

FROM TRANSFORMATION TO COMBAT



The First Stryker Brigade at War

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by

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Cover: Soldiers of Company C, 1st Battalion, 23d Infantry, 2d Infantry Division, dismount a Stryker infantry carrier to conduct a patrol in Mosul, Iraq.

Foreword

Between November 2003 and October 2004, after four years of planning and preparation, the Army's first Stryker-equipped force received its baptism by combat on the plains of Iraq. The deployment of the 2d Infantry Division's 3d Brigade challenged more than just the Army's ability to field a new type of combat unit or a new piece of equipment. It sought to showcase and validate new information-age technologies, doctrines, and organizations that could serve as models for the future transformation of the service's fighting forces. Testing the Army's very ability to make key cultural changes in the way that it trained, led, fought, and supplied its forces in the field, the new brigade would have to prove more agile, more flexible, and more deadly than its predecessors.

This study, prepared at the U.S. Army Center of Military History by Lt. Col. Mark J. Reardon and Dr. Jeffery A. Charlston, explores the origin, development, and initial combat experience of this unique unit, the first installment of an "Interim Force" that would pave the way toward the Army of the future. From the training grounds of Fort Lewis, Washington, to the battlegrounds of Mosul and Tall Afar, Iraq, the odyssey of the "3-2" tested the very premise of the Army's initial Transformation strategy. This preliminary account provides a firsthand field assessment of that ambitious effort and should encourage further thought about our continuing efforts to prepare the Army for its role in an increasingly turbulent world.

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Contents

A Need for Change	1
Establishing a Process	5
<i>Step One: Reorganize, Train, and Equip</i>	5
<i>Step Two: Fielding Stryker</i>	11
<i>Step Three: Operational Readiness</i>	14
<i>Step Four: Taking the Field</i>	16
The Test of Combat: November 2003–November 2004	19
<i>Task Force OLYMPIA</i>	26
<i>Initial Operations</i>	30
<i>Task Force ARROW: An Najaf</i>	35
<i>Operation ROAD WARRIOR: Baghdad</i>	44
<i>Tall Afar, Iraq</i>	48
<i>Mosul, Iraq</i>	62
<i>Relief in Place</i>	62
Analysis	67
Bibliographical Note	73

Maps

1. Operation IVY BLIZZARD, 17–21 December 2004	21
2. Stryker Brigade, Area of Operations, January 2005–October 2005	28
3. Task Force ARROW, April–June 2004	36
4. Kiowa Down, 4 September 2004	54
5. Operation BLACK TYPHOON, 9–10 September 2004	59
6. Operation IRAQI FREEDOM: 5th Battalion, 20th Infantry, November 2003–November 2004	65

Chart

Stryker Brigade Combat Team	4
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Illustrations

Stryker with Mobile Gun System variant	7
General Eric K. Shinseki with soldiers	8
Stryker vehicles in stateside training exercise	9
Soldiers training with the Stryker at the National Training Center	12
Platoon on patrol, outskirts of Samarra, Iraq	23
Sniper from 23d Infantry in Mosul	24
Kiowa Warrior helicopter	25
Mosul at night	27
Brig. Gen. Carter F. Ham and a senior Iraqi Army officer	30
American and Iraqi soldiers on a night mission in Mosul	31
American soldier training an Iraqi soldier	33
American soldiers maintaining security for Iraqi National Guard mission	34
Stryker platoon on local security duty	40
Task Force ARROW officers preparing for logistics convoy	45
Strykers and cargo trucks ready for convoy	47
Lt. Col. Karl D. Reed and an Iraqi police chief	51
Crashed Kiowa Warrior after recovery	56
Soldier firing at insurgents from his Stryker vehicle	61
Stryker on the move after searching for insurgents	63
Soldiers on local security duty west of Mosul	64

Illustrations courtesy of the following: 27, 30, 63, Department of Defense; 40, 45, 47, 56, 5th Battalion, 20th Infantry. All others from U.S. Army files.

A Need for Change

During General Gordon R. Sullivan's tour as Chief of Staff of the Army, between June 1991 and June 1995, as a consequence of the dissolution of the Soviet Union, the U.S. Army began to develop a new strategic vision. By acquiring advanced information technologies such as the tactical internet, it sought to produce an agile, sustainable force capable of meeting any challenge that emerged in an as-yet-undefined future. In this way, by adopting the latest digital technology, the armored and mechanized divisions of the existing force would gain a significantly improved awareness of whatever circumstances they encountered in the field. The concept, Force XXI, looked forward to the next century and to the Army's role in it.

Force XXI employed an innovative approach to warfighting that sought to improve a combat unit's battlefield awareness by networking battlefield information systems. At the command level, the process would accelerate decision making by providing officers at all echelons with continually updated information on the positions and activities of their forces. In the field, by improving combat commanders' knowledge of the enemy's location and movement, it would allow friendly forces to deploy with a minimum of guesswork to points where they could have the greatest impact.

The key developmental tool for Force XXI, a division-size Experimental Force, began to take shape in 1993. The U.S. Army Training and Doctrine Command (TRADOC) planned to convert an existing division into a pilot organization to test future force designs. In December 1994 the Army designated the 2d Armored Division based at Fort Hood, Texas, as the Experimental Force. Reflagged as the 4th Infantry Division in 1996, the new interim division, totaling 15,820 people, was slightly smaller than its predecessor. Other changes to the unit included an increased number of fire-support systems, expanded reconnaissance and intelligence capabilities, additional infantry, and greater consolidation of logistics support.

Digitization, a term that originated in the Army of the 1990s with the acquisition and testing of computerized communications systems by the Experimental Force, was the main idea behind Force XXI. Those tests, culminating in the Advanced Warfighting Experiment in 1997 that pitted a digitized task force against a conventional foe, affirmed the concept of a "networked battlefield" in the minds of senior Army leaders. The nearly instantaneous sharing of computerized information on events in

progress among command posts, logistics elements, and the managers of key weapon systems had the potential to give the networked force a great advantage over its opponent.

At first, however, available technologies were so fragile and lagged so far behind General Sullivan's initiatives that a great number of integration and durability issues arose. In April 1994, for example, problems with untested gear led to the lackluster debut of a digitally equipped brigade during a Force XXI Advanced Warfighting Experiment (Operation DESERT HAMMER VI) at the National Training Center in Fort Irwin, California. Followup analyses disclosed that the units involved had received so much new computerized equipment that officers and enlisted men had lacked sufficient time to train with it. Neither had commanders yet developed the tactics necessary to fully exploit the capabilities the devices offered. While the results of the effort may have fallen short of expectations, however, the exercise proved to be a valuable learning experience by underscoring technological, organizational, doctrinal, and training issues that needed to be solved as the Transformation moved ahead.

When General Dennis J. Reimer succeeded Sullivan as Chief of Staff on 20 June 1995, he accepted the Force XXI concept as a basis for further test and evaluation. By February 1996 preliminary explorations led him to create the Army After Next Project. Where Sullivan had sought to apply information technology to existing systems and practices, Reimer would look to the future and focus on developing new capabilities and fielding a new generation of weapon systems by the year 2025. To that end, after reconfiguring the experimental division into a standard infantry organization, the Army formed a "Strike Force" based on the 2d Armored Cavalry Regiment at Fort Polk, Louisiana.

The Strike Force was to be the Army's newest step toward creating a rapidly deployable organization able to act decisively and successfully under any conceivable set of circumstances from peacekeeping to total war. General Reimer described it as a cost-effective means of change that had three objectives: to develop and field an adaptable, rapidly deployable force to meet the needs of combatant commanders; to act as a lab for leader development; and to be a prototype for Army After Next organizations. In the field, early entry and stability operations would be the unit's primary functions, but its members would be trained and equipped both to conduct conventional offensive and defensive warfare and to coordinate support efforts such as humanitarian assistance. Intended to deploy from the continental United States to anywhere in the world with enough lethality to seize the battlefield initiative upon arrival,

the unit would field a force of 3,000–5,000 troops tailored to achieve whatever goals it was set to accomplish.

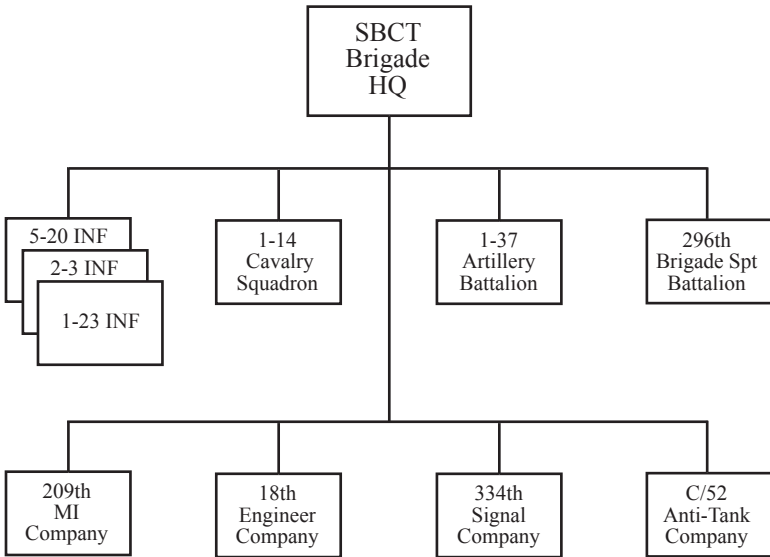
General Reimer's successor as Chief of Staff of the Army on 22 June 1999, General Eric K. Shinseki, carried these initiatives a step further. Just one day after he took charge, he released a statement with Secretary of the Army Louis E. Caldera. Calling for efforts to improve the Army's warfighting abilities that went well beyond the scope of existing concepts, he emphasized his commitment to hastening and broadening the service's modernization. He would do this, he said, by adopting initiatives to improve not only the Army's future combat forces, but also their deployment base in the United States, their logistical and administrative structures, and their ability to function effectively with the nation's other military services in joint theaters of operation.

Shinseki went into detail four months later. On 12 October, speaking at the annual meeting of the Association of the United States Army, he announced that he intended to improve the Army's strategic responsiveness by enabling higher-level headquarters to function as joint headquarters and by raising the manning levels of major combat units to their full authorized strength. He planned to enhance the Army's future ability to dominate potential threats by improving communications and intelligence and by introducing fully interchangeable equipment and procedures throughout the force. Since logistics generated roughly 90 percent of the Army's airlift requirements, he wanted to introduce an approach to equipment design that figured lift demands into the process. One particularly attractive way to do this involved replacing existing armored fighting vehicles with smaller, lighter counterparts. Shinseki also intended to reduce the size of the support forces that accompanied deploying units by improving the ability of permanent installations to sustain forces in the field.

After addressing the challenges involved in the rapid deployment of combat forces in the post–Cold War environment, the general went on to announce that he intended to transform all the Army's components into a standard design. This would allow the service to field a combat-ready brigade anywhere in the world in 96 hours, a division in 120 hours, and 5 divisions in 30 days. He proposed immediate creation of a prototype organization to test the concept and to pave the way for wide-ranging changes in Army doctrine, organizational design, and leader development. By purchasing already available equipment, he said, the Army would stand up a prototype unit at Fort Lewis, Washington, by the end of fiscal year 2000.

The Army selected the 3d Brigade of the 2d Infantry Division to serve as the vanguard of Shinseki's effort to make the Army more lethal but also

Stryker Brigade Combat Team



more responsive, deployable, and sustainable than it had ever been. The program had as its immediate goal the production of a medium-weight force to bridge the gap between easily deployable light units and their heavier counterparts that required significantly more time and resources to reposition. Following an initial period of testing and validation at Fort Lewis, the service was then to field additional brigades as an Interim Force. The lessons these units learned in their encounters with emerging technologies would enable the service to field a deployable and capable force designed to meet and overcome future strategic challenges. The interim force, however, was intended to supplement rather than replace existing light and heavy units. Neither would it serve as the Army's model for future combat organizations without first undergoing extensive testing, evaluation, and modification. The unit would be a prototype, the first in a series of steps toward a strategically responsive force capable of dominating a battlefield across a full range of military operations.

Establishing a Process

Although employing already available items, the effort to create a new type of major combat force in less than twelve months was ambitious. Since the brigade selected as a prototype was mechanized, it would have to give up its current fleet of M1 Abrams and M2 Bradley Fighting Vehicles and the associated doctrine, organization, and “mounted combat” mindset associated with them. Even so, force designers and doctrine developers had a head start. They could draw upon lessons they had learned from their work with the Experimental and Strike Forces. By 2 November they had a draft document circulating within the Army’s leadership that discussed how the operational concept, organizational design, and rationale for the new brigade fit within the Army’s Transformation strategy.

As the lead agent for the Army’s Transformation, TRADOC coordinated the effort to create the brigade just as it had those for Force XXI and Army After Next. On 9 November 1999, General Shinseki appointed Maj. Gen. James M. Dubik as TRADOC’s Deputy Commanding General for Transformation. Dubik and his staff had a draft implementation document completed little more than a month later. Under that directive TRADOC created a Brigade Coordination Cell at Fort Lewis to oversee the effort to establish the new unit, which would be composed of a reorganized 3d Brigade, 2d Infantry Division. The cell was to provide the command with the firsthand perspective it needed to develop doctrine, to craft training methodologies, to create leadership development programs, and to sort out all the administrative and organizational details necessary to run the new unit. The cell would also serve a useful function as a middle manager, neatly bridging the expanse between TRADOC concept developers and branch school force developers concerned with the related nuts and bolts.

Step One: Reorganize, Train, and Equip

In December 1999 Army crews began evaluating thirty-five U.S. and foreign medium-weight armored vehicles at Fort Knox, Kentucky. As part of that effort, personnel from Fort Lewis augmented by soldiers from Fort Benning, Georgia, and Fort Leonard Wood, Missouri, participated in a month-long performance demonstration to identify what features the new brigade’s family of armored vehicles would require. Few had any doubt that the unit could reduce the variety of spare parts

and the number of maintenance personnel it needed—its “footprint” in the field—if its vehicles made maximum use of a common chassis adaptable to multiple purposes. The test would also determine which existing vehicle technologies best supported the medium-weight organization.

As the evaluations proceeded, several of the Army’s leading generals met at a conference on 10 and 11 January 2000 to discuss operational and organizational concepts for the brigade. Those officers approved an earlier idea that every major piece of equipment belonging to the brigade should be transportable by C-130 aircraft. They also agreed that the Army should continue to use available vehicles for training and doctrine experiments until new ones were on hand. These basic decisions set the path for the new Brigade Combat Team to follow during its transformation from an Abrams/Bradley-equipped formation into the Army’s first medium-weight brigade.

By the end of January the evaluators had succeeded in establishing the operational requirements for a family of Interim Armored Vehicles based on a single chassis. In addition to serving as a basic infantry transporter, the new platform could be adapted to perform other functions. Although each variant shared many mechanical features, the most important common characteristic was an ability to leverage the data collected by joint and Army intelligence-gathering systems to maintain a high level of battlefield awareness. This would partially offset the vehicles’ vulnerability to enemy antiarmor weapons, compared to Bradley or M113A3 full-tracked armored personnel carriers.

By 9 March TRADOC had established a preliminary schedule for the brigade’s training and a requirement for the delivery in April of draft doctrinal and instructional aids. Until those materials were present, homegrown handbooks compiled by the Brigade Coordination Cell with input from branch schools would have to suffice.

The decision to employ draft documents was timely, for the reorganization of the 3d Brigade, 2d Infantry Division, began in earnest on 18 May and threatened to overtake TRADOC’s preparatory staff work. Originally, the unit had consisted of the 1st Battalion, 23d Infantry; the 1st Battalion, 32d Armor; the 1st Battalion, 33d Armor; the 1st Battalion, 37th Field Artillery; the 168th Engineer Company; the 296th Forward Support Battalion; and Battery C, 5th Battalion, 5th Air Defense Artillery. In the reorganization, it lost both of its tank battalions, its air defense battery, and its engineer company. The bulk of its combat power then rested on the 1st Battalion, 23d Infantry, and two new battalions: the 2d Battalion, 3d Infantry, and the 5th Battalion,



The Mobile Gun System variant seen here was not fielded to the first Stryker Brigade prior to its deployment to Iraq.

20th Infantry. The 1st Battalion, 37th Field Artillery, also remained. Although that unit still had the mission of providing the brigade with fire support, it was expected to fill that role with three batteries of M198 155-mm. towed howitzers rather than the M109 self-propelled tracked howitzers it had earlier employed.

An organic Reconnaissance, Surveillance, and Target Acquisition unit, the 1st Squadron, 14th Cavalry, was added to enhance the brigade's ability to locate, acquire, and engage targets over a wide area of operations. This principal mission of this unit would be to build and maintain situational awareness for the entire brigade. In addition to its normal complement of three reconnaissance troops, the squadron included a military intelligence company known as the surveillance troop that possessed an Unmanned Aerial Vehicle platoon; a Nuclear, Biological, and Chemical reconnaissance platoon; and an array of sensor systems. The new brigade's other subordinate elements included the redesignated 296th Brigade Support Battalion, the 334th Signal Company, the 18th Engineer Company, and the 209th Military Intelligence Company. Company C of the 52d Infantry, which served as the unit's antitank company, completed the brigade's organizational roster.



General Shinseki speaks to soldiers from Company C, 5th Battalion, 20th Infantry, inside a Canadian LAV III, Fort Lewis, March 2002.

The reorganization also made significant changes within each infantry unit. While Bradley and medium-weight armored vehicle battalions both consisted of a headquarters company and 3 rifle companies, their internal composition differed significantly. A standard mechanized infantry company consisted of a headquarters employing 2 Bradley Fighting Vehicles and 3 rifle platoons employing 4 Bradleys apiece. Each Bradley platoon numbered 39 soldiers, 12 of whom manned vehicles, giving mechanized companies a total of just 81 dismounts. In contrast, a medium-weight company was organized with a headquarters platoon of 2 vehicles; a Tube-launched, Optically tracked, Wire command (TOW) missile platoon consisting of 3 modified Infantry Combat Vehicles; a mortar section with 2 vehicles; and 3 rifle platoons equipped with 4 Infantry Combat Vehicles apiece. Each rifle platoon numbered 44 soldiers, 8 of whom manned the vehicles. Each company of medium-weight armored vehicles possessed 6 more dismounted riflemen (108) than a light infantry company (102) and 27 more than a Bradley company.

Individual and small-unit training, some of it employing a handful of substitute vehicles available at Fort Lewis, continued through the summer and fall of 2000. By the first anniversary of General Shinseki's October 1999 speech, the Army had a prototype medium-weight brigade assembled. The unit, however, still lacked the armored vehicles and



Stryker infantry carriers speed out of the woods toward firing positions to begin a capabilities demonstration.

many of the information technology components that were supposed to be its hallmarks.

On 16 November the service rejected an updated version of the full-tracked M113A3 and announced that it had selected a wheeled, third-generation Light Armored Vehicle known as the LAV III that the Canadian armed forces were in the process of acquiring. The contract went to a partnership between General Motors and General Dynamics Land Systems. The new combat vehicle had eight wheels and weighed approximately 19 tons. Armored against 14.5-mm. ammunition all around and 152-mm. artillery airbursts, it could reach speeds in excess of 60 miles per hour. The early requirement for a 155-mm. self-propelled howitzer variant was eventually eliminated, reducing the family to the Mobile Gun System and the Infantry Carrier Vehicle. The infantry vehicle could be configured in eight different ways to meet the brigade's various other tactical requirements. The Mortar Carrier version was equipped with a 120-mm. mortar that partially offset the cancelled howitzer carrier. The other versions were a Reconnaissance Vehicle; a Commander's Vehicle; a Fire Support Vehicle; an Engineer Support Vehicle; a Medical Evacuation Vehicle; an Anti-Tank Guided Missile Vehicle; and a Nuclear, Biological, and Chemical Reconnaissance Vehicle. In order to keep the

need for spare parts to a minimum within the brigade, the entire family used an engine common to fourteen different cargo and support vehicles that had entered Army service in the early 1990s.

The Mobile Gun variant still faced major engineering challenges. Its proposed M68A1 105-mm. cannon, a high-velocity weapon also mounted on the initial version of the M1 Abrams main battle tank, sought to house a complex autoloader and stabilization system in an unmanned low-profile turret. While it helped to dramatically reduce the overall size and weight of the vehicle, a configuration of this sort was unique to the Stryker. As a result, a number of technical problems soon emerged. While engineers pursued solutions, the brigade temporarily substituted an antitank version firing the TOW-2b antiarmor missile from an elevated launcher. The Mobile Gun System would remain the most complex member of the medium-weight armored vehicle family and required a much longer period of testing, evaluation, and modification than other variants.

During this entire process, the soldiers of the brigade continued to train using Canadian LAV IIIs and substitute vehicles. Their efforts culminated in mid-April 2001, when they conducted a combined field training and deployment exercise at Fort Lewis that tested the strategic mobility of the brigade. First, several C-5 transport aircraft uploaded the unit's vehicles at nearby McChord Air Force Base in Tacoma, Washington, and flew them 120 miles eastward to a satellite runway at Moses Lake. Then, lighter C-17 aircraft moved them directly from Moses Lake to the Yakima Regional Airport. On 4 May, after two weeks of maneuvers at the Army's Yakima Training Center, the unit and its vehicles reversed the flow and returned by air to McChord. Overall, the exercise demonstrated the brigade's ability to deploy and maneuver using vehicles that approximated those the Army had selected as its permanent equipment.

By rotating the limited number of Canadian LAV IIIs between the various battalions, the brigade conducted platoon and company-level live-fire exercises throughout the year. These maneuvers—including a full-scale, combined-arms, live-fire exercise that the 1st Battalion, 23d Infantry, conducted in the spring of 2001—furthered the development of individual and small-unit skills. By then, the brigade possessed much of its new digital command and control equipment, allowing its soldiers to gain familiarity with the systems. They also had the benefit that autumn of a two-cycle, brigade-wide Battle Command Training Program that pitted unit commanders and their staffs against human opponents in a computerized war game. The brigade's officers and enlisted soldiers

thus advanced steadily in their capabilities while awaiting the arrival of their new vehicles.

Step Two: Fielding Stryker

On 27 February 2002, the Army officially named the medium-weight armored vehicle the Stryker after two unrelated infantrymen with the same last name who had both received Medals of Honor. On 24 March 1945, Pvt. Stuart S. Stryker had led a beleaguered platoon of Company E, 513th Parachute Infantry, 17th Airborne Division, to victory over German troops at the cost of his own life. On 7 November 1967, while serving in Vietnam with Company C, 1st Battalion, 26th Infantry, 1st Infantry Division, Sp4c. Robert F. Stryker had given his life to save those of four wounded comrades.

The first Strykers arrived at Fort Lewis on 31 May, when Company A, 5th Battalion, 20th Infantry, took delivery of fourteen. The battalion's officers began receiving their orientation to the vehicle that same day. By 3 June the battalion had started training on the Strykers, and on 8 June Company A moved to the Yakima Training Center for advanced driver training and practice with the Stryker's primary armament. Since its turret-mounted .50-caliber machine gun had yet to be approved for live firing, the company relied on simulated fire with lasers. Nine additional Strykers arrived at Fort Lewis during the first week in June. After that, deliveries continued as fast as the vehicle could be produced. The Strykers were not the only major pieces of new equipment that appeared. Shadow Unmanned Aerial Vehicles replaced the Hunters originally issued to the 1st Squadron, 14th Cavalry.

Since the Army was engaged in Afghanistan and Transformation was emerging as the defining component of Secretary of Defense Donald H. Rumsfeld's policies, the new vehicles and the brigade fielding them drew considerable attention, both positive and negative, from the defense community, the media, and the general public. A renewed debate occurred, for example, over the effectiveness of tracked versus wheeled combat vehicles. Commentators compared the Stryker's performance with that of the M113A3. Critics claimed that the wheeled infantry carrier version was too lightly armed when compared to similar vehicles fielded by other armies and that it was less capable than either the M113A3 or the Bradley because it lacked an amphibious capability.

The Army spent considerable time and effort answering negative reports, pointing out that heavier weaponry such as the 25-mm. turret



Soldiers with the 5th Battalion, 20th Infantry, rush into their Stryker infantry carrier vehicle so they can move into attack position in the “box” at the National Training Center.

mounted on the Bradley would prevent the Stryker from being loaded aboard a C-130 aircraft. Furthermore, wheeled combat vehicles consumed considerably less fuel than their tracked counterparts, reducing logistical demands and the number of fuel convoys needed to support a force. Wheeled vehicles could also travel long distances on their own, while tracked vehicles suffered considerable wear unless carried by Heavy Equipment Transport System (HETS) vehicles. That said, the service nonetheless had to admit that some criticisms of the design were valid and that technicians would be installing necessary modifications as testing and evaluation progressed.

The arrival of the Strykers inaugurated a series of challenging training tests oriented toward making the brigade’s leaders and soldiers intimately familiar with the vehicle. The effort to certify the unit began in earnest during June 2002. Looking forward to the coming year, the unit’s commanders scheduled an I Corps Warfighter exercise; advanced marksmanship training; an externally evaluated home-station maneuver exercise testing all levels of command from squad through battalion; two combat training exercises at the National Training Center; and a third exercise at the Joint Readiness Training Center at Fort Polk. As more equipment and vehicles arrived, the brigade was also able to test and validate command and control doctrine developed by TRADOC

and to establish protocols for refueling and the employment of forward logistics elements.

On 1 July the brigade and its new vehicle became permanently linked when the Army renamed the Interim Brigade Combat Team the Stryker Brigade Combat Team. Using the acronym SBCT, the troops and their officers would occasionally refer to interim brigades by their order of founding rather than their full military designation. In this shorthand, the 3d Brigade, 2d Infantry Division, became SBCT 1.

A congressionally mandated, Joint Forces Command–sponsored MILLENNIUM CHALLENGE 2002 exercise at Fort Irwin provided the first major opportunity for the Stryker Brigade to demonstrate its new vehicle and the operational concepts it employed to the greater military community and the general public. In doing so, the unit deployed a complete company and various support attachments to accomplish brigade-level tasks involving both simulated and actual units.

By any measure the event was a milestone in both the Stryker program and the brigade's progress toward operational readiness. As a joint warfighting experiment, it allowed the unit to refine emerging concepts, doctrine, tactics, techniques, and procedures in a joint operational environment. It also gave the brigade's troops an opportunity to apply experience they had gained during a late June rehearsal exercise. Finally, in perhaps its most challenging aspect, it also provided the brigade with a high-profile opportunity to offload Strykers from aircraft and to configure them for combat under simulated wartime conditions.

The offloading occurred on 31 July 2002, when the 5th Battalion, 20th Infantry, successfully delivered four Strykers from Company A to Fort Irwin's Bicycle Lake airfield. Each vehicle emerged from its C-130 transport aircraft in roughly three minutes. Raising the Strykers' remote weapons stations into position and remounting their smoke-grenade launchers, antennas, and other equipment added eleven to seventeen minutes. The battalion deployed additional Strykers to Fort Irwin on subsequent C-17 flights. When the exercise ended, the unit returned fourteen of the vehicles from Port Hueneme, California, to the Port of Tacoma aboard HSV-XI *Joint Venture*, an experimental High Speed Sealift Catamaran.

Although MILLENNIUM CHALLENGE 2002 demonstrated the brigade's capabilities on only a small scale and minor problems with equipment occurred, the units that deployed did well in the exercise. After the first simulated mission, the soldiers of the National Training Center's permanent Opposing Force, the 11th Armored Cavalry, noted that the Stryker went places at greater speeds and with less noise and more agility

than any vehicle they had previously encountered. The vehicle's digital communications suite also permitted it to call quickly for a lethal array of supporting fire. As a result, the 11th Cavalry began preparing for the full brigade's upcoming certification exercise at Fort Irwin long before it would have done so for a Bradley- or M1-equipped unit.

In October 2002, with public and legislative attention still focused on its newest combat vehicle, the Army took another important step toward Transformation. The events following the attacks on 9/11 and the U.S. invasion of Afghanistan had imparted considerable momentum to the Stryker program. Many senior Army leaders viewed the new brigade as a critical component of the Global War on Terror. The Vice Chief of Staff of the Army, General John M. Keane, directed the service's Program Executive Office—Soldier to develop a Rapid Fielding Initiative that would capitalize on lessons learned in Afghanistan. The effort was to focus on acquiring advanced technologies and commercially available products as quickly as possible in order to meet soldiers' needs without the extended delays imposed by traditional acquisition processes. Much of the new equipment involved—including, for example, the Barrett .50-caliber sniper rifle, improved night optical systems, reticle dot sights and lasers for standard weapons, and four-wheeled all-terrain vehicles—would be earmarked for the Stryker Brigade.

Step Three: Operational Readiness

The deployment to Fort Irwin demonstrated that the soldiers of 5th Battalion, 20th Infantry, were mastering both the new technologies and the operational methods under development for Stryker units. By December 2002 the brigade's other maneuver units—the 2d Battalion, 3d Infantry, and the 1st Battalion, 23d Infantry—had successfully completed evaluations of their company-level performance. The next step required training at the brigade level to demonstrate full operational readiness. The series of exercises involved would test the doctrine, organization, training, materiel, leadership, and personnel of the entire command. To be successful, the brigade would have to prove that it had moved beyond the prototype stage and had become a fully integrated brigade combat team capable of holding its own in a hostile environment.

The brigade's officially approved doctrine emerged with the completion of new field manuals in early 2003. Over fifty separate manuals, in complete or final draft versions, were in circulation by the beginning

of the year. TRADOC published regulations on company operations in January 2003, on brigade operations in March, and on battalion operations in April. All had to be validated in the field.

On 3 February 2003, U.S. Forces Command released a plan to rate the brigade's operational readiness and to assess the validity of its doctrine. Under this plan, a number of training events would occur, most prominently a brigade exercise at the National Training Center running from 1–11 April 2003 and a certification exercise at the Joint Readiness Training Center from 17–27 May. Paralleling those efforts and in combination with them, a deployment exercise would take place from 4 March–28 May. It would evaluate the brigade's ability to execute strategic and tactical deployments by air, land, and sea.

Simulating mid-to-high-intensity combat, the National Training Center exercise provided the first opportunity for the entire unit to conduct operations with all of its Strykers. Even so, a number of the vehicles still lacked critical items such as the Force XXI Battle Command Brigade and Below (FBCB2) computer system. While elements of the brigade had previously visited Fort Irwin, many of the National Training Center's exercise trainers and umpires, known as observer-controllers, had only a limited grasp of the Stryker's abilities and doctrine. The coaching they provided, as a result, was at times almost counterproductive. The scout platoon leader for the 5th Battalion, 20th Infantry, 1st Lt. John W. Hicks, noted, for example, that his unit's observer-controllers encouraged his men to behave as if they were part of a standard mechanized force equipped with Bradley vehicles.

The 5th Battalion, 20th Infantry's executive officer, Maj. Mark H. Landes, confirmed Hicks' perception, noting that on at least one occasion his unit defeated the Opposing Force by capitalizing upon these misconceptions. Expecting its opponents to employ Strykers in a direct combat role, the Opposing Force fixed its attention on the 5th Battalion, 20th Infantry's vehicles and in doing so fell victim to a classic, dismounted, antiarmor ambush. While contesting any notion that the Opposing Force was "defeated" by the Strykers, the commander of the 11th Cavalry later conceded that "we could normally predict with great certainty when and where a particular engagement would conclude. Against the Strykers, however, that assessment usually remained in question up until the last minute."

The effort to move the brigade's personnel and vehicles, including all Strykers, from Fort Irwin to the Joint Readiness Training Center at Fort Polk was a central part of the deployment exercise. It involved forty-five Air Force C-17 flights direct to Fort Polk and movement of part of the

brigade to a California port where it boarded the U.S. Navy's fast sealift ship USNS *Bellatrix* bound for Port Charles, Louisiana. After offloading the vessel, those units proceeded overland to Chennault Airfield, seventy miles south of Fort Polk, where they boarded C-130 transport aircraft and flew into the Joint Readiness Training Center maneuver area. The brigade became the first unit to conduct back-to-back rotations at both training centers after completing the redeployment from California to Louisiana.

The certification exercise conducted at Fort Polk tested the brigade's soldiers in a mid-to-low-intensity combat scenario that included both small-scale contingency operations and a stability and support operation. The plan for this exercise acknowledged the Stryker Brigade's unique ability to conduct simultaneous offensive and defensive operations within a large area of responsibility while enjoying the benefits of increased flexibility and improved awareness. The brigade's successful completion of the three exercises led Forces Command to certify that it was ready to deploy.

Step Four: Taking the Field

As the 3d Brigade, 2d Infantry Division's equipment and personnel started returning to Fort Lewis on 28 May 2003, the brigade began preparing for a much more formidable challenge. In accord with the TRADOC's 30 December 1999 directive outlining the process for creating the Stryker Brigade Combat Teams, the 3d Brigade began preparations for overseas deployment. Since the U.S. Army was fighting in both Afghanistan and Iraq, the new formation's first operational assignment would take it to war.

On 23 July the acting Chief of Staff of the Army, General Keane, announced that the service was planning to send home the first units deployed for Operation IRAQI FREEDOM and identified the Stryker Brigade as one of their replacements. To that end, the brigade commander, Col. Michael E. Rounds, directed his staff to begin planning a final field exercise to train newly arrived battalion and company commanders and other key personnel. Using training areas at Fort Lewis, the two-week effort involved a series of special tests designed to train not only individuals and small units, but also members of brigade and battalion staffs who had to be able to deal with two or more complex events simultaneously. The brigade also had to devise a plan to train replacements for a large number of soldiers scheduled to leave for new assignments prior to the deployment.

There was one issue Rounds could not address: the Stryker's vulnerability to rocket-propelled grenade (RPG) antitank systems. The Army had been examining the limitations of the vehicle's medium-weight armor for some time. The prime contractor for the Stryker program, General Motors, had in November 2002 subcontracted to United Defense Industries the development of add-on armor capable of protecting the vehicles against RPG rockets. The solution failed to meet Army specifications. In the summer of 2003, after tests had shown that Strykers were vulnerable as well to 14.5-mm. armor-piercing ammunition, General Motors had added a 3-mm. steel plate behind the vehicle's already improved ceramic appliqué armor. Even that, however, was too little to shield the vehicle from Soviet-designed RPG7 antitank weapons, which were by then in widespread use by Iraqi insurgents.

History suggested a solution. During World War II the Germans had hung armored skirts around the suspensions and turrets of their lighter vehicles to prematurely detonate U.S. bazooka warheads. American tankers in Vietnam had used chain-link fencing or chicken wire to achieve the same effect against North Vietnamese and Viet Cong rocket grenades. Applying those precedents, the Army tested an updated version of the idea at its Aberdeen Proving Ground in Maryland during July 2003. The solution, slat armor, involved the addition of an encircling grid of hardened steel bars to a Stryker's hull to make antitank rockets detonate before hitting anything vital. The expedient protected the vehicles much better but added some 2.5 tons of dead weight to each and expanded its girth by close to three feet. Although this inevitably affected the Stryker's transportability by aircraft and its maneuverability in urban areas, there were no immediate alternatives. By December, within a month of arriving in theater, all the brigade's vehicles carried the modification.

As the fourth anniversary of General Shinseki's original call for the development of a prototype intermediate brigade approached, the Stryker Brigade began its final preparations for deployment. All its major subordinate units appointed rear detachment commanders and established family support groups. The troops themselves completed all the processing steps required before departing on their year-long mission.

On 9 October 2003, with personnel and equipment certified combat ready, the brigade loaded its vehicles and gear aboard two roll-on/roll-off vessels, the USNS *Shugart* and the USNS *Sisler*, to begin the trip to Iraq. The vessels left Tacoma on 22 October and were slated to dock at the Port of Kuwait on 12 November. The force's advance party arrived in Kuwait on the same day the ships departed the United States. Some of its members immediately moved on to Camp Udari,

the brigade's staging area in northern Kuwait. Others went to the Port of Kuwait to begin coordinating with members of the Army Reserve's 589th Transportation Group (Forward) in preparation for the arrival of the vessels carrying the brigade's vehicles and equipment.

The remainder of the brigade's troops began deploying by air on 30 October, following a formal departure ceremony at Fort Lewis. The experience of Lt. Col. Karl D. Reed's 5th Battalion, 20th Infantry, was typical. When the unit landed at Kuwait City International Airport, most of its troops moved directly to Camp Udari; but several details split off to the Port of Kuwait to unload the unit's gear and equipment from the transports. That done, they moved its 149 vehicles, 49 trailers, 13 generators, and 5 MILVAN cargo containers to a temporary holding area at Udari. There, the battalion's Strykers underwent a series of final modifications that included the addition of slat armor.

Once the brigade's soldiers reunited with their equipment they began intensive training in small-unit skills and tactics. Colonel Rounds emphasized that each soldier, regardless of military specialty, had to know and become comfortable with his weapon, so brigade members made frequent trips to firing ranges. A capstone exercise involving convoys moving along a five-mile live-fire range featured several mock ambush positions hidden along the road. The troops fired at silhouette targets placed behind demolished cars while the convoy drove through the simulated kill zone at twenty miles per hour. By the time the exercise ended, Sfc. Max D. McLaughlin remarked, the command had put its personnel "through every training situation imaginable."

Colonel Rounds, aware that his brigade would replace the 101st Airborne Division in northern Iraq, directed his staff to begin work on achieving a smooth transfer of authority, to become familiar with the territory the force would soon occupy, to coordinate effective convoy movement, and to plan for possible combat scenarios the enemy might use to test the unit's mettle. The brigade's 5,000 infantrymen and other personnel believed they were well prepared for combat, but one question remained: Would the organizational structures the brigade had established at Forts Irwin and Polk and the strategies it had used in practicing for the mission hold up when the fight began?

The Test of Combat November 2003–November 2004

The brigade entered combat under circumstances far different from those American units experienced from March to May 2003, during the early phases of Operation IRAQI FREEDOM. Although President George W. Bush publicly announced the end of major combat operations in Iraq during a 1 May visit to the USS *Abraham Lincoln*, peace had not returned to that country. Instead, attacks directed at U.S. and coalition soldiers and Iraqi civilians were slowly increasing in certain areas. Mounting evidence indicated that Ba'ath party loyalists, religious radicals, Iraqis angered by the presence of foreign soldiers in their country, unemployed military personnel, and foreign terrorist groups were organizing resistance. Complicating matters, some of the violence involved conflicts between religious groups indigenous to Iraq, particularly between Sunni and Shi'a Muslims over grievances centuries old. The combination of volatile religious, political, and military factors would result in the Stryker Brigade's becoming embroiled in numerous combat operations over the coming year.

In some respects Iraq was an ideal proving ground for the new unit. If its extensive system of paved roads supported the employment of wheeled armored vehicles, its mostly arid terrain also facilitated off-road movement. Meanwhile, with skies cloudless for most of the year, the rainy season confined to a brief period during the winter, and sandstorms limited to early spring, it provided an excellent setting for unmanned aerial vehicles, close air support, and helicopters.

Capt. Eric P. McAllister's Troop C, 1st Squadron, 14th Cavalry, led the brigade into Iraq on 3 December 2003. As the unit crossed the Kuwaiti border and headed toward the city of Mosul, 720 miles away in northern Iraq, battalion-level advance parties and other brigade elements accompanied it. The initial portion of the trek ran smoothly across Iraq's western desert. Following unpaved secondary roads, the unit halted only for an overnight stay at a convoy support center. Circumstances were much different two days later, when the main body of the brigade set out along the same course. Heavy rains rendered the roads impassible. A number of convoys detoured east by way of a longer route that crossed a more heavily populated region.

While many an American unit had made the same dusty trip over the previous nine months, even the most casual observer could see that something was different about these convoys. The huge equipment

transports that carried Abrams tanks or Bradley Fighting Vehicles were largely absent. Freed from the large logistics tail that accompanied other armored units, the new brigade made its way north without the assistance of HETS.

The unit was set to relieve the 101st Airborne Division when it reached Mosul. While it was moving north, however, the 4th Infantry Division, which was responsible for the Sunni Triangle (a turbulent region that stretched north and west of Baghdad to the cities of Tikrit and Ramadi) began to experience a considerable increase in opposition from insurgents. The division's commander, Maj. Gen. Raymond T. Odierno, requested reinforcement from the commanding general of Coalition Joint Task Force 7 (CJTF-7), Lt. Gen. Ricardo S. Sanchez. Sanchez gave the job to the Stryker Brigade.

On 7 December the brigade's lead elements arrived at Samarra, a city of 50,000 located in the Sunni Triangle some sixty miles north of Baghdad, and began settling into Forward Operating Base (FOB) PACESETTER, six miles east of the town. To that point, despite the change in final destination and unexpected detours, the movement from Kuwait into Iraq had gone well. "The 540-mile move [to Samarra]," Colonel Rounds later affirmed, "speaks a lot about the capability of the brigade—our operational agility. We were relatively self-sustaining and self-moving, and when we came into PACESETTER, we quickly made the transition to...one of the most complex missions in Iraq. It was a great first test."

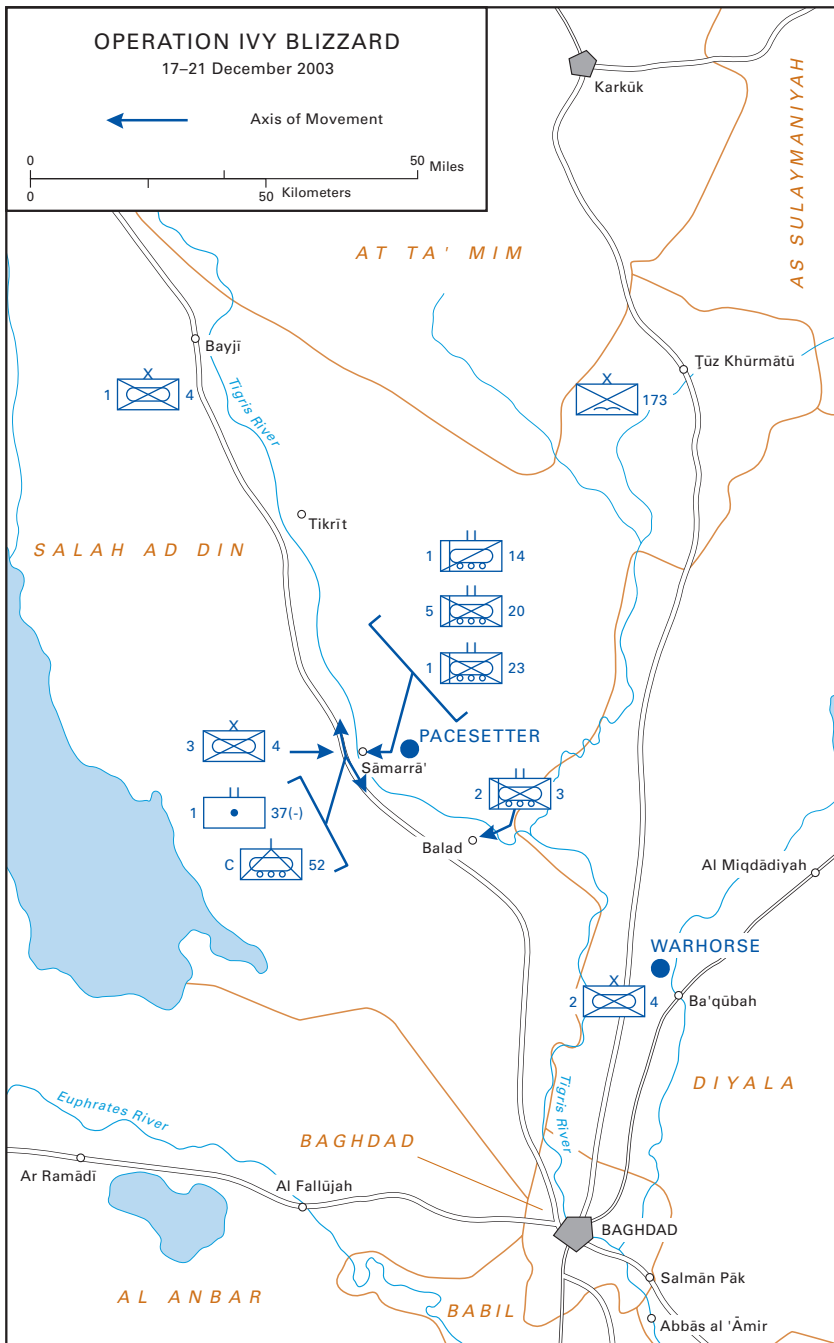
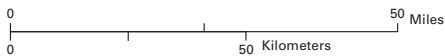
While the brigade's soldiers began familiarizing themselves with their newly assigned area of operations, General Odierno and Colonel Rounds discussed how to fit the unit into the division's operations. Their plan sought to pass along as quickly as possible the combat lessons veteran units had already learned while giving the newcomers a sense of the terrain. Following that approach, between 9 and 12 December the Strykers carried out a series of limited raids and patrols under the watchful eyes of experienced 4th Division units. They concentrated on Samarra and on the town of Balad, which stood several miles to the southeast of PACESETTER.

Meanwhile, the 4th Division's staff began preparations for an operation named IVY BLIZZARD that would begin shortly after midnight on 15 December. (*Map 1*) Employing the Stryker Brigade and the 4th Division's 3d Brigade Combat Team, the effort targeted retired officers from Saddam Hussein's army and prominent members of his Ba'athist Party who had made Samarra their haven. Under the plan, the Strykers would handle the eastern side of the city while the 3d Brigade covered its western half.

OPERATION IVY BLIZZARD

17-21 December 2003

← Axis of Movement



Map 1

Two days before IVY BLIZZARD began, Rounds' brigade completed the 4th Division's familiarization program and began operations on its own. As the 1st Platoon from Troop C, 1st Squadron, 14th Cavalry, traveled down a dusty side street in Samarra, a remotely detonated improvised explosive device (IED) buried in the road went off under the last vehicle in line. The blast was so powerful that it lifted the front end of the 19-ton Stryker several feet into the air. The hull absorbed the explosion, saving the crew, but the driver suffered a fractured leg. Local residents gathered to watch as the vehicle burned throughout the afternoon. Fortunately, the fire was confined to the engine compartment, permitting maintenance crews to later recover the vehicle and send it back for repair.

Circumstances took a turn for the better early the next morning, when the head of the Coalition Provisional Administration, Ambassador L. Paul Bremer, announced the capture of Saddam Hussein in Tikrit. As the news of the dictator's detention came over television and radio, on the advice of General Sanchez, General Odierno ordered the 4th Division to postpone IVY BLIZZARD. Sanchez felt that a temporary suspension of large-scale operations would be prudent until the command could assess the impact Saddam's arrest would have on the Iraqi people.

On the morning of 15 December, after giving Saddam's henchmen time to ponder word of his fate, the 4th Division instructed the Stryker Brigade to dispatch a small force into Samarra to test public reaction to the news. Colonel Rounds directed Colonel Reed's 5th Battalion, 20th Infantry, to send a platoon into the city. Reed instructed Capt. Damien E. Mason's Company B, 5th Battalion, 20th Infantry, to take on the task; Mason delegated it to 1st. Lt. Robert S. McChrystal's 3d Platoon. The battalion's Company A would stand by with a platoon to reinforce McChrystal if necessary.

Accompanied by two Strykers, McChrystal's men entered the outskirts of Samarra on foot. Proceeding down a street, the lieutenant noticed that nearby shops were closing. Other members of the platoon observed a flock of pigeons take flight. Some would later surmise that townspeople released the birds to signal the Americans' arrival. Moments later, a pair of insurgents riding motorcycles and wielding assault rifles approached and opened fire. Keenly aware of the presence of a nearby mosque and of a group of children, McChrystal ordered only his snipers to return fire. The attackers fled, allowing the Americans to move deeper into the city.

A short while later the platoon uncovered a hidden IED, which it destroyed by lobbing several fragmentation grenades. The echoes of the explosions had no sooner died away than McChrystal and his men found



McChrystal's platoon on the outskirts of Samarra.
Right to left: *Spc. Bruce W. Gridley, Spc. Jose A. Soto (prone),*
S.Sgt. Donny Lewis (kneeling) and Pfc. Justin M. Poirier (walking with
AT4 missile launcher).

themselves under fire from enemy fighters wielding RPG launchers. Small-arms and mortar fire followed. The enemy's aim was off. Neither the troopers nor their vehicles suffered any damage.

The second ambush triggered the commitment of the platoon from Company A, but the unit's arrival had no effect on the enemy, some fifteen to twenty men. Instead, another round of RPG and small-arms fire ensued, leaving no doubt in anyone's mind that the capture of Saddam had done nothing to dampen the ardor of the insurgents in Samarra. Even so, the enemy's decision to stay and fight proved unwise, for thirty U.S. soldiers dismounted from Company A's Strykers rather than the twelve to fifteen carried by a similar number of 4th Division Bradleys. With so many troops on hand, the Americans could easily maintain security around their vehicles while also fielding a respectable dismounted fighting force. The two platoons began to maneuver aggressively against their adversaries.

The ensuing firefight lasted forty-five minutes before the last of the enemy retreated. By then the 3d Platoon, Company B, had killed eleven insurgents. Sgt. Randall W. Davis, a Company B sniper supporting



A sniper assigned to Company C, 1st Battalion, 23d Infantry, peers through the scope of his M21 rifle during a mission in Mosul, Iraq.

McChrystal's 3d Platoon, accounted for seven of the eleven, engaging them at ranges from 100 to 300 yards with an M4 carbine equipped with all-purpose optics. Neither of the American units had casualties.

Davis' contributions were a product of a little-known element of the Army's Transformation effort. From its inception, the Stryker brigade was organized for urban combat operations. As such, the Army planned to provide the unit with a larger than normal complement of skilled marksmen. The success of McChrystal's platoon validated that initiative. Over the months to come the sniper sections belonging to each Stryker battalion and the sniper teams that were part of each company would do yeomen's work against an enemy who frequently employed innocent bystanders as human shields.

The engagement in Samarra also provided insight into the value of other efforts the Army was making through the Transformation process to improve the capabilities of the infantry. As the 5th Battalion, 20th Infantry's scout platoon leader, Lieutenant Hicks, remarked, the use of individual equipment such as precision sights, protective eyeglasses, lightweight helmets, better protective vests, specialized items for quickly

entering buildings, Global Positioning System (GPS) devices, and miniature radios had all proved effective, speeding up decision making, improving response times, and saving lives. New gear and improved technology, however, had limits. The training of the battalion's officers and men had made the difference in the battle. The months of hard work they had put into mastering new skills and tactics stood them in good stead.

On the evening after the engagement, reasoning that the enemy's morale was relatively unaffected by Saddam's capture, General Odierno notified Colonel Rounds that he had rescheduled Operation IVY BLIZZARD for 17 December. At 0100 elements of the 5th Battalion, 20th Infantry; the 1st Squadron, 14th Cavalry; and the 1st Battalion, 23d Infantry, would begin clearing operations within Samarra while the 2d Battalion, 3d Infantry, secured the town of Balad. The 1st Battalion, 37th Field Artillery, reinforced by the brigade's antitank unit, Company C, 52d Infantry, would patrol the roads north and south of Samarra.

For the next several days, the three units conducted raids on enemy targets, collecting many detainees and finding numerous arms and

Kiowa Warrior flying over a U.S. military unit in Iraq



equipment caches. On the evening of 21 December, insurgent forces responded by showering FOB PACESETTER with eleven 107-mm. rockets, all of which hit within the confines of the camp. One exploded within 100 yards of the 5th Battalion, 20th Infantry's rear command post but caused no casualties. Using counterbattery radar to pinpoint the enemy's launch site, the 155-mm. howitzers of Battery A, 1st Battalion, 37th Field Artillery, replied with a barrage of high-explosive shells. A search of the target area a short while later revealed that the insurgents abandoned it so hurriedly that they left behind twenty-one unfired rockets.

As enemy activity within Samarra declined under the pressure from the 4th Division, CJTF-7 informed General Odierno that the Stryker Brigade would move on to Mosul. The deployment that followed began in late December and lasted through the first week of January 2004. Each morning, as elements of the brigade prepared to depart, groups of vehicles lined up inside FOB PACESETTER. When a convoy moved out, a security element preceded it to clear the road of anything that might pose a threat. Kiowa Warriors (armed reconnaissance helicopters) from the 3d Squadron, 17th Cavalry, flew escort. The unit completed its relocation on 7 January without the loss of any personnel or equipment.

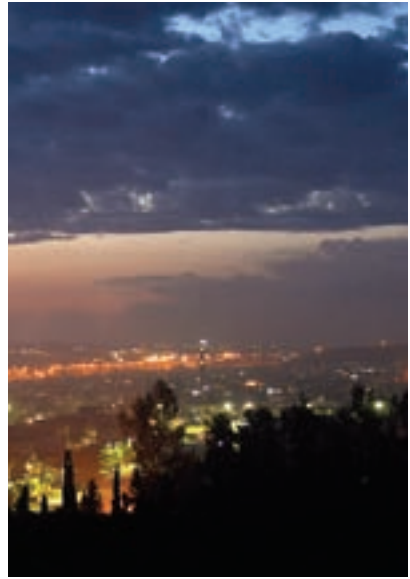
Task Force OLYMPIA

When each Stryker battalion arrived in Mosul, it paired up with an element from Maj. Gen. David H. Petraeus' 101st Airborne Division. The ensuing shift of responsibilities resembled the one that had occurred when the brigade had joined the 4th Division in Samarra. Reflecting the more permanent nature of the assignment, however, the process centered upon a deliberate "left-seat/right-seat" training arrangement. The Stryker units first observed the troops of the 101st at work. Then they assumed the tasks themselves while the veterans critiqued their efforts.

In areas just outside of the city, a single 800-soldier Stryker battalion backfilled an entire 5,000-man infantry brigade from the 101st Airborne Division. For example, in the region north and west of Mosul where Iraq bordered Syria and Turkey, the 1st Squadron, 14th Cavalry, began shadowing the 101st's 3d Brigade Combat Team. Meanwhile, in the area south and west of the city, the 5th Battalion, 20th Infantry, fell in with the 101st's 1st Brigade Combat Team. The wide expanse of the city's complex urban environment, however, required a higher concentration of troops. There, two Stryker battalions—the 1st Battalion, 23d Infantry, and the 2d Battalion, 3d Infantry—worked alongside the 101st's 2d Brigade Combat Team. One Stryker battalion assumed responsibility for

the eastern half of the city while the other took control to the west.

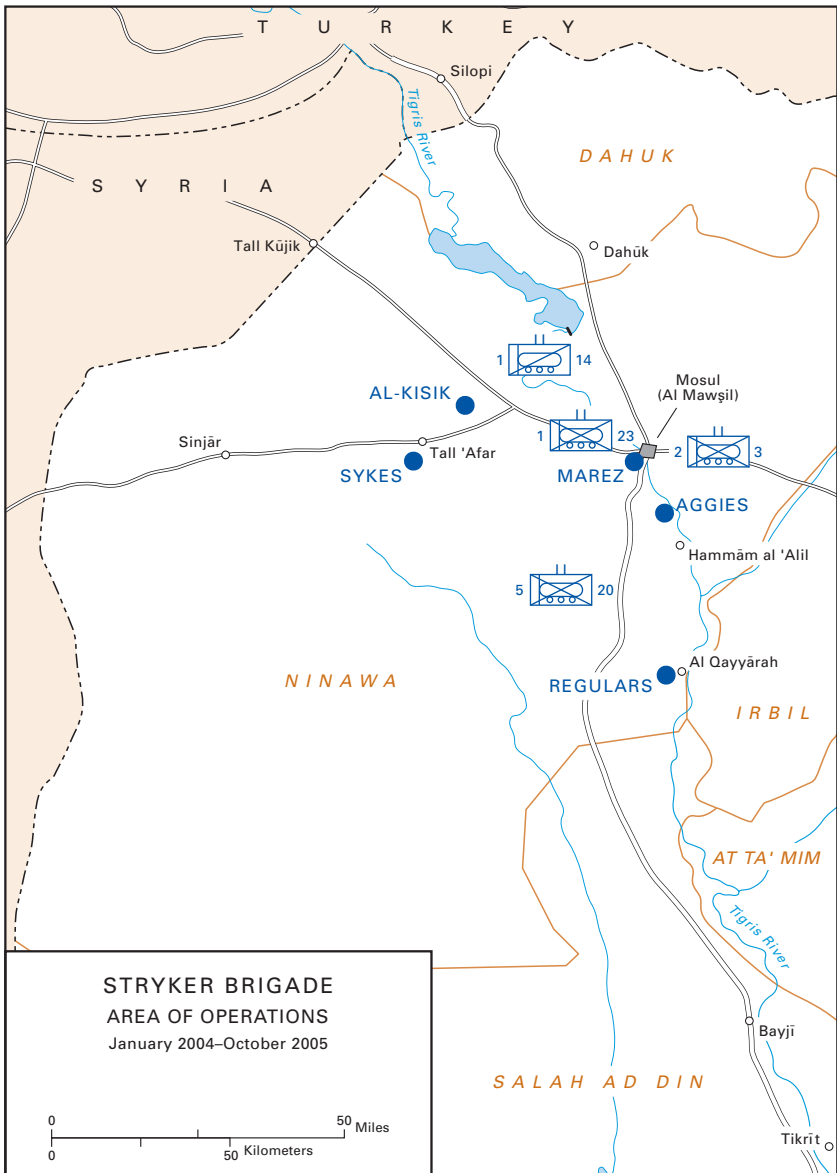
The challenge of securing a large urban zone caused the Stryker Brigade to assign additional missions to some of its subordinate elements. Lt. Col. Steven A. Sliwa's 1st Battalion, 37th Field Artillery, for example, discovered that his unit's traditional fire support role would be limited to the use of its radars to pinpoint enemy mortar and rocket positions for destruction by armed helicopters or infantry. As a result, he and his men found themselves conducting patrols throughout the Ninawa Province surrounding Mosul. Along with Iraqi Army and police units, they also provided security for convoys of Turkish trucks transporting fuel from Iraq's oilfields at Kirkuk. By the end of their year in Iraq, the artillerymen would calculate that they had provided protection for some 75,000 vehicles carrying cargo valued at \$1 billion.



*A nighttime view
of the city of Mosul*

The 1st Squadron, 14th Cavalry, was the first Stryker unit to assume its full role, replacing the 3d Brigade Combat Team on 16 January. Five days later the 5th Battalion, 20th Infantry, took over from the 1st Brigade Combat Team. The handoff between the 2d Brigade Combat Team in Mosul proper and the two Stryker battalions taking its place took longer because the city had some 1.8 million inhabitants and a large supporting infrastructure. (See Map 2.) For example, where a company commander assigned to either the 1st Squadron, 14th Cavalry, or the 5th Battalion, 20th Infantry, had to coordinate with only one or two Iraqi police detachments in fulfilling their duties to the north and south, companies working inside the city generally had to develop a relationship with a half-dozen or more. The effort to sort through it all took time, but the transition was nonetheless complete by 25 January 2004.

After conducting a detailed review of his new area of operations, Colonel Rounds realized that some changes were needed due to the fact that the infantry version of his Strykers transported nine dismounted



Map 2

soldiers while the reconnaissance variants carried only four cavalry scouts. While that might have been fine under other circumstances, he

decided that his cavalry unit would need additional dismounted personnel to maintain security since the force would be working within the city of Tall Afar. Given that the 5th Battalion, 20th Infantry's area encompassed a fairly large but sparsely populated region, he solved the problem by switching the unit's Company C, under the command of Capt. Eric D. Beaty, with Captain McAllister's Troop C of the 1st Squadron, 14th Cavalry.

The mission Beaty's unit received when it arrived in Tall Afar exemplified the scale of responsibility virtually every rifle company within the brigade assumed. Company C had charge of a zone that measured thirty by twenty-four miles. In addition to protecting the city's 340,000 Arab, Kurdish, and Turkmen inhabitants, the unit oversaw the security of six smaller towns; numerous villages; two major international oil pipelines and their associated processing infrastructure; the Mosul Dam, the primary source of electricity for all of northern Iraq; the Al-Kisik Military Compound, which was the future site of a New Iraqi Army division and headquarters; and miles of roadways and rolling terrain linking all these places. The company's mission involved the provision not only of security but also of support for local governments and reconstruction projects.

The changeover between the 101st Airborne Division and the Stryker Brigade paralleled higher-level adjustments in the command and control of coalition forces in northern Iraq. In December 2003 Task Force (TF) OLYMPIA, a special subelement of the I Corps headquarters at Fort Lewis, had been created under the corps' deputy commander, Brig. Gen. Carter F. Ham. Moving to Iraq at about the same time as the Stryker Brigade, the task force assumed the command responsibilities General Petraeus and his staff had held.

The major subordinate elements of TF OLYMPIA consisted of the Stryker Brigade; the 3d Squadron, 17th Cavalry, an aviation unit temporarily detached from the 10th Mountain Division; the 44th Corps Support Battalion; and the 416th Civil Affairs Battalion. A number of combat support and combat service support elements previously attached to the 101st Airborne Division (the 503d Military Police Battalion, the 1092d Engineer Battalion, the 67th Combat Support Hospital, and the 234th Signal Battalion) would also remain to support the task force. In addition to the American units, General Ham also had operational control over four Iraqi National Guard battalions; three Iraqi Border Police battalions; and several thousand members of the Iraqi Facility Protection Security Force, a specially trained organization under the Ministry of Interior responsible for safeguarding Iraq's strategic infrastructure, government facilities, and cultural and educational sites.



General Ham (left) and a senior Iraqi Army officer during an inspection flight over Mosul

When the 101st Airborne Division formally ceded its responsibilities at Mosul to TF OLYMPIA on 5 February 2004, 9,000 American soldiers replaced 23,000. Focusing on their mission, the newcomers began immediately to conduct daily mounted and dismounted patrols to reassure local inhabitants, to develop relationships with Iraqi security forces, to protect critical installations, to foster reconstruction efforts, and to search out insurgents and weapons caches. Portions of the force encountered the enemy frequently; others had little contact. Day by day, however, enemy attempts to identify the Stryker Brigade's vulnerabilities grew bolder. Whether the unit could maintain the restless calm in northern Iraq that the much larger 101st had enforced remained to be seen.

Initial Operations

Although the Strykers began to encounter RPG attacks almost immediately, their ill-trained enemy failed to score a telling hit with that weapon until early February, when a Stryker belonging to Capt. Anthony J. Newton's Company C, 2d Battalion, 3d Infantry, took one in Mosul. Newton had considered asking permission to remove the slat armor from his vehicles because of the difficulty the big machines encountered when



American and Iraqi soldiers on a joint cordon and knock mission in Mosul during the hours of darkness

moving along narrow streets. When the armor saved that Stryker and a second vehicle a few days later, he decided otherwise.

At the time, enemy forces were attempting to interrupt American efforts to train Iraqi National Guard units. In fact, the Guard's instructional facility twelve miles south of Mosul at Hammam al Alil soon became one of the hottest spots in TF OLYMPIA's area of responsibility. Responding to the problem, on 8 February the Stryker Brigade began a series of "cordon and knock" operations in the area. They involved sealing off a neighborhood and then asking each homeowner for permission to search his dwelling.

Over the next several weeks the tempo of cordon and knock operations increased, as did the brigade's involvement in the fighting. On 28 February, for example, a patrol from the 2d Battalion, 3d Infantry, investigated a drive-by shooting directed at an Iraqi Police checkpoint by two assailants in a car and two riding on a motorcycle. Assisting the local police, the troopers engaged the car and killed its occupants while the policemen stopped the motorcycle and detained its riders.

On 5 March, as soldiers from the 5th Battalion, 20th Infantry, conducted a patrol in Hammam al Alil, they came under attack from

four insurgents firing from a nearby rooftop. The Americans returned fire and called for assistance. While moving against the ambushers, a reinforcing element from the same battalion encountered resistance from two other armed men. The troopers returned fire, forcing the pair to surrender. Meanwhile, the patrol that had encountered the original ambush killed two of its assailants and took a third prisoner. The small scale of these incidents was typical of the clashes with insurgents that U.S. and Iraqi government forces were experiencing around Mosul at the time.

In addition to its security responsibilities, the brigade also inherited a mission to train Iraqi security forces. This process normally entailed pairing newly organized Iraqi formations with U.S. counterparts. The 5th Battalion, 20th Infantry, for example, adopted the 102d Iraqi National Guard Battalion, providing it with small-unit and individual soldier instruction. The U.S. rifle platoons involved alternated patrol duty with periods in which they trained an Iraqi company. Overall, the system worked surprisingly well despite the strains it placed on the American units, which rotated between the two duties virtually without a break.

The 5th Battalion, 20th Infantry's fire support officer, Capt. Matthew P. Lillibridge, was responsible for supervising the unit's overall training efforts. At first Lillibridge had little more than his outgoing personality and well-honed people-handling skills to guide him. Much to his advantage, however, he also had the assistance of an Iraqi-American soldier, Pfc. Husam Razaq Almusawi, from battalion headquarters. A linguist dedicated to his profession, Almusawi served as the captain's interpreter and translator of captured enemy documents for the battalion intelligence officer and in his spare time taught Iraqi National Guardsmen how to read and write Arabic and English.

Lillibridge and Almusawi primarily acted as intermediaries between instructors from American rifle platoons and their counterpart Iraqi companies. They also coordinated the training schedule; arranged for battalion or brigade logisticians to provide ammunition, vehicles, and other necessary equipment and supplies; and offered feedback to both the Iraqi and American chains of command on the progress of the National Guard units. Just as important, the pair contributed significantly to increasing trust between local security forces and their U.S. advisers.

The brigade's focus on training receded on 28 March, when enemy activity in Mosul took a marked turn upward. On that day gunmen opened fire on a convoy carrying Iraq's public works minister, Nisreen Berwari, killing a security guard and wounding two others. The minister



Pfc. Enrique P. Rosano demonstrates a firing position to an Iraqi soldier. Rosano is a member of Company C, 5th Battalion, 20th Infantry, overseeing the training of new Iraqi National Guard recruits.

was unharmed. Within hours of the assassination attempt, anticoalition forces killed a Briton and a Canadian working as security guards at a local power station. At the same time, insurgents took an OLYMPIA military police patrol in Mosul under small-arms fire. The Americans returned fire and gave pursuit but were unable to bring their assailants to bay. Late that afternoon another military police patrol noticed a vehicle similar to the one involved in the earlier incident. When U.S. personnel approached, four occupants in the car opened fire, slightly wounding two of the troopers. The Americans returned fire, killing all four of their opponents. A search revealed three automatic rifles hidden in the car along with an RPG launcher, four rockets, four grenades, and other assorted ordnance.

The first loss of a Stryker also occurred on 28 March; during a mounted patrol in Mosul, a rocket-propelled grenade hit the left rear of a



S.Sgt. Francisco J. Pinedo and his fellow soldiers from Company C, 2d Battalion, 3d Infantry, maintain security while members of the Iraqi National Guard search a house in Mosul.

vehicle belonging to Company B, 1st Battalion, 23d Infantry. Although the vehicle's slat armor successfully deflected the incoming round, fragments from the exploding warhead ignited an externally mounted fuel container, setting the Stryker afire. The occupants, all unharmed, were unable to extinguish the blaze. As a result of this incident, the brigade directed its subordinate units to move external fuel containers mounted on Strykers to a more secure location.

Unsure of whether the reduction in troop strength that had followed the departure of the 101st Airborne Division had contributed to the recent increase in attacks, General Sanchez decided that additional U.S. units would be necessary, at least temporarily, to augment TF OLYMPIA. A light infantry unit from the 25th Infantry Division's 2d Brigade Combat Team, Lt. Col. David M. Miller's 1st Battalion, 14th Infantry, drew the job. Accompanied by several UH-60 Black Hawk helicopters and seventy wheeled vehicles, the unit arrived at FOB FULDA, just south of Tall Afar, on 31 March. Its presence enabled the Stryker Brigade to beef up patrols.

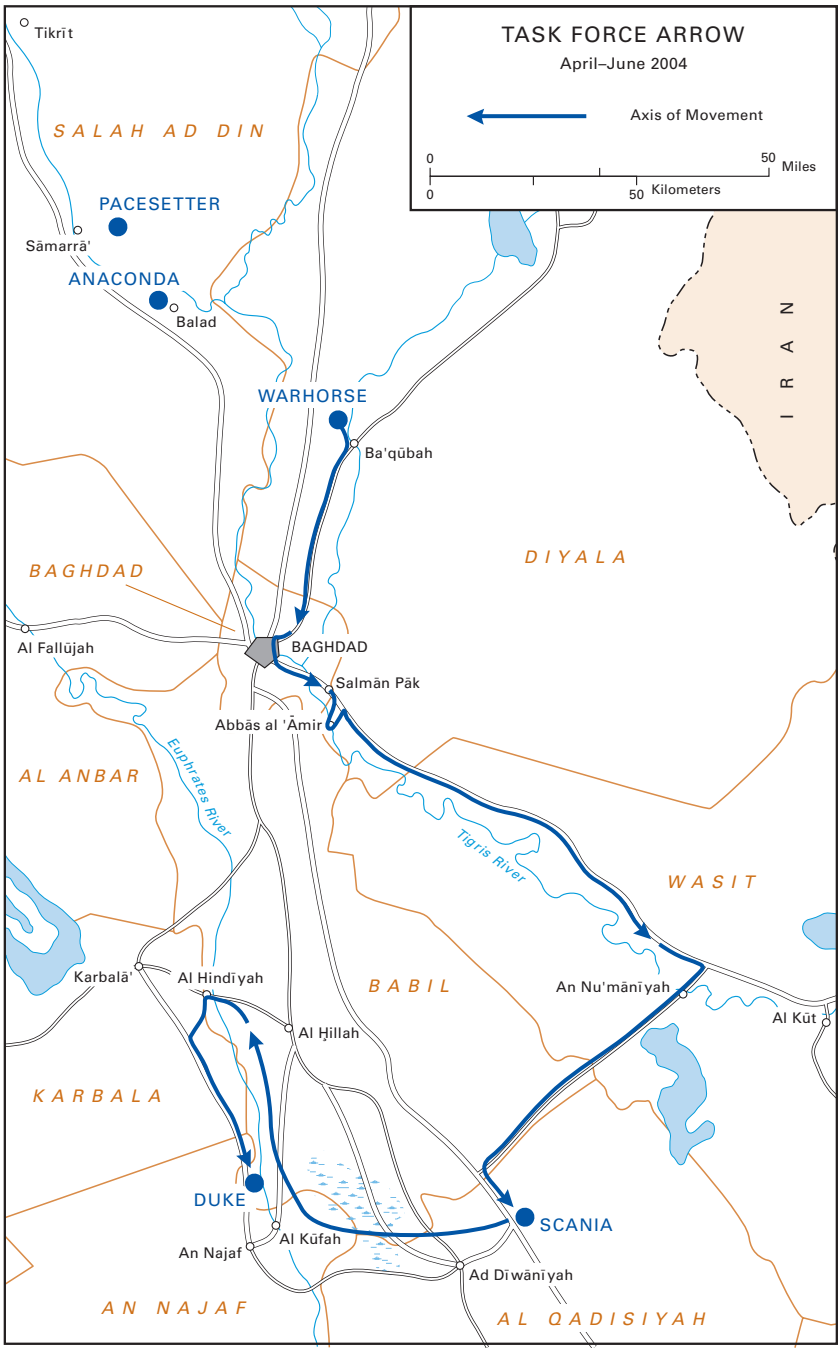
Task Force ARROW: An Najaf

The growing violence was not confined to northern Iraq. It was spreading southward to Baghdad and beyond. There, a number of Iraqi political groups, both legal and unsanctioned, were seeking to influence the formation of a new Iraqi provisional government that would assume power on 30 June. The most threatening of these was a movement headed by radical Shiite cleric Muqtada al-Sadr and located in An Najaf, some eighty miles south of Baghdad. (See Map 3.) Apparently coordinating their efforts with insurgents loyal to Saddam Hussein and seeking to exploit the inexperience of the new American units rotating into central Iraq, al-Sadr and his followers inaugurated a violent uprising in late March 2004. Coalition forces soon found themselves battling Shiite militiamen to the south and east of Baghdad and Sunni Muslims to the north and west. By early April al-Sadr's adherents had also begun to threaten TF OLYMPIA's logistical pipeline to the south by destroying several bridges over the Tigris and Euphrates Rivers and by attacking truck convoys moving through Baghdad.

In response, the American command directed the 1st Infantry Division to send Col. Dana J. H. Pittard's 3d Brigade Combat Team to An Najaf. Pittard would employ one of his own mechanized battalions, and OLYMPIA would furnish him with two more: the 1st Battalion, 14th Infantry, and a Stryker battalion that had yet to be determined.

Informed of the development, the task force's commander, General Ham, expressed concern that the loss of two of the brigade's five maneuver battalions would leave him shorthanded at a time when the situation in Mosul seemed to be heating up. After discussing the matter with Colonel Rounds, he decided that because its area of operations seemed less volatile than those of the brigade's other elements, the Stryker unit to join Pittard would have to be the 5th Battalion, 20th Infantry. After informing the battalion commander of his new mission, Colonel Rounds nonetheless specified to Colonel Reed that his unit would have to leave two rifle companies behind to maintain a presence in its current sector. Colonel Rounds compensated for this by giving Reed a company apiece from the 2d Battalion, 3d Infantry, and the 1st Battalion, 23d Infantry. Reed's headquarters would provide command and control for the new composite unit, TF ARROW.

Rounds instructed his deputy brigade commander, Lt. Col. Robert E. Choppa, to assume command of the residual force that would be responsible for the area vacated by Reed's battalion. Christened TF SYKES, Choppa's force included a portion of the 5th Battalion, 20th Infantry's Headquarters and Headquarters Company; Troop C, 1st Squadron, 14th



Map 3

Cavalry; Company C, 52d Infantry; and Company C, 276th Engineers, minus one platoon. The 5th Battalion, 20th Infantry's Company A, minus one platoon, would also remain behind. Functioning as a separate force, it would secure the Hammam al Alil training facility while Captain Beaty's Company C, 5th Battalion, 20th Infantry, continued operations in Tall Afar. The 2d Battalion, 3d Infantry, and the 1st Battalion, 23d Infantry, would meanwhile shift their boundaries within Mosul to cover the areas vacated by the units joining TF ARROW.

Reed's task force would comprise elements of his own headquarters company commanded by Capt. Tobias O. Vogt; Capt. Bart G. Hensler's Company A, 1st Battalion, 23d Infantry; Capt. Jeffrey C. Bryson's Company B, 2d Battalion, 3d Infantry; Captain Mason's Company B, 5th Battalion, 20th Infantry; and a logistics team from the 296th Brigade Support Battalion. These units joined Reed on 10 April at FOB REGULARS, thirty miles south of Mosul near Qayyarah. Upon arrival each took position in a convoy preparing to move south, but an intense if brief outbreak of violence around Mosul delayed the deployment for a day.

Responding to RPG and small-arms fire that erupted during an unplanned demonstration outside Mosul's city hall the previous day, coalition troops killed three insurgents. Shortly afterward, the 1st Squadron, 14th Cavalry, detained two suspected rebels near Tall Afar and possibly killed a third. During that same period, near Al Thubat, a Stryker patrol from the 1st Battalion, 23d Infantry, received fire from a truck carrying men armed with RPGs. As the vehicle sped away the Americans scored a direct hit with a wire-guided missile, killing all twelve enemy aboard. Despite the surge in violence, the situation seemed more or less in hand by 11 April. Assured that TF OLYMPIA could handle any foreseeable outbreak of violence in the near future even in the absence of its departing battalions, General Ham gave the go-ahead for TF ARROW to head south.

The force's initial destination was FOB WARHORSE, 35–40 miles northeast of Baghdad near Baqubah, where it would join Colonel Pittard's brigade team. Reed sent three officers ahead for initial coordination with the colonel's staff: his battalion operations officer, Maj. Thomas W. O'Steen; the battalion adjutant, Capt. Curt L. Rowland, Jr.; and a representative of the battalion operations section, Capt. Jeremy R. Smith. The three went by helicopter to Logistics Support Area (LSA) ANACONDA, sixty miles north of Baghdad near Balad, where they hitched a ride to Pittard's headquarters at WARHORSE. They arrived just in time for a briefing on the operations order that would guide their efforts. As soon as it concluded, Major O'Steen provided Colonel Reed with a synopsis of the briefing via a secure satellite phone.

Just as Pittard's brigade began its move to An Najaf on 10 April, O'Steen received word that TF ARROW's departure would be delayed for twenty-four hours. Rather than wait at WARHORSE, the major decided that his liaison team would be more useful if it accompanied the departing brigade. He and the other two members of his team joined a 1st Infantry Division convoy and encountered a bridge over the Tigris River that insurgents had destroyed little more than thirty minutes before it arrived. Indeed, the convoy later found that two more bridges along its route were also heavily damaged, a reflection of the Shiite militia's determination to halt or delay any U.S. deployment to An Najaf. The convoy nonetheless managed to locate undamaged bridges and viaducts and continued on its way. Bypassing every obstacle the insurgents set in its path, it arrived at FOB DUKE, twelve miles north of An Najaf, just twelve hours behind schedule.

TF ARROW left FOB REGULARS at 0300 on 11 April. Arriving at WARHORSE eighteen hours later, at 2100, after traveling 300 miles, it discovered that the main body of the 3d Brigade Combat Team had already departed. At that time, Colonel Reed met with the brigade's executive officer, who informed him that the task force would have to leave Baqubah in just a half-hour to escort Forward Logistics Elements 1 and 2 of the 201st Forward Support Battalion (103 vehicles and 350 personnel) to DUKE. To allow his men some sleep and to properly integrate the logistics unit within ARROW's order of march, Reed negotiated a brief delay in the departure time.

The trip to An Najaf would not be easy because of the continued destruction of bridges and overpasses. Had TF ARROW been composed exclusively of Strykers and supporting vehicles, insurgent attempts to block its movement would not have had much impact. As it was, since the 201st's vehicles ranged in size from light trucks to heavy tractor-trailers carrying Bradley Fighting Vehicles, route planning was no easy task.

Informed that all highway overpasses west of Baghdad were impassable, Reed searched to the east of the city for an undamaged road to An Najaf. In the end, he decided his force should follow a circuitous route that paralleled the Tigris River. Although he had heard that at least one bridge twenty-five miles to the southeast of Baghdad remained intact, the insurgents often seemed to be a step ahead of him. If they destroyed that bridge as they had so many others, he was prepared to travel as far as Al Kut, 100 miles farther southeast, in search of an intact crossing.

By midnight on 11–12 April, everyone was briefed, vehicles were topped off with fuel, and the 201st had been integrated into ARROW. The battalion scouts led the way, followed by Captain Bryson's Company

B, 2d Battalion, 3d Infantry; Captain Hensler's Company A, 1st Battalion, 23d Infantry; Captain Vogt's Headquarters and Headquarters Company, 5th Battalion, 20th Infantry (-); both elements of the 201st Forward Support Battalion; and finally Mason's Company B, 5th Battalion, 20th Infantry. By sandwiching the logistics vehicles between Stryker units—which had the benefit of digital networks that displayed friendly locations as well as available information on the enemy's dispositions—Reed sought to keep a hand on the status of each of the convoy's elements as it made its way south.

The Scout Platoon departed WARHORSE at 0001 on 12 April. The force's move through the eastern outskirts of Baghdad was uneventful. Before it reached the site of what was believed to be the closest intact bridge over the Tigris, however, five RPGs simultaneously slammed into the third vehicle in its line of march. The explosions threw everyone in the Stryker to the floor and cut its electrical power and communications. Glancing down at his FBCB2 screen, the platoon leader, Lieutenant Hicks, saw the icon representing the vehicle disappear from his screen.

The scouts returned fire with their .50-caliber machine guns and Mk19 grenade launchers. Moments later Hicks received reports from the disabled vehicle via the crew's squad radios. No one was injured, and the damage appeared minor. Hicks decided to stay and fight until the disabled vehicle could move on its own. The minutes seemed like hours to the troops, as they replied to the enemy's fire with everything they had. Once the damaged Stryker began lurching forward, the entire unit moved several hundred yards beyond the ambush site. Believing he was out of danger, Hicks called a halt and asked the acting platoon sergeant, S.Sgt. Christopher L. Horton, to check on the damaged vehicle. As Horton dismounted, the enemy struck again. Unsure whether he had encountered a second ambush or if his earlier attackers had trailed his Strykers to their new position, Hicks decided to hold in place and to return fire until the crew of the disabled vehicle completed its repairs.

A few minutes later Reed ordered Hicks to break contact and to continue moving toward the task force's initial objective, the bridge at Abbas al Amir, some ten miles farther south. In response, Hicks recommended that Captain Bryson's company send a Stryker platoon to the ambush site in advance of the main body rather than allow the insurgents time to reorganize. Reed agreed. The crew of the disabled vehicle finished repairs just as the lead rifle platoon from Company B, 2d Battalion, 3d Infantry, arrived. With the infantry engaging the insurgents, Hicks and his Strykers moved on.



A Stryker platoon takes up local security prior to crossing under a highway overpass during a tactical road march in Iraq.

Shortly thereafter, Hicks' platoon reached a point where it could observe the bridge at Abbas al Amir. Although unable to detect any enemy activity, the scouts discovered that an explosion had damaged the span so badly that the 201st's HETS could not cross. Reed ordered the scouts to set up an assembly area and to await the arrival of the remainder of the task force. While Hicks' men established a perimeter around a nearby village, local people informed his interpreters that insurgents had blown the bridge only a few hours earlier.

The rest of TF ARROW arrived just after midnight and hunkered down in a circular defensive formation to await the dawn. Soldiers who had been on the move almost continuously since 0300 the previous day tried to catch a few more moments of rest, but the unit's leaders had little time for sleep. Colonel Reed, who had already made the decision to head as far south as Al Kut if necessary, directed his subordinates to prepare their units to move out at dawn. Rather than put the Scout Platoon in the lead again, however, he instructed Captain Hensler's Company A to depart ahead of the main body and to locate and secure an intact crossing site over the Tigris. The move to the south that followed during the next

morning was uneventful. Hensler's Strykers sped along the eastern bank of the Tigris until they found a bridge at An Numaniyah, a moderate-size town just north of Al Kut. The company then mounted guard on the span until the rest of ARROW arrived.

After crossing the Tigris, Hensler's company again took the lead, heading toward the 13th Corps Support Command's Convoy Support Center (CSC) SCANIA, near Nippur, sixty miles west of Al Kut along Highway 1. TF ARROW encountered only minor delays, most due to the need to cross canals spanned by small bridges unable support the weight of a fully loaded HET. The trucks had to unload, cross the bridges with the Bradleys they had carried trailing behind them, and then reload on the other side.

Reed was aware he had to cross the Euphrates River after departing SCANIA. To minimize any opportunity for insurgents to delay the task force again by blowing bridges, he directed Hensler to halt at SCANIA only long enough to take on fuel and then to head northwest to secure a potential crossing site near Al Hindiyah, a small town twelve miles southeast of Karbala. The main body of TF ARROW would stop at SCANIA for fuel and one hour of sleep before moving on. The force had to head northwest for fifty miles before it reached even the Euphrates. After crossing the river and turning south, TF ARROW would be required to travel another thirty-five miles before linking up with Colonel Pittard's brigade at FOB DUKE.

When Company A entered Al Hindiyah late that evening, hundreds of Iraqis emerged from their homes to watch as its Strykers drove down the main street to the bridge. Hensler observed that the people "crowded the streets and looked like they were not the least bit afraid of us." Fanning out, the company's men secured the bridge in the center of town and a second one farther north. Hensler positioned the remainder of his men in a ruined fort and an abandoned oil storage depot atop a hill on the west bank of the river where they could observe both crossing sites.

Major O'Steen, who was still with the 3d Brigade command post outside An Najaf, had contacted Reed via satellite telephone for a regular update. Learning that the lead element of TF ARROW was en route to Al Hindiyah, he informed the brigade operations officer, Maj. Fred I. Nutter, that the Strykers would probably arrive during the predawn hours of 14 April. Since the vehicles would need refueling before they arrived at DUKE, he asked Nutter to set up a refueling site on the west bank of the Euphrates south of Karbala.

By then Lieutenant Hicks' Scout Platoon was nearing the positions occupied by Hensler's company in Al Hindiyah. As TF ARROW

approached the town, Captain Hensler transmitted a set of electronic graphics to Hicks showing the location of the bridges and his own positions. When determining a clear route with those graphics proved difficult, Hicks sent a section under S.Sgt. Benjamin J. Hanner to physically locate and mark a path through the town. Hanner succeeded in doing so without resistance. Returning to the main body, he led the Forward Battalion Command Element and the Strykers of Company B, 2d Battalion, 3d Infantry, through Al Hindiyah. At that point, Reed established satellite communications with Colonel Pittard. After a brief conversation, Reed ordered his forward command element and Captain Bryson's company to roll straight through to the refueling site established by Major Nutter. The Strykers headed south to DUKE immediately after topping off.

The scouts then returned to the main body of the task force, which had halted temporarily outside of Al Hindiyah, to pick up Captain Vogt's headquarters unit and the vehicles of the 201st Forward Support Battalion. Just as the convoy exited the western outskirts, an improvised bomb detonated near it, wounding one soldier and killing another. Captain Vogt's unit reacted to the attack; but by then it was about 0300 on the morning of 14 April and everyone was tired. After the wounded soldier was airlifted to safety, the officers on the scene decided to forego refueling until morning. The convoy repositioned a few miles east of town and then halted in place to allow vehicle drivers to get some rest before daylight.

TF ARROW's vehicles departed at dawn the next morning and quickly covered the rest of the distance to the 1st Infantry Division's refueling point. After refueling, TF ARROW's remaining elements headed south to DUKE, which they reached before noon. The troops were exhausted, but they would have little rest. Their commanders immediately began planning for operations in An Najaf. On Colonel Reed's instruction, Captain Hensler's unit remained behind to secure the crossings at Al Hindiyah until the 1st Division could arrange to cover them. Reed informed Colonel Pittard that he would like to have Hensler's company back as soon as possible. Pittard agreed, but he could not at that point spare anyone to replace the unit. Only the arrival of the 1st Division's commander, Maj. Gen. John R. S. Batiste, resolved the issue. On Reed's recommendation, Batiste decided that coalition forces could secure the bridge and instructed a Polish infantry company to do the job. Hensler and his men finally returned to ARROW on 16 April.

In the interim, the task force had already run a reconnaissance of An Najaf as part of an effort to identify potential attack routes and to

gauge local support for al-Sadr's militia. If a negotiated settlement of the crisis proved impossible, the Strykers would take part in a coordinated attack with the rest of Colonel Pittard's brigade against anticoalition forces in An Najaf. During these preliminary reconnaissance operations, Company B, 5th Battalion, 20th Infantry, seized a militiaman who had tried unsuccessfully to flee on foot from the Strykers. He was the first prisoner coalition forces captured in An Najaf.

Up to this point coalition negotiations with Muqtada al-Sadr had been influenced by reluctance to damage the historic and religiously significant Imam Ali Shrine, where the radical cleric and many of his followers had assembled. In addition, the presence of thousands of religious pilgrims made offensive operations within An Najaf risky. Along with other U.S. units, the 3d Brigade Combat Team made the best of the interval by probing al-Sadr's outer ring of defenses. During one of these operations, a group of six HMMWVs (High-Mobility Multipurpose Wheeled Vehicles, or Humvees) led by the operations officer of the 1st Battalion, 14th Infantry, fell into an ambush near a mosque while conducting a leader's reconnaissance. The insurgents allowed the vehicles to pass through their positions before establishing a roadblock to their rear. As a result, the Humvees had to take an alternate route, which led deeper into the city's center. Seeking a way out, the Americans soon became involved in a three-hour pitched battle with al-Sadr's forces and insurgents dressed as Iraqi policemen. The 3d Brigade Combat Team put TF ARROW on quick reaction status to reinforce the 1st Battalion if necessary. The beleaguered convoy fought itself free and regrouped at a nearby soccer stadium.

The engagement resulted in significant damage to the six Humvees and prompted a reconsideration of the brigade's plan. Given the presence of the Imam Ali Shrine and religious pilgrims, Pittard had originally believed that an assault on al-Sadr's headquarters would be possible only if his forces could penetrate the enemy's outer defenses before the insurgents were fully aware of what was happening. Convinced that the Bradleys of Lt. Col. Peter A. Newell's 2d Battalion, 2d Infantry, were too noisy to succeed at that, he had designated Humvee-mounted elements from the 1st Battalion, 14th Infantry, to do the job. Newell's unit would follow to provide support while TF ARROW maintained a cordon around An Najaf.

In his revised plan, Pittard replaced the Humvees with Strykers, which would be augmented by the 2d Battalion, 2d Infantry's Bradleys. Miller's 1st Battalion, 14th Infantry, would trail the lead battalions with the dual mission of reinforcing the cordon around An Najaf and providing

additional combat power for any assault that developed against al-Sadr's headquarters. As Major O'Steen would later remark: "Colonel Pittard figured out that the 5th Battalion, 20th Infantry, was more mobile than 2d Battalion, 2d Infantry, and more survivable than 1st Battalion, 14th Infantry, so we got the mission to go into the center of An Najaf to secure the mosque where al Sadr was hiding."

Operation ROAD WARRIOR: Baghdad

Fast-breaking events elsewhere overtook Pittard's planning. As the Iraqi interim government and U.S. forces continued their talks with al-Sadr, other insurgent groups were attempting to starve coalition forces out of northern Iraq by ambushing logistics convoys moving through Baghdad. As a result, many of the civilian contract firms that furnished supply convoy drivers and vehicles were declining to move without adequate protection. In response, General Sanchez detached TF ARROW from the 3d Brigade Combat Team, put it under the operational control of the 13th Corps Support Command, and gave it the mission to escort supply trucks traversing the 160-mile distance between SCANIA and ANACONDA. At that time, the 1st Battalion, 14th Infantry, received instructions to remain behind with Pittard's 3d Brigade Combat Team to continue the watch on al-Sadr.

As the Strykers retraced their route from FOB DUKE to CSC SCANIA on the morning of 17 April 2004, Major O'Steen realized how serious the situation had become. There were "miles of halted convoys" south of Baghdad, he said, all under instructions to hold in place.

Arriving at SCANIA and reporting to the 13th Corps Support Command, Colonel Reed learned that TF ARROW would begin escorting convoys at 0700 the following day. He had little problem with the hour, but he balked when he learned that the logistics staff planned to scatter individual Strykers throughout a convoy. He explained that the approach would reduce the vehicles' effectiveness by failing to make proper use of their mobility and firepower. As a compromise, he suggested that the command assign a Stryker company to each convoy, give the unit's commander free rein to configure his force as he saw fit, and reduce each grouping of logistics vehicles to a size a Stryker company could adequately protect. In addition, a convoy could no longer be treated as a simple element in a line of supply. Each had to be viewed as a distinct combat operation with readily available helicopter, air, and artillery support. The Support Command agreed but specified that the first several convoys heading north would be larger



Major Landes and 1st Lts. Patrick Callahan and William L. Holbrook (left to right) from TF ARROW supervise preparations for a logistics convoy bound for LSA ANACONDA.

than Reed desired to make up for shortfalls that had occurred because of the recent lull.

TF ARROW proved well suited to its new role. The Strykers provided a highly mobile, reliable, armor-protected, lethal counter to the deadly ambushes against the coalition's convoys. By contrast, the M2 Bradleys and M1 Abrams tanks of the 1st Cavalry Division, the unit responsible for Baghdad, were unable to provide the same sort of continuous escort because they suffered maintenance problems with their tracks when forced to travel lengthy distances repeatedly. Given the limited number of armed helicopters available, it was also impractical to rely too heavily on rotary-wing aircraft as continuous escorts. Always in demand, helicopter support was sometimes less responsive than desired, allowing the insurgents to strike and withdraw before the gunships could arrive.

Assuming that his Strykers would be escorting convoys over a lengthy period of time, Reed divided his force into three standing teams. Two companies would rotate escort duties, with one accompanying

loaded trucks north while the other guarded empty vehicles returning south. A third element composed of engineers and infantry would clear obstacles from the route. Depending on the amount of civilian traffic and the strength of the enemy's resistance, Reed figured that each trip between SCANIA and ANACONDA would require at least four but sometimes as many as ten hours. He calculated that he could achieve adequate coverage if he paired a Stryker platoon of four vehicles with a serial of fifteen trucks. Since one company could thus handle four of these serials at a time, the approach imposed a limit of sixty vehicles each way per day. If trouble occurred, Reed had access to on-call air support and helicopter gunship coverage.

The first Stryker escort mission took place on 18 April. As the convoy moved north from SCANIA, the soldiers of TF ARROW could see spent shell casings and the burned-out hulks of trucks scattered along the road. The convoy made contact with the enemy soon after entering the western outskirts of Baghdad. Coming abreast of the Abu Ghraib prison, the lead Stryker encountered a roadside bomb and then began to receive RPG and small-arms fire from a building that brazenly flew an Islamic resistance militia flag. The attack was a big mistake for the enemy, for a 1st Cavalry Division strongpoint was nearby. Moments later two M1A2 Abrams tanks arrived. As soon as they had a clear field of fire, they silenced the enemy's weapons with 120-mm. high-explosive rounds and automatic-weapons fire. The remainder of the convoy's trip north was uneventful. The trucks made it safely to ANACONDA.

The digital communications suite each Stryker possessed proved invaluable during this duty, permitting company commanders to monitor the progress of each convoy and to coordinate its passage with friendly units responsible for securing key intersections along the route. One officer observed, "even when non-digitized vehicles are integrated within your unit, you can tell where everyone is located because we would employ digitized vehicles at the head of the convoy, at the tail end, and interspersed throughout in order to provide coverage of the entire convoy."

For two months, TF ARROW shepherded contractors' supply trucks and numerous military vehicles between CSC SCANIA and LSA ANACONDA. Enemy contact was frequent during that time. During the first five days of the effort, the 5th Battalion, 20th Infantry, recorded ten attacks. Each time an ambush occurred, a Stryker commander marked the enemy's location on his computer system, which automatically transmitted data to the rest of the escort. The system allowed the Americans to coordinate an effective response in the shortest possible time.



Task Force ARROW Strykers and cargo trucks prepare to make the trip between CSC SCANIA and LSA ANACONDA.

The Strykers soon made their presence felt. They proved so effective that the insurgents began targeting them rather than the vehicles they were escorting. On 17 May 2004, a car carrying a suicide bomber crossed a highway median and rammed head-on into a Stryker belonging to Company B, 2d Battalion, 3d Infantry. The explosion damaged two wheels and the front periscope of the Stryker, but the driver and the vehicle's commander were only slightly injured. The force of the explosion had been so strong that the engine block of the destroyed car had landed several hundred yards from the site of the attack.

The number of ambushes against Stryker-escorted convoys decreased steadily between 29 May and 3 June, with only one insurgent attack occurring. In all, over two months, TF ARROW drove 26,550 miles in pursuit of its mission and escorted 8,025 supply vehicles while maintaining a 96 percent operational readiness rate. It lost only four logistics trucks to ambushes during this time, a marked contrast to the eighty-eight trucks coalition forces lost prior to its arrival.

The task force relinquished its duties to the Strykers of the 1st Squadron, 14th Cavalry, on 16 June 2004. That unit was also successful, protecting 3,900 contractor-manned logistics vehicles moving between SCANIA and ANACONDA with minimal losses before passing back to the control of TF OLYMPIA in early August.

Tall Afar, Iraq

The Stryker Brigade's area of operations remained active while TF ARROW pursued its mission along the stretch of Highway 1 connecting SCANIA and ANACONDA. Between 11 April and 1 June, it conducted cordon and knock operations in Mosul that resulted in the arrests of hundreds of suspected insurgents and the capture of tons of weapons and ammunition. In response, the enemy launched a series of indirect-fire attacks during April that targeted American bases ringing the city and in May began to detonate improvised mines and roadside bombs in growing numbers against U.S. convoys. A total of eleven Strykers took hits from these devices, but damage was light. The vehicles generally suffered a flat tire or two, and at most a few crew members received minor wounds. The remainder of the brigade suffered some two dozen additional battle losses from a variety of causes.

The evolving tactics of the insurgents in Mosul elicited the Stryker Brigade's adoption of new countermeasures. For example, the employment of increasingly sophisticated improvised explosives by the enemy prompted Lt. Col. Dennis M. Thompson's 296th Brigade Support Battalion to resort to new tactics and to adopt new equipment to carry out its mission. The unit acquired armor kits for critical vehicles and fabricated steel plates for others. It also experimented with varying mixes of weapons to determine the best defensive armament for a convoy; provided headsets to its gunners to allow them to hear commands from inside their vehicles; and supplied at-risk personnel with riot-style face shields for extra protection from flying metal fragments. In addition to beefing up its own vehicles, the 296th furnished the same service to other units within the brigade.

TF ARROW left ANACONDA for its new home at FOB FULDA near Tall Afar airfield, soon renamed FOB SYKES, on 17 June. Once there, ARROW returned the companies from the 2d Battalion, 3d Infantry, and the 1st Battalion, 23d Infantry, to their commands while receiving its own Companies A and C in return. Its new mission centered on the city of Tall Afar, a way station between Syria and Mosul for weapons smugglers and a hub of insurgent activity. Since January 2004 the sole coalition presence within the city, Captain Beaty's Company C, 5th Battalion, 20th Infantry, had been subjected to almost daily attacks that resulted in one U.S. soldier killed and twenty-nine wounded. Shortly before the 5th Battalion, 20th Infantry's return, Colonel Rounds decided that Beaty's unit would relocate to a new base on the outskirts of the city and reduce the number of its patrols until additional forces were available.

Not surprisingly, the situation within Tall Afar deteriorated further, not only because the Americans were keeping a lower profile but also because the insurgency was growing stronger. With coalition convoys passing through the city taking fire on a daily basis, TF OLYMPIA sought the return of TF ARROW in order to reestablish a significant coalition presence. In response, the 5th Battalion, 20th Infantry, instituted a series of reconnaissance and intelligence probes within the city to identify key insurgent supporters and enemy logistical nodes. Capitalizing on the information it gathered, the battalion began cordon and knock operations on 1 July 2004, seizing a number of insurgents and many components useful in the construction of remotely detonated bombs.

The Americans' success was marred by an incident on 14 July: a Turkish tanker truck forced a Stryker from Company B, 5th Battalion, 20th Infantry, off a road near FOB SYKES. Two Americans were killed and nine injured when the Stryker overturned. The following day another Stryker from Company C, 2d Battalion, 3d Infantry, suffered a similar fate when it swerved to avoid being rammed by another Turkish fuel truck. Although three Americans were injured in the incident, this time no one was killed.

Late in July 2004 TF OLYMPIA directed the Stryker Brigade to begin planning for a series of large-scale operations within Tall Afar to keep the insurgency off balance throughout the western portion of Ninawa Province. The first of these efforts began on 1 August, with two companies each from the 1st Battalion, 23d Infantry, and the 2d Battalion, 3d Infantry, aided by two companies from the 5th Battalion, 20th Infantry, and six companies from the Iraqi National Guard. Although the force conducted a thorough sweep of Tall Afar, the operation achieved only limited results because the enemy chose to avoid confrontation. The situation changed dramatically several days later.

On 4 August 2004, 2d Lt. Ryan J. Nystrom's Mobile Gun System platoon from Company C, 5th Battalion, 20th Infantry, was escorting a logistics convoy on Highway 2 between Mosul and Tall Afar. Departing from SYKES at 1000, the group included twenty-three HETS, fifteen vehicles from the 296th Brigade Support Battalion, and several armed trucks. When the convoy entered Mosul's northern outskirts, its lead element encountered a police checkpoint that significantly slowed civilian traffic. Negotiating its way through this obstacle, it passed through a market in the northwestern section of town, where pedestrians and heavy traffic again forced it to slow. As the lead Stryker passed broadside to the first alley beyond the marketplace, an antitank rocket struck it on the

right front; then the entire intersection erupted in small-arms and RPG fire. Passing through the ambush, the convoy returned fire but kept moving only to encounter a roadblock of fifty-gallon drums and tires on the southbound lanes of the highway.

Nystrom immediately ordered the lead vehicles to cross the median and continue south. As the first Stryker did so, either an RPG or roadside bomb hit it on the left. The vehicle continued moving out of the kill zone, but moments later a large explosion occurred at an intersection immediately to its rear, disabling two of the HETS the Stryker was escorting. Lieutenant Nystrom issued instructions for all Strykers in the convoy to converge on the intersection to recover equipment from the disabled vehicles and to prevent their crews from falling into insurgent hands. The lead Stryker returned to the intersection, engaging targets on the way until it reached the scene. Other Strykers dispersed throughout the convoy raced toward the intersection as well. The rest of the convoy continued moving along Highway 2.

When Nystrom reached the scene of the fight, he ordered his infantrymen to dismount their Strykers and to begin searching for the soldiers from the disabled transports. He later learned that the convoy had already rescued the men as it passed, but at the time Nystrom had no idea whether insurgents had snatched the missing personnel or if they were fighting dismounted somewhere.

The Strykers remained in place for forty-five minutes, until the Brigade Quick Reaction Force reached the scene. During that time, the enemy fired from thirty to forty RPGs at them, but none of the missiles penetrated their slat armor. The volume of incoming fire continued to grow. Sensing that the enemy had begun maneuvering closer in an attempt to tie down his force by destroying a Stryker, Nystrom instructed his platoon to relocate its vehicles in a manner that would make them more difficult to hit. The Strykers increased their rates of fire and began periodic shifts to new positions.

The reaction force, a company from the 1st Battalion, 23d Infantry, arrived shortly thereafter and came immediately under fire. The engagement continued for six hours, until both damaged vehicles were recovered and all personnel accounted for. Friendly forces suffered twelve wounded. Estimates placed enemy losses at more than fifty killed and an undetermined number of wounded. American patrols passing through that area were discovering the bodies of anticoalition fighters for days following the battle.

Despite heavy casualties in the battle against Nystrom's platoon, the insurgents decided to continue engaging coalition forces in open combat.



Colonel Reed discusses security issues with the police chief of Tall Afar.

Their next attempt came on 4 September, when Captain Mason’s Company B, accompanied by the battalion’s scouts, newly under the command of Lieutenant McChrystal, conducted the first of two cordon and knock operations within Tall Afar.

Reed’s tactical operations center accompanied the group, along with a section from Capt. Luther R. Johnson’s Troop A, 1st Squadron, 14th Cavalry, which would operate as the battalion reserve. Soldiers from the 102d Iraqi National Guard Battalion supported the Americans. A pair of Kiowa Warrior helicopters from the 3d Squadron, 17th Cavalry, orbited overhead along with an unmanned aerial vehicle.

The operation began at 0730, when McChrystal’s Scout Platoon departed its base. Using side streets to avoid detection, the group arrived at its first target on time and established a perimeter. Entering a building at 0800, the troops arrested four suspected insurgents. They then detained two other individuals who had attempted to flee the area. All had gone well to that point; but then, alerted by the Americans’ arrival, insurgents in a nearby house began firing RPGs. A sniper team accompanying the scouts responded, wounding one enemy who was repositioning.

Operating 1,500 yards from the scouts, Company B encountered similar circumstances when it carried out the second of the two raids. Although Captain Mason's men established a perimeter around their objective without detection at 0759, a search of the house produced no suspects, contraband, or weapons. Instead, the troops detained eight Iraqis from the immediate area for further questioning. The situation changed, however, as they were preparing to leave. Insurgents nearby fired an RPG that hit near a truck carrying Iraqi soldiers, killing one and wounding three. The small force soon found itself under increasingly heavy fire.

With Company B fully involved in evacuating the wounded Iraqi soldiers, Reed ordered the Scout Platoon and cavalry section to consolidate at his location rather than risk isolation by the insurgents. During the platoon's movement to the linkup, the enemy fired at least four RPGs at its vehicles. The Strykers from Troop A meanwhile came under heavy small-arms fire and recorded a near miss from another RPG.

The increasing enemy activity prompted the two Kiowa Warriors accompanying the operation to fly low to better see the narrow alleys crisscrossing the area. As the scouts and Troop A neared Reed's position, an RPG downed one of the helicopters. Reed directed the downed pilots to remain with their aircraft until his command element, McChrystal's scouts, or Troop A reached them. At that point, Mason's unit and the Iraqi detachment accompanying it were still involved in the initial firefight.

Reed, the scouts, and the cavalry section all arrived at the crash site within a few minutes. To put some distance between themselves and their smoldering helicopter, the pilots had moved behind a nearby rock wall. Both had been injured, one severely. The scouts dismounted, immediately began securing the area, and loaded the two pilots into a medical evacuation vehicle that had accompanied the cavalry section. Reed sent Sergeant Hanner and several members of the Scout Platoon to secure the downed aircraft's sensitive items.

The insurgents celebrated their success in bringing down the aircraft with a gale of steadily mounting fire. Concerned that an attack was building, Reed instructed McChrystal to secure all terrain dominating the crash site and hold off the enemy until reinforcements arrived. The Strykers belonging to the section from the 1st Squadron, 14th Cavalry, were to assist. When Reed's battalion operations officer, Maj. Harold D. Baker, reported that a medical evacuation helicopter was standing by to pick up the wounded pilots, he directed Company B and the Iraqi detachment to relocate to his location.

As Company B made its way to the crash site, Baker learned from the battalion command post at SYKES that a crash recovery team was

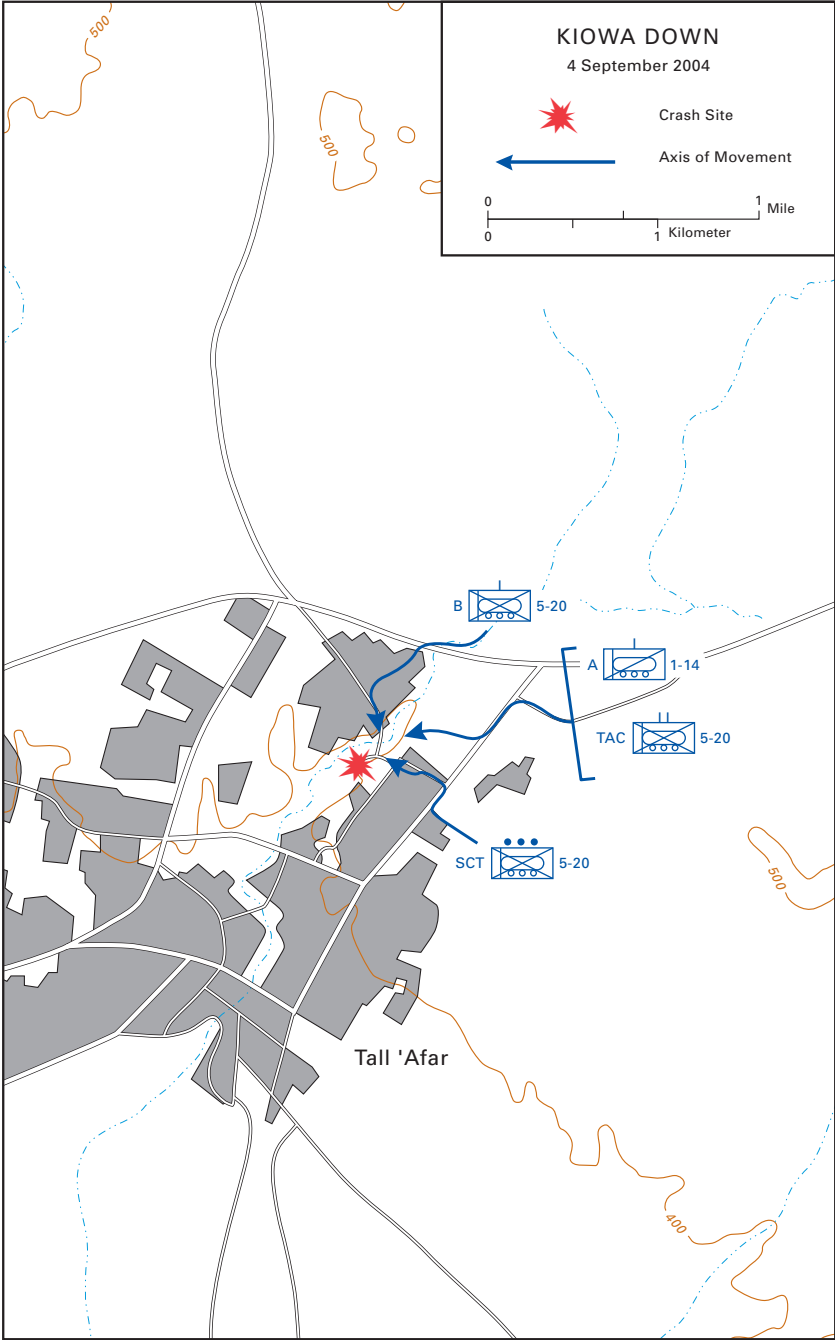
assembling. To aid in the effort, the battalion adjutant, Captain Rowland, and the battalion logistics officer, Capt. Ellis H. Barnes IV, had begun collecting whatever assets they could find: a wrecker, a flatbed truck, and a Stryker platoon from Company C. All settled in to await a go-ahead.

As the team prepared, Colonel Reed and Sergeant Hanner moved forward to take a firsthand look. Linking up with the scouts, Reed learned from McChrystal that his men had encountered problems trying to secure several buildings on the west side of the crash site's perimeter. (*See Map 4.*) The scouts were receiving small-arms fire down every alleyway, making it impossible for them to secure good positions without suffering losses. Both officers realized that the scouts would need reinforcements if they were to hold on for any length of time.

Following the meeting, McChrystal moved off in the direction of his platoon sergeant, Sfc. Michael J. Keyes, to begin to improve his unit's defenses. The scouts were all aware that this would be a difficult fight until Company B arrived. Sustained bursts of enemy assault-rifle and machine-gun fire were erupting from the west. The dismounted scouts returned burst for burst, using so much ammunition that for the first time in ten months they found themselves sending back to their Strykers for more.

Leaving Sergeant Hanner with the scouts, Reed returned to his command Stryker where he noticed that Company B had advanced to within 300 yards of his position. The vehicle's FBCB2 screen, however, appeared to indicate that a gap had opened among the approaching Strykers. Seconds later, Captain Mason informed him that one of the unit's armored vehicles had lost its transmission to an RPG but had been able to roll beyond the ambush before coming to a halt. Glancing in the direction of Company B, Reed could see a dark column of smoke beginning to rise. At that moment, Hanner broke into his radio conversation with Mason to report that enemy fire was increasing and that he urgently needed reinforcement.

While Company B secured a defensive perimeter around the damaged Stryker, Major Baker passed a message to Colonel Reed from the command post at SYKES. The battalion intelligence section's unmanned aerial vehicle operators were watching twenty newly arriving insurgents unload machine guns and RPG launchers from civilian vehicles parked near the crash site. The enemy seemed to be using a sheltered area between the scouts and the stalled Strykers to prepare for an assault on the eastern side of the company's perimeter. With most of McChrystal's men focusing on an enemy force approaching from the west, there was a real chance that the insurgents might overwhelm the cavalry section from the east.



Map 4

As incoming rocket and machine-gun fire increased, Baker informed Reed that two Air Force F-16 fighter-bombers were in position to deliver support. The jets made a low-level pass over the downed helicopter in the hope that their appearance alone would ease enemy pressure. When the insurgents showed no sign of backing off, Reed decided his best course was an air strike.

Meanwhile, except for one platoon that was pinned down by enemy fire, Captain Mason's unit formed a temporary defensive perimeter around the damaged Stryker. Reed asked the Joint Tactical Air Controller what the blast radius was for the bombs the orbiting fighters carried. The controller replied that it was a minimum of 200 yards in open terrain using a delayed fuse setting. Reed then asked Mason how far his company was from the plume of rising smoke. Mason explained that the smoke was not coming from the damaged Stryker but from a flaming civilian automobile some 300 yards from his nearest element. Using the smoke plume as a guide, Reed fixed the target's position at 300 yards due west of the center of the Scout Platoon's location and 300 yards due north of Company B. Reed passed the information to Major Baker, who coordinated the precise aiming point with the controller. As the jets lined up on the target, the troops on the ground received a three-minute warning. Within seconds of the bomb's release, a wall of dark smoke and dirt rose well above the skyline. The volume of small-arms fire in the vicinity of Company B decreased significantly. Holding in place for a moment or two, Mason gave his company the order to move out.

Clear of enemy fire, Company B reached Reed's location within a few minutes. As each of its Strykers dropped its rear ramp, Mason's men scrambled in search of rooftop positions that would allow them to dominate all approaches to the crash site. Meanwhile, the members of the Iraqi detachment moved off to reinforce the 1st Squadron, 14th Cavalry's position. Within ten minutes of the arrival of Company B and the Iraqis, however, the insurgents had regrouped enough to renew their assault against the coalition perimeter. Colonel Reed recounted what happened next:

The sound of fighting could be heard rising in volume first to the South, then from the West, and then from the North.... With the Company B Commander and his executive officer, Lieutenant Hicks, now on the scene, they began to close down the perimeter and tighten up all avenues of approach. The tide of the fight was changing. The enemy would run up an alley, fire an RPG or a machine gun, and be knocked out by a TOW, AT4 anti-tank rocket, Mk19 grenade launcher or sniper fire....



Kiowa Warrior shortly after recovery from Tall Afar

The boys performed brilliantly in their fire distribution, and this was important because we did not know how long it was going to take to pull out this helicopter.

The insurgents replied with an accurate barrage of 60-mm. mortar rounds that “walked” along a nearby road where several of the 1st Squadron, 14th Cavalry’s Strykers were parked. A second volley put a round near the medical evacuation vehicle holding the wounded pilots. No one was injured by the blasts, but three tires on the medical Stryker were flattened. The barrage prompted everyone in the vicinity of the impact area to begin relocating their vehicles. The Company B Mobile Gun System platoon sergeant, Sfc. Michael S. Archey, was wounded by a third volley of mortar rounds while guiding his TOW Stryker to a new location.

Although intermittent fire continued, the situation had stabilized enough by 1035 for a helicopter recovery team to arrive and to go to work. Its personnel removed three of the aircraft’s four main rotor blades and then lifted the helicopter slightly to disconnect its rocket pods. “I couldn’t

believe how prepared they were to recover this aircraft,” Reed remarked. “It looked as if they had rehearsed the task beforehand. I thought for sure they were going to run into problems, but recovery went smoothly.”

The upsurge in activity within the perimeter surrounding the downed aircraft triggered another mortar barrage. Several rounds exploded nearby, wounding two Iraqi soldiers and shaking up the cavalry section. By this time Company B had repositioned a pair of TOW Strykers in an attempt to use the vehicles’ high-powered optics to locate the enemy’s firing position. Although they were unable to spot the tube, the surviving Kiowa Warrior orbiting overhead picked up the weapon’s flash when it fired and passed the information to Reed. After conferring with Major Baker, the Tactical Air Controller directed the F-16s to make a strafing run—the mortar fire stopped.

With the weapon silenced, just fifty-five minutes from the time of arrival the recovery team lifted the damaged Kiowa onto the flatbed truck and strapped it down. Reed and his men then mounted up and returned to SYKES without further incident. In addition to the injured pilots, five other Americans and two more Iraqi soldiers were wounded during the fight. Reed estimated that the insurgents had suffered over 100 casualties.

The fighting that day invited comparison to a similar event during October 1993 in Mogadishu, Somalia, when U.S. personnel attempted to rescue the crews of two downed Black Hawk helicopters. Unlike U.S. forces in Mogadishu, however, the 5th Battalion, 20th Infantry, possessed the organic mobility and armor protection that permitted it to arrive at the crash site before the enemy, treat the injured personnel at the location, and regain the initiative early in the fight. The Stryker unit then kept its edge by maintaining effective communications with supporting joint assets and by gaining fire superiority over its opponents. Although the enemy attempted to use the downing of the Kiowa to gain the upper hand, in the end he experienced only a costly defeat.

The ambush and the fight for the downed helicopter that followed it served notice on TF OLYMPIA that anticoalition strength was on the rise in northwestern Iraq. Within Tall Afar, the enemy began preparing earthen mounds at every intersection in anticipation of springing a massive coordinated ambush on the next coalition force that tried to move through the city. Intent on defeating the insurgents before they could finish their preparations, the Stryker Brigade began gathering intelligence and repositioning forces for a determined push into the city.

To that end, the bulk of 1st Battalion, 23d Infantry, departed FOB MAREZ near Mosul and took station just outside Tall Afar. Then, on 9

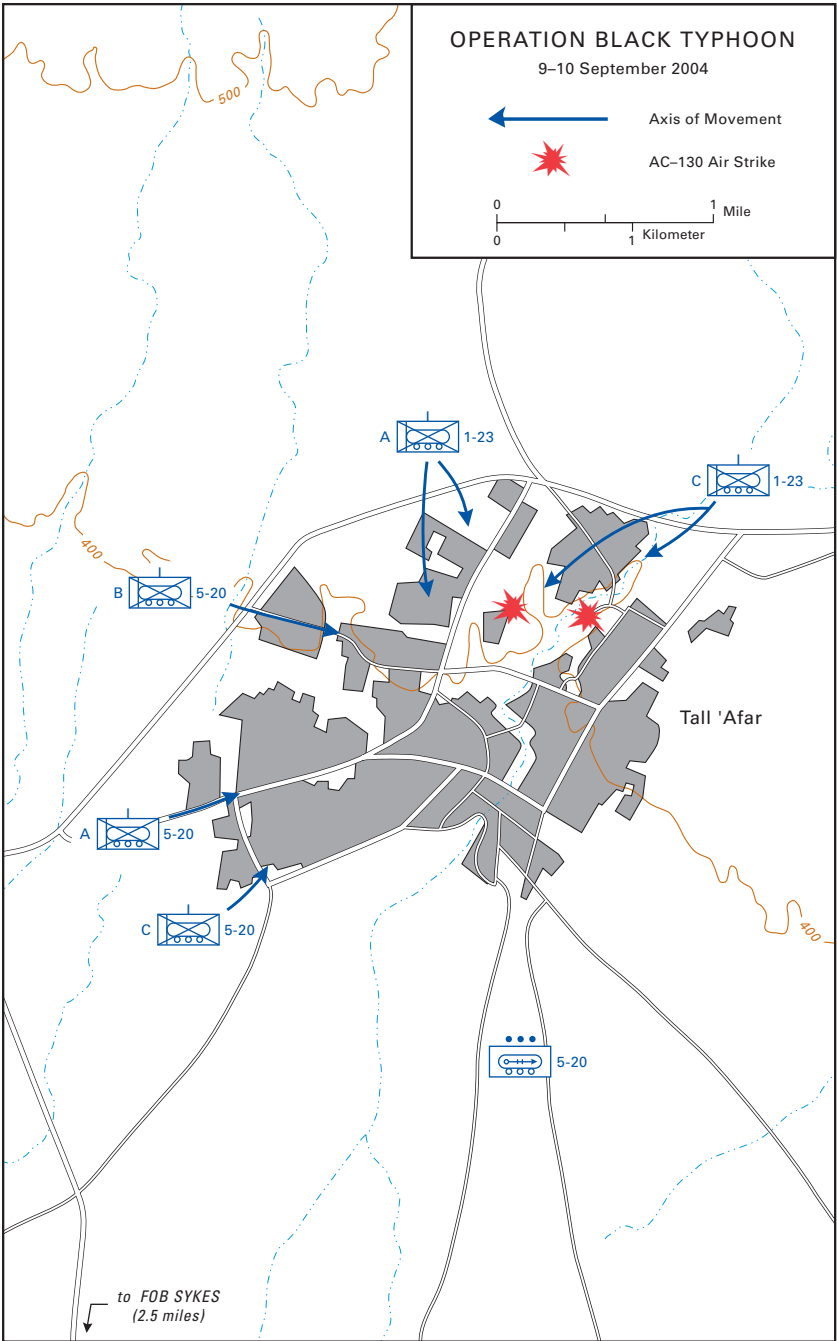
September 2004, the 5th Battalion, 20th Infantry, along with elements of the 1st Battalion, 23d Infantry, launched Operation BLACK TYPHOON. (Map 5) The 5th Battalion's 120-mm. Mortar Platoon kicked off the effort, leaving SYKES under cover of darkness for a firing location two miles south of Tall Afar. At 0200 the platoon laid down a withering barrage against five of the insurgents' reinforced fighting positions. With high explosives saturating each target, the Strykers of the 5th Battalion's Companies A, B, and C departed SYKES for their attack positions.

Between 0130 and 0247 an Air Force AC-130 gunship circling overhead engaged five separate targets on the eastern side of town. It also took on two defensive positions and a group of approximately twenty-five insurgents attempting to maneuver against the leading elements of Lt. Col. William T. James' 1st Battalion, 23d Infantry, which was moving into attack position. The gunship killed or wounded at least fifty-five of the enemy.

By 0330 the 5th Battalion's companies had reached the western outskirts of Tall Afar. As they did, they encountered light resistance, mostly intermittent small-arms and mortar fire. To the south, only Captain Beaty's Company C encountered opposition from insurgents defending a fortified position. Returning fire, the unit killed three.

The second phase of the operation unfolded when Capt. Matthew F. Dabkowski's Company A of the 5th Battalion, 20th Infantry, worked its way onto high ground west of the city without being detected. By 0600 Captain Mason's Company B had occupied heights to the northwest of the city and began tying in with Company A's left flank. As Mason's men moved into position, they began to receive increasing RPG and small-arms fire. They responded with machine-gun, rifle, and sniper fire of their own, silencing each target that arose. At this time the insurgents launched an assault on Company A. Coordinating fire with Company B, Dabkowski's men created a killing zone that repelled every enemy attempt to approach their position.

In the face of the 5th Battalion's deadly fire, the insurgents retreated east to the edge of town. Shifting focus in an attempt to disrupt the American assault, seven of them occupied a pair of houses directly opposite Captain Mason's Company B. Emerging from one building, they would run to a nearby street corner, engage the Americans, and then sprint to the other to reload. Deciding that the approaches to the two positions were too exposed to risk a direct assault, Reed turned to his air support. Moments later, an F-16 dropped a precision-guided bomb that killed the seven insurgents and set off an ammunition cache in the second building.



Map 5

On the northeast side of Tall Afar, Companies A and C of the 1st Battalion, 23d Infantry, also found themselves engaging enemy forces. Although the two came under only sporadic enemy fire as they moved deeper into the city, their commanders decided that it was aimed accurately enough to warrant a degree of caution. The 3d Platoon of Captain Hensler's Company A soon came under heavy fire from a fortification the insurgents had emplaced near the Al Hudah mosque. The enemy had apparently chosen the location in the belief the Americans would hesitate to engage even a legitimate military target next to a Muslim house of worship.

Hensler's 3d Platoon laid down covering fire while his other platoons maneuvered to take the position. With the volume of fire directed at his men increasing, however, the captain called for an air strike and calculated a point of impact that would minimize collateral damage. A laser-guided 500-lb. bomb finished the job, destroying the enemy position without damaging the mosque. The strike killed seven insurgents.

Hensler's 1st and 2d Platoons resumed their advance shortly thereafter but were soon engaged by insurgents firing from a barricaded police station. In response to a call for fire support, Kiowa Warriors from the 3d Squadron, 17th Cavalry, scored a direct hit on the building with a Hellfire missile. The helicopters then fired a second missile at a group of insurgents attempting to flee the building. Despite this support, the two platoons became the targets of increasing small-arms fire and accurate mortar fire. Hensler's 3d Platoon attempted to locate and suppress the mortar position, but its efforts were unsuccessful. The Kiowas and a platoon of TOW-equipped Strykers also responded by launching missiles against known enemy positions, but the incoming fire remained heavy. One of the helicopters finally found the mortar, but repeated gun and rocket attacks failed to silence it. In the end Hensler decided an air strike was again necessary. Three 500-pound laser-guided bombs eliminated not only the mortar but also a nearby heavy machine-gun position.

With a foothold established in the city, civil affairs units from TF OLYMPIA began evacuating civilians. By early afternoon the 5th Battalion, 20th Infantry, was firmly in control of the southwestern portion of Tall Afar; but the 1st Battalion, 23d Infantry, continued to meet resistance as it secured the eastern portion of the city. The fighting finally subsided at 1600. Reed's 5th Battalion, 20th Infantry, took up temporary defensive positions within Tall Afar while James' 1st Battalion, 23d Infantry, returned to MAREZ. A total of 102 insurgents were killed during the engagement, while U.S. forces suffered no fatal casualties.



A soldier of Company C, 5th Battalion, 20th Infantry, fires his M240B machine gun at insurgents during combat operations in Tall Afar.

At dawn on 10 September U.S. troops began setting up checkpoints at all major intersections on the outskirts of Tall Afar. The hope was to keep insurgents disguised as local residents from reinforcing the enemy in the city. Removed from their homes, the people of the area were not permitted to return for the next three days so Reed's battalion could scour the city for insurgent stragglers and hidden weapons. On 18 September teams from the 416th Civil Affairs Battalion and 133d Engineer Battalion began surveying and repairing the damage the fighting had caused.

Following BLACK TYPHOON, Reed dispatched Captain Beaty's Company C, 5th Battalion, 20th Infantry, to investigate several of the villages surrounding Tall Afar. Beaty's men detained forty-nine insurgents, several of whom were wounded, and confiscated weapons and money. An enemy response was not long in coming. On 14 September insurgents in Mosul riding in a speeding automobile sprayed a dismounted patrol from Troop B, 1st Squadron, 14th Cavalry, with automatic-weapons fire at pointblank range. One American was killed and six others wounded. Later that evening small-arms fire from a passing car engaged a patrol

from Company A, 2d Battalion, 3d Infantry. One American was slightly wounded. The next night the enemy fired thirty-five mortar rounds without effect at FOB AGGIES near Hammam al Alil. Responding to the attack, a Kiowa located two 60-mm. mortar tubes and a parked truck. It destroyed the vehicle and then guided a patrol from the 1st Squadron, 14th Cavalry, to the site. The unit's troopers took possession of both mortars and secured several rounds of ammunition lying nearby.

Mosul, Iraq

The fighting in mid-September 2004 at Tall Afar was the last significant combat action for the Stryker Brigade in Iraq, but the enemy in Mosul remained extremely active. The insurgents aimed most of their attacks at the Iraqi security forces and police, and they continued their attempts to inflict casualties on the brigade whenever they sensed an opportunity to do so. On 27 September separate roadside bomb attacks resulted in the destruction of a Stryker from Company C, 1st Battalion, 23d Infantry, and damage to another belonging to the 1st Squadron, 14th Cavalry. One American was slightly wounded. On the following day, Company A, 2d Battalion, 3d Infantry, suffered six wounded when a roadside bomb damaged a Stryker.

On 30 September the 5th Battalion, 20th Infantry's Scout Platoon was subjected to a coordinated assault in Mosul. Five U.S. soldiers were wounded and two Strykers damaged by a roadside bomb that served as the trigger to an ambush. The scouts killed two insurgents who were shooting at them from behind a wall; fired on a civilian car attempting to flee the scene, killing four more rebels; and succeeded in recovering their damaged vehicles and evacuating casualties without further incident. In all, during September, in addition to the losses inflicted on the enemy during the failed ambush, the brigade's soldiers killed four other insurgents, wounded a fifth, detained 114 suspects, and captured significant quantities of arms and ammunition.

Relief in Place

Toward the end of September Colonel Rounds and his soldiers began preparing to transfer authority at Mosul to Col. Robert B. Brown's incoming 1st Brigade, 25th Infantry Division, another Stryker unit. Even as they did, however, Multi-National Force–Iraq, which succeeded CJTF–7 in May 2004, called upon the unique capabilities of the Strykers. During the first week of October 2004, a task force consisting of



A Stryker from the 1st Battalion, 5th Infantry, heads toward Mosul after searching the countryside for insurgents. The 25th Infantry Division unit assumed responsibility for a portion of the 3d Brigade, 2d Infantry Division's former area of operations.

elements from Colonel James' 1st Battalion, 23d Infantry, and Troop C, 1st Squadron, 14th Cavalry, was dispatched to Babil Province, just south of Baghdad, to assist the I Marine Expeditionary Force. Colonel James' unit was to secure the Jurf Kas Sukr Bridge spanning the Euphrates River, a favored corridor for insurgents moving into and out of key cities, including Baghdad and Fallujah. Once it had control of the bridge, it was to begin searching for enemy arms caches hidden throughout Babil Province.

In sharp contrast to the urban areas the 1st Battalion, 23d Infantry, had previously operated in, this region consisted of open desert dotted with small towns. The adaptability of the Stryker soldiers and the mobility of their vehicles made them a highly visible presence in the region, and they uncovered two large enemy arms caches. The flexibility of the brigade was further demonstrated by the fact that even as the 1st Battalion, 23d Infantry, aided the marines, the remaining units continued their preparations to redeploy to Fort Lewis.

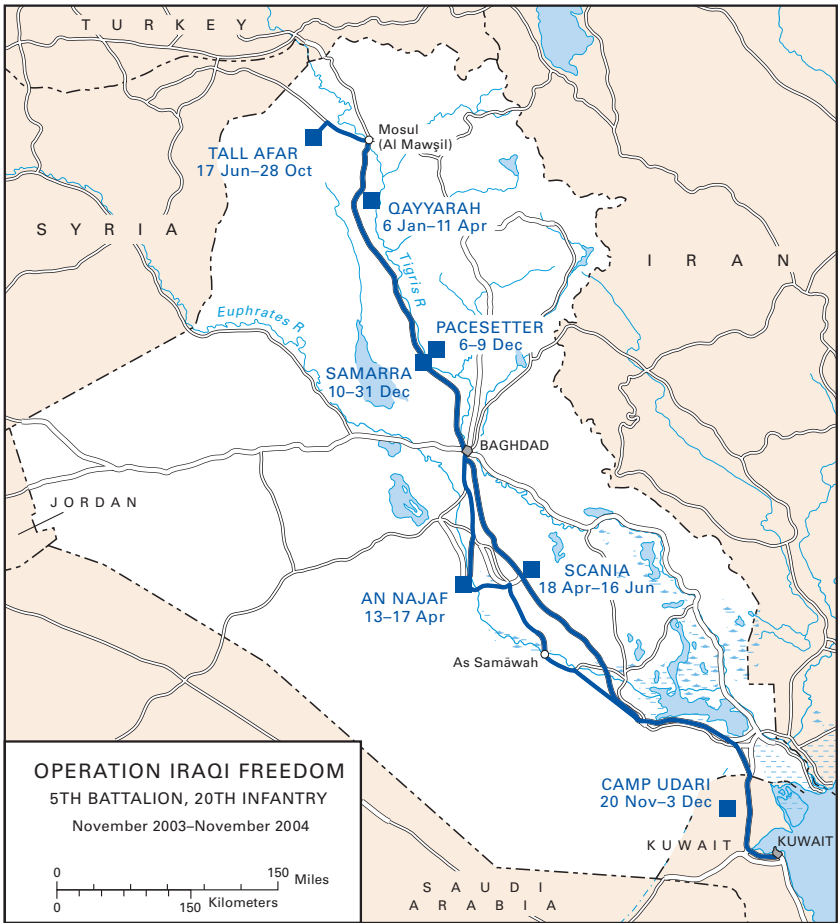


Soldiers pull local security during a search for insurgents west of Mosul.

The soldiers of the brigade's main body began arriving back in the United States on 22 October 2004, aware that they had accomplished a number of extremely difficult tasks during their year-long deployment to Iraq. They had been the first troops to employ the Stryker in combat. As a result, they and their officers had deliberately concentrated on developing the most effective ways to employ the vehicle in combat so they could pass them on to the Stryker units that would take their place. "We literally wrote the book," 1st Lt. Nicholas J. Kardonsky avowed, "on how to use the vehicle in combat."

Not only had the brigade documented tactical lessons for future use, it had also cultivated a reputation within CJTF-7 as a highly mobile infantry force capable of responding rapidly and effectively to changing operational conditions. The command and its successor had made use of this unique capability again and again, calling upon the Stryker Brigade to take the fight to the enemy not only in northwestern Iraq but also in Samarra, Balad, An Najaf, Baghdad, and Babil Province. As the unit had conducted those operations, it had also trained Iraqi National Guard units and had carried out numerous civic action programs.

The Stryker had played a substantial role in the brigade's success. The 5th Battalion, 20th Infantry's operations officer, Major Baker, who replaced Major O'Steen when he moved up to become battalion executive officer,



Map 6

summed up its unique capabilities. Bradleys “could not have accomplished the mission in as large an area,” he said. “They were not fast enough, they had a much larger logistical tail, and they were not mechanically reliable when traveling great distances.... [Map 6] We would have had comparable mobility if we had been equipped with Humvees, but they were inadequate in terms of protection. The soldiers gained a lot of confidence in their vehicles when they realized they had a platform that could take a lot of punishment. It represents just the right mix of light and heavy mentality, providing the Army with a full spectrum of capabilities.”

At the conclusion of their deployment to Iraq, the soldiers of the Stryker Brigade could reflect with satisfaction on their time in combat. They performed remarkably well in Samarra and Mosul, quelled the violent streets of Baghdad, fought and won in Tall Afar. In the process, they earned the nickname Ghost Soldiers from the enemy, a tribute to the relative silence that accompanied their rubber-tired Stryker on the battlefield. Iraq was the first battlefield for the new brigade; there would doubtless be other tests in the future.

Analysis

At the end of the Cold War in 1991, the Chief of Staff of the Army, General Sullivan, understood that the future held many dangers and that the Army would have to transform itself to fit a new strategic mold. Sullivan's successor, General Reimer, expanded upon the concept. Concerned that the Army's combat units relied solely upon vehicles such as the M1 Abrams tank and the M2 Bradley fighting vehicle that were too heavy for rapid deployment, Reimer took the first steps to create medium-weight units capable not only of fighting traditional wars but also of responding quickly and effectively to smaller emergencies.

The job of completing this effort fell to Reimer's successor, General Shinseki. Since no one could predict with certainty where conflicts would occur or how extensive they would be, the general sought to create a force that would be easy to deploy and supply anywhere in the world and as lethal as in the past. Able to meet a broad range of challenges, it would be versatile enough to shift from irregular to conventional warfare should the need arise. To achieve these goals, Shinseki's planners decided to equip light infantry units with medium-weight armored systems. The reconfigured forces would possess improved logistical capabilities and the latest communications and intelligence-gathering devices. Their troops would receive arms and equipment designed to enhance their effectiveness in combat.

When the War on Terror began in September 2001, the Army found that to respond effectively it would have to accelerate its efforts to field medium-weight units. This involved much more than downsizing heavily armed brigade combat teams or reequipping light infantry units with medium-weight vehicles. Doctrinal changes also had to occur, particularly the creation of a basic unit that commanders could deploy quickly and customize to meet particular problems. Since World War I the service's building block had been the division. Brigades, regiments, and battalions had been divisional components, and field armies and corps had been groups of divisions and their supporting organizations. In the new Army of 2001, however, the ideal component would be the brigade, an organization normally less than one-third of a division, highly adaptable, and easy to deploy.

The Army also altered its outlook on fighting alongside other services. It was no longer sufficient for its forces to accept joint interoperability, an approach that emphasized improving communications between the various services and establishing common doctrine. To function properly, the transformed brigade had to be organized, equipped, and trained along

joint-force lines so that it functioned as part of an inter-service team. This would enhance its mobility, intelligence resources, firepower, air support, logistics, and survivability.

The debate over wheeled versus tracked platforms that followed General Shinseki's October 1999 Association of the United States Army speech for a time diverted attention away from the Army's effort to transform itself, but the program continued nonetheless. In November 2000 the service chose the eight-wheeled LAV III, soon to be renamed the Stryker, as its new medium-weight armored vehicle. Transformation proponents also settled upon the Rapid Fielding Initiative as the best means to acquire advanced technologies to meet soldiers' needs. This permitted the purchase of commercially available products off the shelf to avoid the extended delays often imposed by traditional acquisition processes. It was through this program that the soldiers of the Army's first transformed brigade, named the Stryker Brigade after its new vehicle, received redesigned body armor and ballistic goggles, personal communications gear, and improved individual weapons-sighting systems that promised to enhance their ability to carry the fight to the enemy.

The term *network centric* also sparked much debate as the Army learned more about Transformation. The concept required that each vehicle in the new Stryker Brigade have the ability to connect with all the information systems serving the unit. Under this arrangement, the force's digital network would be able to share real-time battlefield information with virtually all of its soldiers while also easing and accelerating decision-making at all levels of command. Relieved of many of the burdens associated with continuously gathering information and updating the battlefield situation, unit commanders would in theory be able to focus more of their attention on shaping future events. Army leaders hoped that this capability would extend the new brigade's capacities enough for it to assume responsibility for an area of operations previously allotted to a division-size organization.

When the new unit arrived in Iraq, however, theory diverged from operational reality just as soon as the brigade received its first mission to conduct stabilization operations, a process that depended heavily on constant presence rather than rapid maneuver. Added to this were the unforeseen missions of protecting key facilities, training Iraqi units, and safeguarding the newly formed Iraqi government. While the brigade, ably assisted by other elements of TF OLYMPIA, performed all these tasks well, success had its price. The unit had to convert its field artillery battalion and cavalry squadron into de facto infantry units.

The performance of the brigade during its year-long tour in Iraq became the first step toward validating the Army's vision of a strategically, operationally, and tactically flexible brigade-based force. The unit's movement from the continental United States into theater proceeded quickly and effectively, requiring only commercially chartered aircraft and two specialized sealift vessels. At the operational level, the brigade demonstrated its flexibility almost at once by changing missions in mid-stride while deploying from Kuwait to Mosul. It did so without requiring even a small measure of logistical assistance from higher headquarters.

Over the course of the year that followed, the force repeated the process many times at levels ranging from platoon through brigade. It operated with virtually every major U.S. command in the country, including the 4th Infantry Division, the 101st Airborne Division, TF OLYMPIA, the 1st Infantry Division, the 13th Corps Support Command, and the I Marine Expeditionary Force. There were, however, limits. When the brigade assumed the mission of the reinforced 101st Airborne Division, it managed to maintain a high level of security in Mosul while continually detaching up to one-third of its infantry to assist units in other parts of Iraq. It could do this, however, only by assigning security responsibilities to units that normally would have never received that sort of mission.

Since TRADOC planners expected the Strykers to operate for sustained periods over a large area, they were hardly surprised to learn that the operational reach of the brigade often spanned more than two-thirds of Iraq, extending from the upper reaches of the Syrian-Iraqi border in the north to Al Kut and An Najaf in the south. Despite daily challenges, the unit was also able to maintain an extremely high operational tempo. This was a tribute to the individual skills of its soldiers, their equipment, and the logistical system that sustained them.

The experiences of the brigade's subordinate units demonstrated that this flexibility extended deep into the organization. The no-notice deployment of TF ARROW to An Najaf, which involved rifle companies from three different battalions, highlighted the operational and tactical flexibility of the brigade's components and the improved ability of Stryker-equipped organizations to sustain themselves logistically. The task force proved itself so capable of reconfiguring its internal organization to meet changing requirements that it interacted as effectively with the 1st Infantry Division as it did with the 13th Corps Support Command and every other unit that its Strykers encountered during their daily 160-mile trip along Highway 1.

Compared with the battle that occurred in Mogadishu, Somalia, in 1993, the fight that Stryker Brigade elements fought at Tall Afar on 4 September 2004 served as a good indicator of the progress Army Transformation had achieved. Although the rules of engagement and the friendly and enemy forces involved were not identical, there were clear parallels. Even so, the outcome in each case was different.

At Mogadishu, U.S. forces were called upon to rescue the crews of two downed Black Hawk helicopters; at Tall Afar, the 5th Battalion, 20th Infantry, encountered a similar situation when it had to retrieve the pilots of a stricken Kiowa Warrior. At Mogadishu, the Americans were pinned down overnight by strong opposition. In the end, although they inflicted heavy casualties on the enemy, they had to fight their way out on foot at considerable cost. At Tall Afar, the Stryker unit ensured the retrieval of the aircraft and its crew while inflicting serious casualties on the enemy and suffering only a few wounded of its own. Those results were not achieved by good luck or happenstance. Although the enemy gained the initiative when he shot down the Kiowa, the Strykers could move and mass very rapidly. They reached the helicopter first, set up a defense, and overwhelmed the forces attempting to overrun the site.

The Stryker battalion that fought at Tall Afar had capabilities that the U.S. Army force in Somalia lacked. Although the American soldiers in both engagements had similar skills and equipment, the Stryker-equipped unit also had the advantage of access to real-time intelligence; responsive joint firepower; mobile, armor-protected combat systems; and shared awareness down to the squad level. The advantages the unit's communications offered in this case were not always present in its other operations, where the enemy employed weapons and tactics that allowed him to blend easily into the civilian population; but the force's technological advantages at Tall Afar made a decided difference.

The crucial test of the Stryker Brigade, and of Army Transformation, did not take place in a laboratory or amid the dusty trails and hills of Fort Irwin's National Training Center. It came in Iraq, where the soldiers of the Stryker Brigade faced a resilient and dedicated foe. The effort cost the unit over the course of that year a total of 13 combat deaths, 13 noncombat deaths, and some 300 other casualties. The price to its opponents was immeasurably greater.

The fielding of the initial Stryker Brigade represented but the first step in an ongoing process to change the nation's Army. The entire force, not just a few select organizations, must be capable of providing combat commanders with well-led, well-trained, and well-equipped fighting units. The scope of this effort becomes apparent only with a realization

that the Army is focusing not only on organizational and technological solutions but also on the military culture that gives those attributes their strength: the sum total of the training, education, and leadership qualities of the people who make change happen. Throughout the process, the American soldier will figure large, for he is the centerpiece of the entire organization.

Bibliographical Note

Primary Sources

Material for this monograph came chiefly from records, reports, unit histories, and documents generated during the events described herein. The Stryker Brigade provided most of the material on its operations in Iraq while TRADOC's History Office provided significant material on the certification process. Capt. Curt I. Rowland, Jr., of the 5th Battalion, 20th Infantry, assembled a useful unit history immediately upon his return to Fort Lewis in November 2004. Capt. Sarah K. Soja complemented his efforts by composing a brigade-level summary of events in late 2005.

Interviews and Reviews

The monograph relied heavily on a series of interviews the Center of Military History conducted at Fort Lewis in March 2005. It also benefited from the reviews of soldiers who served with or alongside the Strykers at echelons from company to division and higher. Their insights were essential to the telling of the operational story.

Other Sources

The internet proved an exceptionally useful resource where coalition military operations in Iraq were concerned. Although primary sources are preferable, some internet sites showed that they could "fill in the blanks" or provide Army historians with access to small but critical nuggets of information. The Stryker Brigade News web page (<http://www.strykernews.com>) in particular was a very useful reference tool.

The local community at Fort Lewis, Washington, had a special affinity for the Stryker soldiers. Although a number of news correspondents gravitated to the brigade while it served in Iraq, the most valuable media resource for this monograph was Tacoma's *The News Tribune*. The paper chronicled the conversion from Abrams/Bradley to Stryker, followed the entire certification process, and sent a reporter to Kuwait and Iraq when the unit deployed.



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