



**Figure 1. 82<sup>nd</sup> Airborne paratroopers integrate Armor vehicles to support combined-arms training. Infantry brigade combat teams (BCTs) soon will have organic light-armor mobile protected firepower (MPF) companies to provide them with more firepower to counter near-peer threats. (Photo by SSG Jason Hull)**

# **Mobility, Shock and Firepower for Light Armor-Infantry Operations: Past, Present and Future**

**by CPT S. Scott Diddams**

*“Armor in the future must fly, just as all other means of war must fly. Possessing good cross-country mobility, and gunned to destroy any earthbound vehicle, the tank will play the decisive role in the coming battles of the airheads.” - MG James M. Gavin<sup>1</sup>*

The U.S. Army has begun a major shift in training to focus on countering near-peer, well-equipped and well-funded adversaries fighting with an assortment of mechanized-infantry and armored platforms far more capable than the typical insurgency. This means a transition from attempting to win a low-tempo “hearts-and-minds” game to winning a high-tempo, large-scale, combined-arms fight against a smarter, modern enemy.

This transition to better engage a differing mix of enemies reflects the nature of war itself. Tactics, techniques and procedures (TTPs) are constantly evolving as the enemy encounters our weapons’ effects, just as we upgrade our weapons and training to counter his advantages. This is especially true in our infantry brigade combat teams (IBCTs), which have limited resources to counter bunkers, tanks and other protected adversarial assets. In response to this deficiency, 82<sup>nd</sup> Airborne Division has begun experimenting with a mobile protected firepower (MPF) company to augment its light battalions.

The MPF platform promises to be a 30-ton tracked vehicle equipped with a 105mm direct-fire precision-weapon system. Currently, the role has been filled with U.S. Marine Corps' light armored vehicles (LAV-25), equipped with the appropriate laser engagement system (Multiple Integrated Laser Engagement System [MILES]) to simulate MPF. The Army has chosen two prototypes to evaluate within 82<sup>nd</sup> Airborne in 2021. The product of this and other evaluations will determine the platform of the proposed MPF units to be activated within the IBCTs in 2025.

The concept of augmenting expeditionary, light-infantry organizations with armor isn't new. Examples include general headquarters (GHQ) tank battalions that were tasked to support light infantry in World War II and Korea, or 73<sup>rd</sup> Armor Regiment, which air-dropped Sheridan tanks into Panama. These and many more historical, doctrinal evolutions produced a plethora of lessons-learned on the subject of light tank-infantry integration. However, in 82<sup>nd</sup> Airborne Division, which has been without an armored component since 1996, many of these lessons have been lost or discarded. It is valuable, therefore, to examine history as the Infantry Branch develops plans for the future.

This article will examine several relevant historical vignettes and then discuss lessons-learned and how they apply to the development of future light-armor doctrine, which should be of interest to Armor Branch leaders and Soldiers.

## **Operation Torch and development of tank-infantry tactics**

The Army published doctrine prior to the invasion of Africa that would be tested and developed throughout the duration of Operation Torch. Field Manual (FM) 7-5, *Organization and Tactics of Infantry – The Rifle Battalion*, governed infantry tactics, where infantry leaders were instructed that, when their attacks were supported by tanks, to advance their units as close behind the tanks using the same maneuvers they would if not supported by tanks.<sup>2</sup> The manual instructed infantry leaders to assume that the tank units would conduct battle the same as they would without infantry as well.

FM 17-10, *Tank Platoon*, which governed tank tactics, allotted GHQ tank battalions to be attached to higher echelons and distributed among infantry organizations as needed. The FM still assumed that infantry would follow behind, as dictated by FM 7-5, except when they encountered anti-tank weapons. Infantry units would be expected to destroy anti-tank weapons using "stalking and infiltration tactics."<sup>3</sup>

While there was consistency in doctrine for both tank and infantry leaders, it would take a number of failures before commanders could effectively employ the tanks with the infantry. The armored units employed in Africa were not GHQ battalions and were therefore not trained to work with the infantry. The mass attacks tank commanders had expected to conduct were not possible in the rugged terrain of North Africa.<sup>4</sup> Tanks were forced to be dispersed as infantry support in much smaller numbers than what was originally planned.

Infantry commanders did not know what to do with the tanks when they received them. Initially, infantry units, attempting to locate and fix their enemies while leaving their tanks behind, would be pinned down and destroyed with indirect fire. In other cases, when tanks were moved to the front, they would move too fast for the infantry to keep up, running themselves into anti-tank fire. When the infantry did keep close, they would often absorb fire meant for the tanks.<sup>5</sup>

The tanks were being moved around so often they were typically unable to develop cohesion with their infantry counterparts as a combined-arms unit and to develop effective TTPs. They also had trouble accessing spare parts and crew replacements.

The chief of the Armored Force, LTG Jacob L. Devers, wrote the following to GEN George Marshall in 1942: "Economy-of-force and unity of command go together. You get little of either if you get a lot of attached units at the last moment. Team play comes only with practice."<sup>6</sup>

Devers' note to Marshall reflected what Americans had been learning while fighting. In Africa, organizations in which tanks and infantry were attached together for extended periods ultimately became highly capable in battle.<sup>7</sup>

## **504<sup>th</sup> and 740<sup>th</sup> advance on Siegfried Line**

Company C, 740<sup>th</sup> Tank Battalion (GHQ), was attached to 504<sup>th</sup> Parachute Infantry Regiment (PIR), 82<sup>nd</sup> Airborne Division, for the advance on the Siegfried Line Jan. 28, 1945. They were equipped with M4 Sherman tanks, each with a 76mm cannon, two 30-caliber coaxial and bow machineguns, and a 50-caliber pintle-mounted machinegun on top of the turret.

One tank platoon from Company C was attached to each of 504<sup>th</sup>'s three battalions. Their objective was the town of Herresbach, Belgium, and they would be the right flank of First Army.

The 3<sup>rd</sup> Platoon from Company C of the 740<sup>th</sup> and 3<sup>rd</sup> Battalion of the 504<sup>th</sup> would lead the attack. Snow and fog covered the advance down a single narrow trail. Single tanks led paratroopers marching in columns of two spaced at platoon interval.<sup>8</sup>



**Figure 2. Soldiers from 740<sup>th</sup> Tank Battalion and 82<sup>nd</sup> Airborne Division push through the snow near Herresbach, Belgium, Jan. 28, 1945. (U.S. Army photo)**

For the first 7,000 yards of the advance, the column encountered only minimal resistance, consisting of machinegun and small-arms fire. At that point the column was notified of a German counterattack to its north. Four tanks assembled at the front of the formation, and infantry climbed on to maneuver toward the suspected enemy.

The German and American columns stumbled upon each other, and without hesitation American paratroopers and tanks jumped into action, seizing the initiative. The lead tank opened with its full complement of machineguns as well as its main cannon, while paratroopers on the ground charged forward, firing from the hip. The violent combined-arms action was over in 10 minutes, with the 504<sup>th</sup> reporting more than 100 Germans killed and about 180 captured. Not a single American casualty was reported.<sup>9</sup> The town of Herresbach was seized within an hour.

Interspacing tanks among infantry platoons along the canalizing trail to Herresbach allowed for optimal security and firepower spread throughout the formation. Upon notification of contact, the ability of riflemen to ride toward the enemy on top of a platoon of tanks no doubt increased the concentration and tempo of the movement-to-contact. The ability of the tank-infantry team to react to such a large enemy force so decisively in so little time was a result of mobility, shock and firepower that would have been lacking without armor support.

### **Infantry-armor task force in Korea**

As the war in Korea progressed into 1951, especially in the west where terrain was more forgiving, American and United Nations forces were regularly conducting combat operations in infantry-armor battalion task forces.

Typically an infantry regiment consisting of three battalions had a tank battalion of four companies in support, and each battalion would have one or two tank companies attached in addition to other enablers such as engineers, artillery and reconnaissance companies. These infantry-armor task forces were successful in limited-objective attacks such as the attack on Osan-Suwon Jan. 15, 1951.

The 27<sup>th</sup> Regimental Combat Team (RCT) was organized into three task forces of 27<sup>th</sup> Infantry Regiment, supported by 89<sup>th</sup> Tank Battalion. Task Force Baker – consisting of Soldiers from 2<sup>nd</sup> Battalion, 27<sup>th</sup> Infantry Regiment, and Company C, 89<sup>th</sup> Tank Battalion – spearheaded the attack on Suwon. Their rapid advance, coupled with the shock effect and firepower of their armor enablers, caught the defending enemy off guard, inflicting 200 casualties.

The RCT continued toward and into Suwon Jan. 16-17 with additional air support. With shock and surprise, the RCT engaged enemy forces on top of and inside buildings, flushing them out onto the street kill zones with air and ground fire. By the end of the operation, an estimated 1,150 enemy were killed at the cost of a single American casualty.<sup>10</sup>

Similar infantry-armor task-force concepts were put to use successfully in several more operations of this time period. Notable is Operation Punch in February 1951, in which 25<sup>th</sup> Infantry Division attacked to seize two hilltops outside the town of Suwon. Two separate task forces were assembled from 64<sup>th</sup> and 89<sup>th</sup> Tank Battalions and 1<sup>st</sup> and 2<sup>nd</sup> Battalions of 27<sup>th</sup> Infantry Regiment. The plan consisted of the tank battalions launching penetrating attacks to the flanks and rear of the hilltops, while infantry attacked up the hills themselves.

The armor teams were not meant to seize or secure any terrain, only to disorganize and disrupt the enemy to inflict maximum casualties and then withdraw. In the flanking maneuver, each tank company was teamed with an infantry company, and both commanders remained together physically for the rest of the operation. Typically the infantry commander would ride on the back deck of the armor commander's tank. The operation ended with a reported 4,251 enemy killed at the cost of 100 allied casualties.<sup>11</sup>

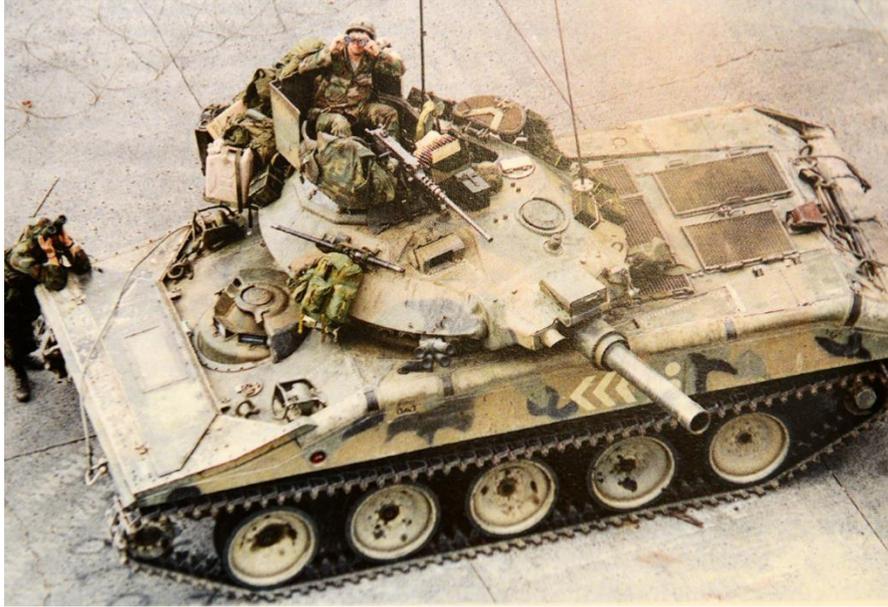
### **3-73 Armor and Operation Just Cause**

In the early morning of Dec. 20, 1989, Company C, 3<sup>rd</sup> Battalion, 73<sup>rd</sup> Armor Regiment, air-dropped 10 M551A1 Sheridan tanks to the east of the Tocuman-Torrijos Airport in Panama as part of Operation Just Cause. The light tanks of this unique division-organic tank battalion were equipped with a 152mm main gun, 7.62mm coax and the commander's .50-caliber pintle-mounted machinegun.

Of the 10 vehicles dropped into Panama, eight were made operational and organized in sections belonging to each of the three PIRs, with one section establishing a blocking position at the airport's entrance.<sup>12</sup> Soldiers from 1<sup>st</sup> Battalion, 504<sup>th</sup> Infantry Regiment made direct contact with the Panamanian Defense Force (PDF) when they were ambushed by a machinegun position while clearing an obstacle not far from the drop zone. The lead tank commander immediately opened fire with his .50-caliber machinegun, and his wingman, upon acquiring the enemy location, fired a single 152mm high-explosive (HE) round, causing the side of the building occupied by the enemy to collapse. Enemy fire ceased, and the infantry battalion reduced the obstacle and continued.

Later on the same route, Sheridans and infantry encountered another obstacle consisting of an apparent vehicle-born improvised-explosive device. The obstacle was reduced by firing a single 152mm HE round. When the smoke cleared, the tanks pushed the wrecked vehicles aside, and the route was open.<sup>13</sup>

Elsewhere, Sheridans were being put to work on the offensive against the PDF's Commandancia complex and airborne and ranger training base. In the former, Sheridans used their main cannon to knock down walls and open areas for dismounted maneuver. They fired HE rounds into buildings as preparatory fires prior to the infantry entering and clearing. The HE rounds killed occupants and drove the enemy into a state of confusion and discord before being swept away by the precise urban maneuver of the paratroopers.



**Figure 3. An M551 Sheridan sits outside the Apostolic Nunciature, the Vatican's embassy, during negotiations for Manuel Noriega's surrender in Operation Just Cause. (U.S. Army Center of Military History photo)**

In the latter, the company commander of the armor-infantry team took his position at the deck of one of his attached Sheridans and manned the dismount telephone to coordinate direct fires, putting tanks to use preventing fratricide.<sup>14</sup>

In contrast to prior infantry-armor operations, the paratroop commanders knew the capabilities of their permanent armor enablers, and likewise the Sheridan crewmen knew how their infantry counterparts fought. Together they produced a lethal and highly successful team. Tanks were available to assist their infantry counterparts in the joint forcible entry almost immediately after hitting the ground and provided much-needed mobility, shock and firepower to keep paratroopers moving from the airhead to their objectives while minimizing casualties. Company C accomplished its mission and returned home from Panama with only one crewmember wounded

### **Company A, 4<sup>th</sup> Battalion, 68<sup>th</sup> Armor at JRTC**

In June 2019 at Joint Readiness Training Center (JRTC), Fort Polk, LA, 82<sup>nd</sup> Airborne Division's MPF Company brought three platoons of Marine Corps LAVs equipped with MILES simulating a 105mm auto-loading cannon and 30 tons of armor. The company supported 1<sup>st</sup> Brigade Combat Team in the airborne joint forcible entry, followed by defensive and finally offensive operations against a near-peer mechanized enemy.

The initial plan was to task each of the three platoons to a habitual parent infantry battalion, with one platoon being air-dropped and the other two arriving by air-land. Immediately upon air drop, a platoon of MPF vehicles were made available to the brigade commander to support the infantry battalions as they expanded their control over the airhead.



**Figure 4. A Sheridan tank supporting the 82<sup>nd</sup> Airborne rotation at JRTC patrols the forward landing strip in Cortina. (Photo by Raymond Barnard)**

After encountering minimal resistance, the platoon was attached to 2<sup>nd</sup> Battalion, 501<sup>st</sup> PIR, and assisted in repelling multiple mechanized-infantry counterattacks over three days until it was finally destroyed by enemy armor.

The morning after, a two-vehicle section that was initially attached to 1<sup>st</sup> Battalion, 504<sup>th</sup> PIR, was rerouted to 2<sup>nd</sup> Battalion, 501<sup>st</sup> PIR, to supplement that battalion's defense. The receiving company commander provided clear and brief guidance to provide a defensive battle position (BP) facing down a narrow road with platoons of infantry occupying BPs at the flank. Around midnight an enemy armored-battalion column approached the company engagement area. As planned, infantry attempted to engage enemy armor first with their dismounted anti-tank systems with limited success. The MPF section then began engaging enemy armor with immediate effects.

Initially, the enemy focused on the dismounted infantry arrayed in the tree line at their flank. A few *boyevaya mashina pekhotys* (BMPs) identified and fired back at the engaging MPF section, but their 30mm cannons had no effect on the MPF platform's frontal armor. The section expended all of its ammunition in the space of 20 minutes, destroying a company-sized element of T-80s and BMPs.

Continuing to receive only 30mm fire, the section arranged its vehicles to form an effective roadblock, and the enemy armored column was completely halted. It was the first time in recent history that a light brigade had been able to effectively stop the advance of the armored counterattack at JRTC.

Following the defense, the MPF company was reconstituted and divided up into three armor-infantry teams, two of which were tasked with breaching enemy defenses around the stronghold town of Sangari and passing dismounted paratroopers onto the objective. These teams were augmented with M1A2 72-ton main battle tanks in addition to the MPF platforms. On the approach, the teams took little contact until a section of both MPF vehicles and M1A2s were mistaken for enemy armor and destroyed by friendly dismounted anti-tank systems. After absorbing this significant loss, the teams continued to the objective, meeting and destroying enemy armor and successfully opening the breach for infantry to follow through.

## **Lessons for the future**

The bottom line is that success of the light armor-infantry team, as with any enabler, is predicated first on the combined understanding of each other's capabilities and limitations by both armor and infantry leaders, leading to

harmonious coordination between crew members and dismounts. This is best achieved through repeated MPF-infantry maneuver training at battalion and below level with organic or habitually attached MPF crews. In a mission-command environment, the efficacy of armor enablers in training and the development of strong TTPs is limited to a well-informed commander's creativity and willingness to take prudent risk. Once this habitual training relationship is achieved and strong TTPs are established among leaders, success on the battlefield will follow.

While this formula for success may seem trivial to commanders who have spent their careers in armored and mechanized organizations, IBCTs typically lack personnel with mechanized experience or understanding of armor doctrine. This general lack of understanding of armored capabilities and doctrine among leaders in IBCTs is also dangerous in that it has created a prevalent attitude of rejection toward the armored force. Light-infantry commanders and staff typically believe they can accomplish their mission without armor because they have been doing so for decades. History has shown, however, that permanent light armor augmentation is an incredible force multiplier, which will allow the IBCT to accomplish much more.

Whether light-infantry commanders want it or not, the MPF company will become a part of IBCTs in the near future. For those commanders who find themselves with armor enablers for the first time in their formations and don't know how to employ them, I offer that there is no right answer, but experience and history has taught us to adhere to these key principles:

- **The MPF requires local security provided in the form of dismounts or a wingman vehicle.** Successful combined-arms teams can be formed between two or more MPF platforms, an MPF and a machinegun-equipped humvee, or preferably an MPF and a squad of riflemen. Dismounts are ideal because it is critical to cover the deadspace around the vehicle and prevent infiltration.
- **Avoid deliberately maneuvering the MPF platform off-road through low ground or loose sand and soil.** A thorough terrain analysis should be conducted at a minimum via a map reconnaissance to determine severely restricted terrain. You don't want your vehicles to get stuck.
- **Make use of engineer assets to provide hull defilade fighting positions.** The MPF platform benefits from the smallest silhouette possible while still being able to traverse its turret.
- **Give the MPF clear lines of sight and maximum standoff.** The MPF is equipped with precision, high-velocity, direct-fire, laser-ranged weapon systems firing both kinetic and chemical ordinance. These weapons systems can affect every perceivable land target accurately and easily at least 3,000 meters away.
- **Plan to make Class III resupply available to the MPF daily and plan to make Class V resupply available during offensive or defensive action against armor or armored targets.** The MPF in contact with armor will run out of main-gun ammunition quickly. Ensure that the MPF platoon sergeant and battalion S-4 have made contact during logistical planning.
- **The infantry planner should have constant access to the MPF platoon leader prior to execution.** During execution, the combat commander should prioritize his control of the MPF. The MPF will most likely be the combat commander's most casualty-producing weapon system and best enemy-detection system. Employing it at the center of mass of the operation is critical and enabled by keeping the MPF leader physically with the tactical planner prior to (and decision maker during) combat operations.

Adherence to these principles and the lessons history teaches us, coupled with the application of common sense, will set your operation up for success. When the platform arrives, its technical specifications will no doubt affect its maneuverability and combat capabilities. The key is to train together, take risks and make mistakes, then train again, and again, and again.

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## Notes

<sup>1</sup> MG James M. Gavin, "The Future of Armor," *Infantry Journal*, January 1948.

<sup>2</sup> FM 7-5, *Organization and Tactics of Infantry – The Rifle Battalion*, 1940.

<sup>3</sup> FM 17-10, *Armored Force Field Manual: Tactics and Techniques*, 1942.

<sup>4</sup> John W. Washburn, "Integration of Armored Forces in the U.S. Army Infantry Division," monograph for master's thesis, U.S. Army Command and General Staff College, 2001.

<sup>5</sup> Michael D. Doubler, *Closing with the Enemy: How GIs Fought the War in Europe, 1944-1945*, Lawrence, KS: University Press of Kansas, 1994.

<sup>6</sup> Washburn.

<sup>7</sup> Doubler.

<sup>8</sup> After-action report, 740<sup>th</sup> Tank Battalion, January through April 1945, Washington, DC: U.S. Army, 1945.

<sup>9</sup> History of 504<sup>th</sup> Parachute Infantry Dec. 18, 1944, to Jan. 11, 1945, Washington, DC: U.S. Army, 1945.

<sup>10</sup> *Employment of Armor in Korea – The First Year*, Vol. II, Fort Knox, KY: U.S. Army Armor School, 1952.

<sup>11</sup> Ibid.

<sup>12</sup> K.J. Hammond and F. Sherman, "Sheridans in Panama," *ARMOR*, March-April 1990.

<sup>13</sup> F. Sherman, "Operation Just Cause: The Armor-Infantry Team in the Close Fight," *ARMOR*, September-October 1996.

<sup>14</sup> Ibid.

## Acronym Quick-Scan

**BMP** – *boyevaya mashina pekhoty* (Russian fighting vehicle)

**BP** – battle position

**FM** – field manual

**GHQ** – general headquarters

**HE** – high explosive

**IBCT** – infantry brigade combat team

**JRTC** – Joint Readiness Training Center

**LAV** – Light Armored Vehicle (U.S. Marine Corps)

**MILES** – Multiple Integrated Laser Engagement System

**MPF** – mobile protected firepower

**PDF** – Panamanian Defense Force

**PIR** – parachute infantry regiment

**RCT** – regimental combat team

**TTP** – tactics, techniques and procedures