in combat.¹⁸

This planning and development culminated in January 2014, when 3rd Brigade, 2nd Infantry Division deployed to the NTC for the first of this new type of training exercise. Both of the authors of this paper were present at the rotation—one as an assistant operations officer within 5-20 Infantry and the other as a liaison officer from the elements of the 75th Ranger Regiment participating in the exercise. The rotation was different from a typical mission rehearsal exercise conducted before a deployment from the start. The brigade deployed into a tactical assembly area with no pre-positioned buildings or logistical support, and then further broke down into battalion-level assembly areas from there. This was no small feat, considering the level of reliance Stryker formations had on fixed forward operating bases for logistical support in Iraq and Afghanistan. From these tactical assembly areas, the battalion launched separate attacks. 5-20 Infantry initially attacked through the "central corridor" of the NTC to seize several pieces of prominent terrain prior to conducting a seizure of Ujen, one of the larger mock cities. The battalion, generally operating unilaterally, suffered heavy casualties in the process. As Lanza observed, "Strykers in the attack, against a prepared position with enemy armor, [do not succeed] without the other enablers that he [Stryker commander] needs and the other support that he needs."19

This attack was followed by a defense, which better highlighted the strengths of the Stryker formation. The battalion was able to utilize dismounted javelins in restrictive terrain to great effect, although it did not have the capability to truly block an armored enemy force. Lanza again shared his thoughts: "When you take Strykers in the defense, and you dismount javelins, and you put them in [restricted] terrain, that was the biggest fight that Col. Bair [the Stryker BCT commander] won, was in the defense."²⁰ The defense was followed by a counterattack and a breach, both of which saw the Stryker battalions overmatched by enemy armor. As this was the first training exercise of this type at the NTC, significant shortcomings still existed in the design and execution of the Stryker-specific scenario.

Upon returning from the NTC, 3rd Brigade immediately began a new training cycle to correct



shortcomings identified from the January 2014 rotation. A premium was placed on training of the mounted crews and the Stryker platform. Col. David Foley, who took command of 3rd Brigade near the end of this rotation, recalls the training progression: "What we inherited was a more platform-based formation We're going to man, field, become very lethal in our two- to three-man crew and then enhance that with the infantry squad and that absolutely countered everything I saw in the JRTC and initial fielding."²¹ This could be seen in the company live-fire exercise conducted just prior to the NTC rotation, which included several mounted engagements for the Strykers in open terrain.

3rd Brigade again deployed to the NTC for Rotation 15-08.5 in July 2015. Two companies of Abrams tanks were attached to the brigade; 5-20 Infantry essentially became a Stryker-Abrams combined arms battalion. This configuration would prove to be less than ideal, as there was less synergy between the Stryker and the Abrams than between the Bradley Infantry Fighting Vehicle and the Abrams. Lt. Col. Edward Ballanco, the battalion commander of 5-20 Infantry, described one shortcoming: "The main difference between a Stryker and a Bradley is

U.S. Army Lt. Col. Edward J. Ballanco, Commander of the 5th Battalion, 20th Infantry Regiment, 1st Brigade Combat Team, 2nd Infantry Division, briefs his subordinate commanders 9 May 2016 during Decisive Action Rotation 16-06 at the National Training Center in Fort Irwin, California. (Photo by Sgt. Stephen J. Schmitz, U.S. Army)

that a Bradley is far more maneuverable than a Stryker.²²² On roads, Strykers and Abrams tanks could move at about the same speed, but maneuvering off-road in rolling desert terrain, the wheeled Strykers were far slower than the tracked tanks. This made it difficult to maintain a consistent tempo while maneuvering in the open, and it also deprived the tanks of the shock and speed with which they can normally attack. When the tanks did maneuver independently, they found themselves without infantry support to clear restricted terrain, and they were quickly destroyed by enemy antitank weapons.

Ultimately, the Stryker lacked the protection, firepower, and maneuverability to truly conduct a movement to contact across open terrain. Ballanco elaborated: "The Stryker ... didn't have as good a weapon, didn't have a mounted TOW, didn't have a 25 mm [cannon]."²³ As with the previous rotation, the brigade saw its greatest success in the defense, while suffering heavy casualties during movement-to-contact missions and deliberate attacks. A further shortcoming was seen during obstacle-breaching operations—the Stryker Engineer Support Vehicle was unable to proof a lane wide enough for a tank after conducting a breach through an obstacle. So, even with Abrams tanks to provide the assault force for a breach, the Stryker vehicles were unable to create a path for them through an obstacle. Foley and his battalion commanders returned from this rotation with several lessons learned, and a new focus as they trained for the next rotation, only eight months in the future.

in the field utilizing the full spectrum of communications systems. When the eight-month lull between the two NTC rotations was complete, 5-20 Infantry had conducted dozens of company-level force-on-force exercises and monthly war-gaming exercises.

NTC Rotation 16-06 was different from previous rotations in several respects. Maj. Gen. Thomas James, the commander of 7th Infantry Division and the senior trainer for Rotation 16-06, stated, "One of the things I took away from the rotation with [2nd Brigade] and with [3rd Brigade] is that because of the uniqueness of the Stryker formation, we have to pay even more attention to ... how we shape conditions to enable a

... because of the uniqueness of the Stryker formation, we have to pay even more attention to ... how we shape conditions to enable a Stryker formation to get a position of advantage.



A Shift in Training Focus

Following NTC Rotation 15-08.5, 3rd Brigade, now reflagged as 1st Brigade, 2nd Infantry Division, received orders to return to the NTC for another rotation earlier than expected, in the early summer of 2016. Thus, a compressed training plan was developed to prepare and certify the brigade. 5-20 Infantry modified its training plan in several key ways to incorporate the lessons learned from NTC Rotation 15-08.5. Ballanco described his method of employing the Stryker during these exercises: "We'd take advantage of the restrictive terrain all the time, try to use [the Stryker] as a support-by-fire platform wherever we could, but of course the main weapon being the javelin ... so we need to be experts with that weapon system."²⁴ To reinforce his style of maneuver, he devised several changes to the battalion training plan. First, the battalion conducted several additional company-level force-on-force mock battles, allowing commanders and leaders to experience fighting against a thinking opponent rather than the more constrained maneuver of a live-fire exercise against wooden targets. Second, integration of Stryker infantry carrier vehicles and dismounted infantry was heavily stressed both in field exercises and in tabletop war-gaming exercises held for the battalion's officers. Finally, a full battalion-level field exercise tested the ability of the battalion staff to control several companies maneuvering

Stryker formation to get to a position of advantage."25 The dialogue between James and the NTC resulted in a rotation that was much more fluid and realistic for a Stryker formation than previous rotations.

1st Brigade, 2nd Infantry Division, as 3rd Brigade was now renamed, began an early summer training rotation in May 2016. (The authors of this paper commanded Company A and Company C of 5-20 Infantry during this training.) 5-20 Infantry departed the bivouac area for the training area on 4 May and immediately established a desert laager, postured for immediate movement to an assault position. The next evening, the entire battalion departed its laager site for an attack on several pieces of restricted terrain. Company A led the battalion's attack, moving sixteen kilometers through a mobility corridor known as Whale Gap to a dismount point 2.5 kilometers from their final objective. This dismount point was selected deliberately to protect the vehicles from enemy antitank weapon systems. From that point, the entire company dismounted into the restrictive terrain and cleared enemy forces from a prominent ridgeline, utilizing company mortars for fire support. The company rested the following day and prepared for the next mission, and then moved another fourteen kilometers the following night to another objective.

This first battle period highlighted two strengths of the Stryker formation in combined arms maneuver. The Stryker has excellent operational mobility, and can move along roads to quickly deliver a large body of dismounted infantry to an objective while preserving combat power. The missions conducted by Company A would have taken considerably longer if conducted by a light infantry force without vehicular support. Second, the Stryker formation can much more quickly refit, conduct troop leading procedures, and prepare for the next mission than an armored force. Fewer refueling assets are required, indirect fire support is integral to the company team, and digital systems inside the vehicle allow mission orders to be quickly disseminated by higher headquarters. Additionally, the use of the "Arms Room" concept allowed Company A to effectively resupply additional ammunition and water, and replace AT-4 antitank weapons after consolidating on the objective.²⁶ Therefore, Company A could conduct an ambitious follow-on mission less than twenty-four hours after seizing their initial objective.

The next phase of the training exercise saw Company C tasked to conduct a bold flanking maneuver to the far eastern boundary of the NTC. This order was issued to Company C at 0600 hours, with a tentative start time of 1800 hours. The battalion was widely dispersed at this point, with Company C fifteen kilometers to the east of the rest of the battalion task force, twenty kilometers from the battalion operations center, and separated by several major terrain features. Company C used the twelve hours allocated to refuel, rearm, resolve several vehicle maintenance issues, and issue a mission order. Upon departing the assembly area, Company C moved across severely restricted terrain that had previously not been used as a route. This route brought Company C into an assault position northeast of a mock city, which the company attacked shortly after dusk. The route followed by Company C bypassed a massive obstacle belt south of the city and allowed the lead elements of the company to seize a foothold in the city before being detected by the enemy. By the time direct-fire contact was established with the enemy, two buildings in the city had been secured, and all of the company's Strykers were established in a supporting position north of the city where they could employ their heavy machine guns and grenade launchers to isolate the enemy. The city was seized entirely under cover of darkness, and the company

This operation highlighted the strengths of the Stryker formation in a slightly different way. During the attack on the city, Company C used its Strykers not only as a method of transportation but also as a support platform for infantry maneuver. The heavy machine guns mounted on the Strykers with thermal cameras served both to spot and eliminate enemy forces as they moved in and out of the city. As with Company A's operation, the agility of the Stryker was highlighted as a tremendous asset. Within two hours of seizing a city and establishing a hasty defense, the entire company packed up and repositioned to a follow-on blocking position with their antitank weapon systems to help stop an enemy armored force. Finally, the mobility of the Stryker platform and the light logistical support requirements allowed the battalion to operate across a wide geographical area and enabled C Company to conduct its flanking movement to the east across restrictive terrain.

The bold movement also illustrated the impressive digital systems employed by Stryker formations. At the battalion level, the commander was capable of providing effective mission command for three Stryker companies conducting missions simultaneously across twenty kilometers, from Company C at the city to Companies A and B on hilltops 760 and 780, respectively.

The final task for 5-20 Infantry in Rotation 16-06 saw the entire task force conduct a seventy-kilometer movement across the entire breadth of the training area at the NTC to attack the enemy's rear area. During this movement, the battalion seized two villages, conducted breaching operations on five separate mine obstacles, and forced the enemy to reallocate a significant portion of its forces to rear-area security instead of its main defensive positions. Once again, the operational mobility of the Stryker force allowed it to move long distances and put a large infantry force into a position of advantage against the enemy.

Strengths and Weaknesses of the Stryker Formation

Over the course of three decisive action rotations at the NTC for 3rd Brigade (now 1st Brigade), several trends are clear. The first is that the Stryker formation cannot be used in the same way as a combined arms battalion of Bradley infantry fighting vehicles and Abrams tanks. Alone, for example, the Stryker cannot engage an enemy mechanized force in open terrain. As Coffman put it, "There are limitations with the Stryker, mainly on firepower and its standoff with our enemy, as well as protection to those individuals riding in the back, as it only defeats smaller caliber weapons."²⁷ Its weapon systems are overmatched in range and destructive power, and its armor does not protect it from an enemy infantry fighting vehicle such as a BMP with a 30 mm cannon. This is not to say that a Stryker cannot integrate with tanks or a heavy formation in a different way—it just cannot take the exact role used by a Bradley. Maneuvers across open terrain against mechanized enemy forces are not situations in which Strykers excel, whether augmented with tanks or not.

However, Strykers can be effective and lethal when used in ways that emphasize their natural strengths. NTC Rotation 16-06 offered several examples of these types of missions. Stryker units excel when the vehicles themselves are not needlessly exposed to enemy antitank fire, the infantry are brought to fight in restricted terrain where they can negate the advantage of enemy mechanized forces, and a high tempo is maintained. In every instance cited from that training exercise, care was taken to dismount infantry before the Stryker vehicles were in range of enemy antitank weapon systems. This prevented the vehicle, which holds a squad and a heavy machine gun, from being destroyed at long range. Once the infantry is in restricted terrain, Strykers can be moved forward to help suppress enemy positions with their heavy machine guns. This symbiotic relationship between the dismounted infantry and the Stryker characterizes all the success seen in training and in the use of the Stryker in offensive operations in Iraq and Afghanistan.

The high tempo that a Stryker unit can maintain is also an advantage. Less refit is needed between operations compared to a heavy unit, and the infantry can rapidly be moved after a mission is received, as compared to light infantry. This high tempo allows Strykers to quickly exploit enemy weaknesses as they are encountered.

Finally, to see how the Stryker can fit into the Army at the strategic level, one need only look at its inception and the reason the system was created. The Stryker can effectively move a large body of infantry across a long distance, especially on road networks that would be damaged by armored forces. Strykers are also much more rapidly deployable than heavy brigades, allowing them to quickly respond to a crisis for which light infantry would be ill-suited. Had Strykers existed in Desert Shield in 1990, they would have been able to rapidly reposition around Saudi Arabia as needed. A light infantry unit simply does not have the transportation assets to do the same thing. As Coffman observed, "The biggest benefit that I see is the intratheater mobility; so quickly moving inside of the theater to reposition [units] of infantryman at the decisive point as required."28 As seen in Iraq and at the NTC, a Stryker unit can quickly pack up and move across a wide geographical area with little to no logistical support. This enables it to bring infantry where they are needed or, as Coffman put it, "deliver fresh legs to the objective."29 This is in contrast to a light infantry unit that requires significant external logistical support to move. And, even when augmented with cargo trucks, a light infantry unit still is not as capable as a Stryker unit. The Stryker provides protection against small arms fire and a robust communications suite, allowing soldiers to arrive at their objective safe and situationally aware. Alternatively, a heavy brigade can bring substantially more combat power to an objective as compared to a Stryker brigade, but this comes with the cost of a significantly larger maintenance and sustainment footprint. The fuel requirements of a heavy brigade dwarf those of a Stryker brigade. This can become even more pronounced if a unit is rapidly deployed, in which case a heavy brigade will be hamstrung while waiting on sustainment assets. A Stryker unit can far more quickly be repositioned both inter- and intratheater. Thus, the Stryker, when utilized properly, can fill a unique niche that places it between the traditional roles of the light infantry and the heavy armored force.

Conclusion

Going forward, it will be useful to see how Strykers operate as part of a true combined force. The Army has yet to conduct a full-scale division-sized training exercise pairing an Armored BCT with a Stryker BCT to test how both organizations can best use their strengths. Lanza noted that the idea has been surfaced at the highest levels: "One of the things we were discussing is: should we have a hybrid rotation?"³⁰ An exercise of this type would allow the Army to test theories about interoperability between the different types of brigades that have yet to be seen outside of war games and command post exercises. It might also finally resolve the role of the Stryker in combined arms maneuver, which has been, to this point, an open question.

There have been several debates in the military of late about whether the Stryker should be augmented with 30 mm cannon to be more like a Bradley fighting vehicle, or even if it should be scrapped entirely. Ultimately, though, if we were to deploy Stryker formations tomorrow for a major land conflict, it would be as they are currently equipped, and not as we might desire. The Stryker is a major part of the Army's infantry force, and as such, it is imperative that we as an Army know how to utilize it if we are called upon to do so.

This article has investigated the best ways in which to utilize the Stryker at the operational and tactical levels by looking at its original purpose and the way in which it has been utilized in recent training exercises. It is our conclusion that the Stryker can be an effective part of a fight against a near-peer adversary, but only if it is used in a way that plays to its strengths and avoids its weaknesses. The lessons learned from training exercises over the past three years offer a blueprint for updated Stryker doctrine to solidify the role of the Stryker on the mechanized battlefield.

Notes

1. Douglas A. Macgregor, *Transformation under Fire: Revolutionizing how America Fights* (Westport, CT: Praeger, 2003), 18–19.

2. Mark J. Reardon and Jeffery Charlston, *From Transformation to Combat: The First Stryker Brigade at War* (Washington, DC: U.S. Army Center of Military History, 2007), 3.

3. Alan Vick, The Stryker Brigade Combat Team: Rethinking Strategic Responsiveness and Assessing Deployment Options (Santa Monica, CA: RAND Corporation, 2003), 7.

4. H. Charles Hodges Jr. (retired U.S. Army colonel, former battalion operations officer, 3rd Stryker Brigade Combat Team [BCT]), interview by authors, 11 October 2016.

- Reardon and Charlston, From Transformation to Combat, 15.
 Hodges, interview.
- 7. Reardon and Charlston, From Transformation to Combat, 69.
- 8. Hodges, interview.

9. Theodore W. Kleisner (U.S. Army lieutenant colonel, former company commander, 3rd Stryker BCT), interview by authors, 20 July 2016.

10. Kimberly Kagan, *The Surge: A Military History* (New York: Encounter Books, 2009), 81–97. The "Surge" refers to the shift in strategy in Iraq in early 2007 that resulted in twenty thousand additional U.S. military personnel being deployed to the country along with a renewed focus on counterinsurgency operations. Kagan's book is the source for information on the movement of 5-20 Infantry during their 2007 deployment.

11. The number of Stryker brigade combat teams is based on the Quadrennial Defense Review Report (Washington, DC: Department of Defense, February 2010), accessed 30 August 2017, <u>https://www.defense.gov/Portals/1/features/defenseReviews/QDR/</u> QDR_as_of_29JAN10_1600.pdf.

12. Richard R. Coffman (U.S. Army colonel, commander, Operations Group, National Training Center), interview by authors, 26 August 2016.

13. lbid.

14. lbid.

15. Stephen R. Lanza (U.S. Army lieutenant general, former commander, 7th Infantry Division), interview by authors, 16 November 2016.

16. Ibid. ARFORGEN—Army Force Generation—was the method used by the U.S. Army to generate trained and ready forces for deployment on a sustainable, rotational basis.

- 17. Lanza, interview.
- 18. Ibid.
- 19. lbid.
- 20. Ibid.

21. David C. Foley (U.S. Army colonel, commander, 1st Stryker BCT), interview by authors, 16 December 2016.

22. Edward J. Ballanco (U.S. Army lieutenant colonel, commander, 5th Battalion, 20th Infantry Regiment, 1st Stryker BCT), interview by authors, 21 October 2016.

- 23. Ibid.
- 24. lbid.

25. Thomas S. James Jr. (U.S. Army major general, commander, 7th Infantry Division), interview by authors, 2 December 2016.

26. The "Arms Room" concept is a key principle that guides employment of Stryker formations. Essentially, it allows a commander to tailor a soldier's individual load to include only equipment needed for the current operation while storing the remainder of their supplies in the Stryker vehicle. In this manner, commanders can keep their soldiers' loads light while maintaining the ability to rapidly reequip and resupply their units for a follow-on mission as needed.

27. Coffman, interview.

- 29. Ibid.
- 30. Lanza, interview.

^{28.} Ibid.