

ARMOR



TANK DESTROYERS IN WWII: *Flawed Doctrine...Unmatched Bravery* Page 26

Tank Destroyers in WWII

Sent to war in vulnerable vehicles, tank destroyer crewman sometimes triumphed in spite of their flawed doctrine...

...Bravery and a big gun made the difference.

by First Lieutenant John A. Nagl

By the time of Ninth Army's offensive on the Roer Plain in November 1944, 2d Armored Division tankers had learned how to fight German Panther and Tiger tanks with their M4 Shermans. They knew that the 13-inch long, low-velocity shells they fired from their 75-mm guns would not penetrate the thick frontal armor of Panthers and Tigers at any range, but would do damage only to the sides and rear of their heavier opponents. Sherman tankers, therefore, attacked by platoons, capturing the enemy's attention with one platoon and maneuvering around to the enemy's rear with another. The only vehicle that could take on Panthers with any certainty of success was the M36 "Slugger" tank destroyer, armed with a 90-mm gun, but very lightly armored and without overhead protection for its gunners.

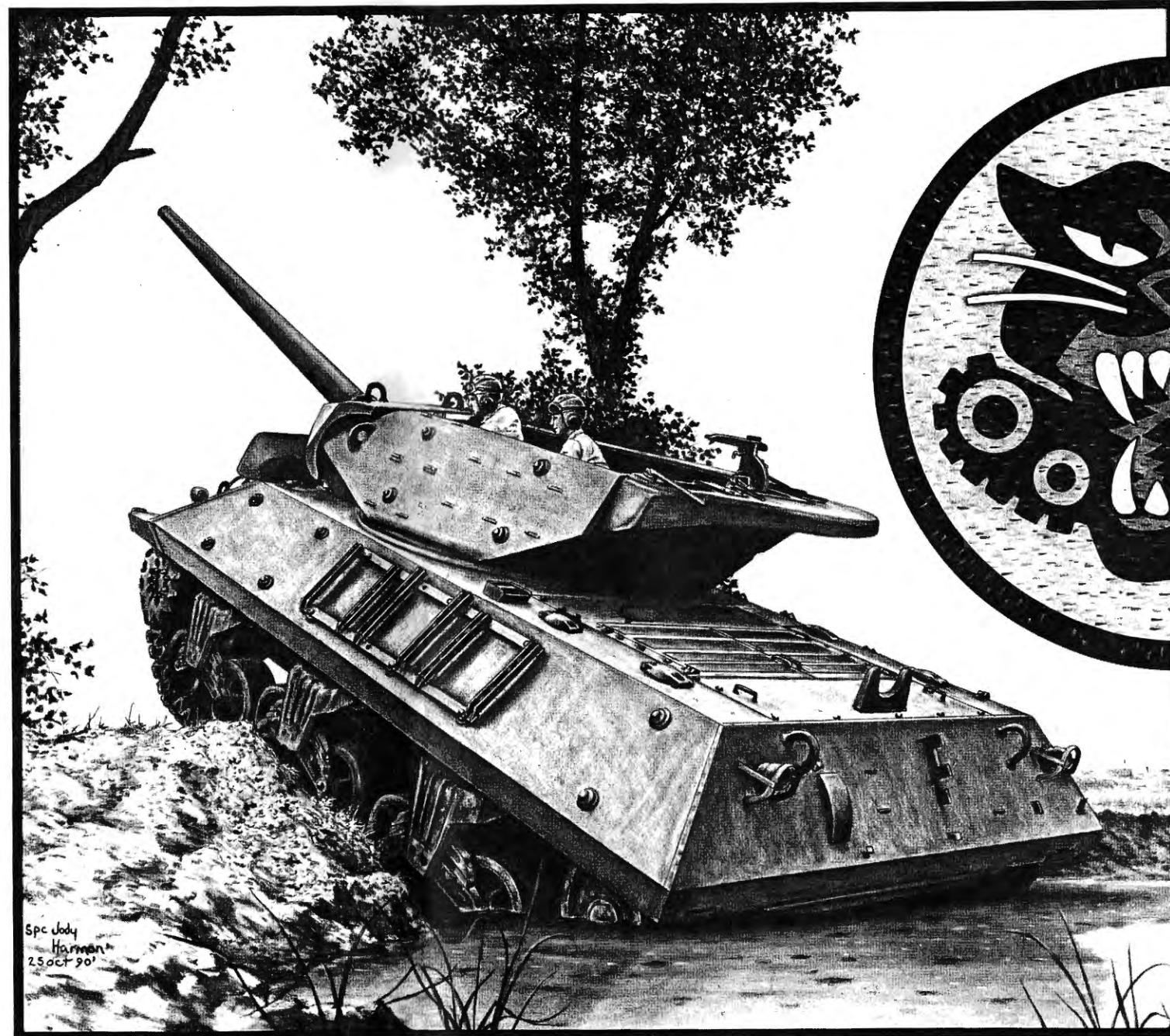
Shortly after dawn on November 17, 1944, the 1st and 2d Battalions of the 67th Armored Regiment were drawn up on a slope outside Puffendorf, ready to attack toward Gereonsweiler. Suddenly, 20 to 30 Panthers and Tigers of the veteran 9th Panzer Division attacked the Shermans. Strong artillery support



An M10 "Wolverine," the most numerous U.S. tank destroyer, was under-armored, out-gunned, and too often used as a tank.

from both sides pinned down the infantry and created a true tank-against-tank battle. It went poorly for the Americans.

The German tanks commanded the high ground, and sloping terrain around the American position made it impossible for the Shermans to maneuver around to their rear. Worst of all, the Sherman's 75- and 76-mm guns were almost completely



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ineffective against the heavier German tanks. One Sherman fired 14 rounds before seeing any effect on a Tiger. When some of the American companies were down to three or four tanks, the battalion commanders called tank destroyers forward from their traditional position in the rear. The 90-mm-equipped M36 "can openers" beat off the German tanks, but the day's action was costly. The 2d Armored lost 38

medium and 19 light tanks and suffered more than 350 combat casualties in the day's action.

An Armor School report on the battle ascribed the holdup at Puffendorf, described as "the biggest tank battle in 2d Armored experience," to "the inferiority of our tanks in guns, armor, and maneuverability." One tanker, interviewed two days after the battle, was more explicit:

"Our Ordnance Department needs to get on the ball."¹

The story of why American tanks were outgunned at Puffendorf and had to call on tank destroyers to drive off the German tanks is closely wound up with the history of the Tank Destroyer Corps. Their units now only a memory, tank destroyer personnel accounted for roughly six percent of the four field armies in

the European Theater of Operations during the Second World War, comprising 56 separate tank destroyer battalions, 13 group headquarters, and one brigade headquarters.² One Tank Destroyer Group and eight battalions saw service in the Pacific, and tank destroyers also served in North Africa. However, barely a year after the end of hostilities in Europe, all tank destroyer battalions were deac-

tivated, and the weapons system was never again employed by the U.S. Army.³

Although tank destroyers are no more, the story of how and why they were developed and deployed, and why tank destroyers were discontinued, has important lessons to offer Army leaders of today. These lessons include the necessity for integral antitank capability in infantry units at all levels; the imperative of emphasizing combined arms operations in training for the battlefield, and the need for doctrine to identify and exploit the weaknesses of threat forces. Finally, and most important, the history of tank destroyers in the Second World War stands as a stirring example of the courage and resourcefulness of the American soldier who overcame imperfect doctrine and outmatched vehicles to fight to victory.

Creation of the Tank Destroyer Corps

A tank is easy prey for artillery of all calibres.

-General Ludendorff, 1918

The success of Germany's blitzkrieg doctrine in overrunning Poland and France in 1939 and 1940 forced a reappraisal of the concepts that had governed tank defense since the first appearance of the weapons during the First World War. There were two schools of thought on how to defend against tanks:

- "Meet fire with fire" by attacking tanks with other tanks supported by close air support.

- Defeat an armor attack with the traditional infantry/artillery team, supported with an armored force, but primarily by use of specially organized antitank units.

This debate in many ways echoed the debate of the First World War over whether tanks should be used in an infantry support role or as a tactical weapon in their own right. The debate had been won by the infantry support argument, leading in 1920 to an amendment to the National Defense Act, which abolished the independent Tank Corps and assigned all tanks to the Infantry. The belief that tanks existed only "to facilitate the uninterrupted advance of the rifleman in the attack," in the words of a 1922 field manual, implied that tanks could also be stopped by depriving them of their infantry support. This understanding of the usefulness of tanks in land warfare persisted long after the blitzkrieg's success had proven it to be incorrect.

Antitank assets, like tanks themselves, remained under the control of the Infantry far longer than experience indicated they should. It was not until the autumn of 1940 that infantry regiments in a division received an antitank company, which, together with the antitank guns in division artillery, gave the division 68 antitank guns. (The French Army had been destroyed by Panzers, with 58 antitank guns in a division.) General George Marshall demanded more emphasis on antitank warfare than the infantry was willing to provide, and established a planning branch to take charge of antitank warfare on 15 May 1941. It fell under the control of LTG Lesley J. McNair, General Headquarters chief of staff, who firmly believed that special antitank units were the best way to defeat tanks. On July 21, 1941, he argued:

Decisive action against a tank attack calls for a counterattack in the same general manner as against the older forms of attack. A counterattack may, of course, be delivered by

other tanks, but the procedure is costly. There is no reason why antitank guns, supported by infantry, cannot attack tanks just as infantry, supported by artillery, have attacked infantry in the past. Certainly it is poor economy to use a \$35,000 medium tank to destroy another tank when the job can be done by a gun costing a fraction as much.

It was with this philosophy that General McNair established the Tank Destroyer Center at Fort Meade on 1 December 1941. The mission of the tank destroyers was to engage and destroy enemy armor, thus permitting American tanks to focus on what General McNair considered their primary role: exploiting breakthroughs and destroying enemy rear areas. This tactical doctrine required a powerfully armed and very mobile gun carriage; the mobility requirement and demand for a low-cost system meant that the tank destroyer would have to be lightly armored. This necessitated a unique doctrine.

Tank destroyers were intended to defeat enemy tanks attacking *en masse*. They were to be held in division or corps reserve until such an armored thrust was identified. Once the direction of the enemy attack was identified, the tank destroyers would deploy to positions previously prepared along likely avenues of approach and ambush the attacking columns. Under no circumstances were the tank destroyers to engage in head-to-head "slugging matches" with tanks, nor be split up into smaller than battalion-sized units and parcelled out to front-line infantry units; their light armor would not allow such missions.

The news of General Rommel's success in the African desert with the 88-mm antiaircraft gun against

British armor reinforced this untried doctrine. This information "convinced Army Ground Force planners...that the proper adversary of the tank was the antitank gun rather than another tank, a conviction that to some extent hindered Ordnance in developing a more powerful tank than the Sherman."⁴

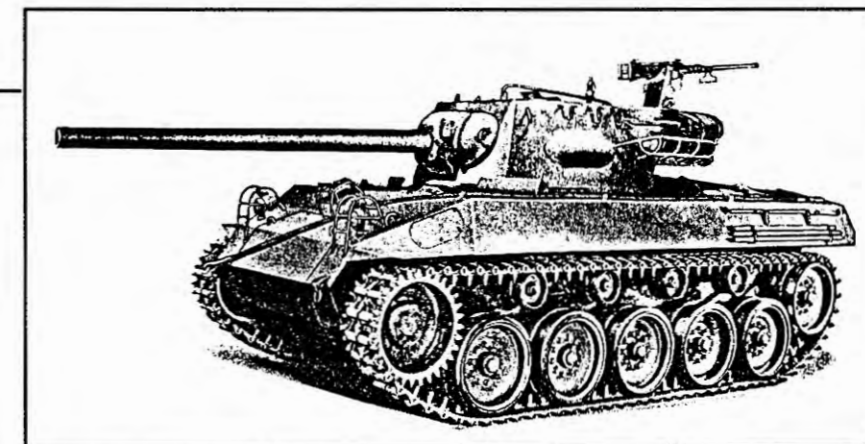
While the doctrine may have been successful against a pure armored attack, the belief that the Germans would attack in this way was erroneous at the beginning of the war — and became increasingly incorrect as the war dragged on, and the Allies moved over to the offensive. The Germans had suffered huge tank losses in the invasion of the Soviet Union by the time American forces engaged them, and the strategic bombing offensive took a heavy toll on German tank production. An officer who fought with the tank destroyers in Europe, Major Ralph W. Lang, explains how doctrine changed in the field:

In view of the reduction of the size of the attacking ground force, it was no longer necessary to employ the tank destroyer battalion in mass with its tremendous firepower... Therefore, it was generally decided that the tank destroyers should furnish close antitank support to the front-line units.⁵

The vehicles of the tank destroyer battalions made this a very risky operation.

Wolverines, Hellcats, and Sluggers

Doctrine dictated that the tank destroyer "shoot and scoot" from a distance and not engage in close combat with heavy forces. It, therefore, needed a large main gun and light armor protection. Because it would not be closely engaged with the infantry, an open turret, allow-



Because of their much more advanced torsion bar suspension, the later M18 "Hellcat" TDs were the fastest tracked armored vehicles to be used in WWII. The open-top turret and very skimpy armored protection made them vulnerable, and their 76-mm guns lacked punch.

ing good 360° visibility, would present no danger to the crew. The fact that actual employment of the tank destroyers tended to be in direct infantry support meant that tank destroyer crews were sadly unprotected in combat.

There were originally three types of tank destroyer battalions: light towed, light self-propelled, and heavy self-propelled. The light battalions were equipped with the 37-mm gun, which soon proved far too light to defeat even the smallest threat tanks, and in 1942, the Army moved entirely to the heavy self-propelled gun, which was a French 75-mm mounted on a half-track. The poor automotive performance and high silhouette of this system led the Army to create the first truly successful tank destroyer, the M10 "Wolverine" armed with a three-inch gun. Half of the tank destroyer battalions were equipped with the towed M5 three-inch gun in 1943, but the poor performance of the towed gun in offensive operations led to its early demise.

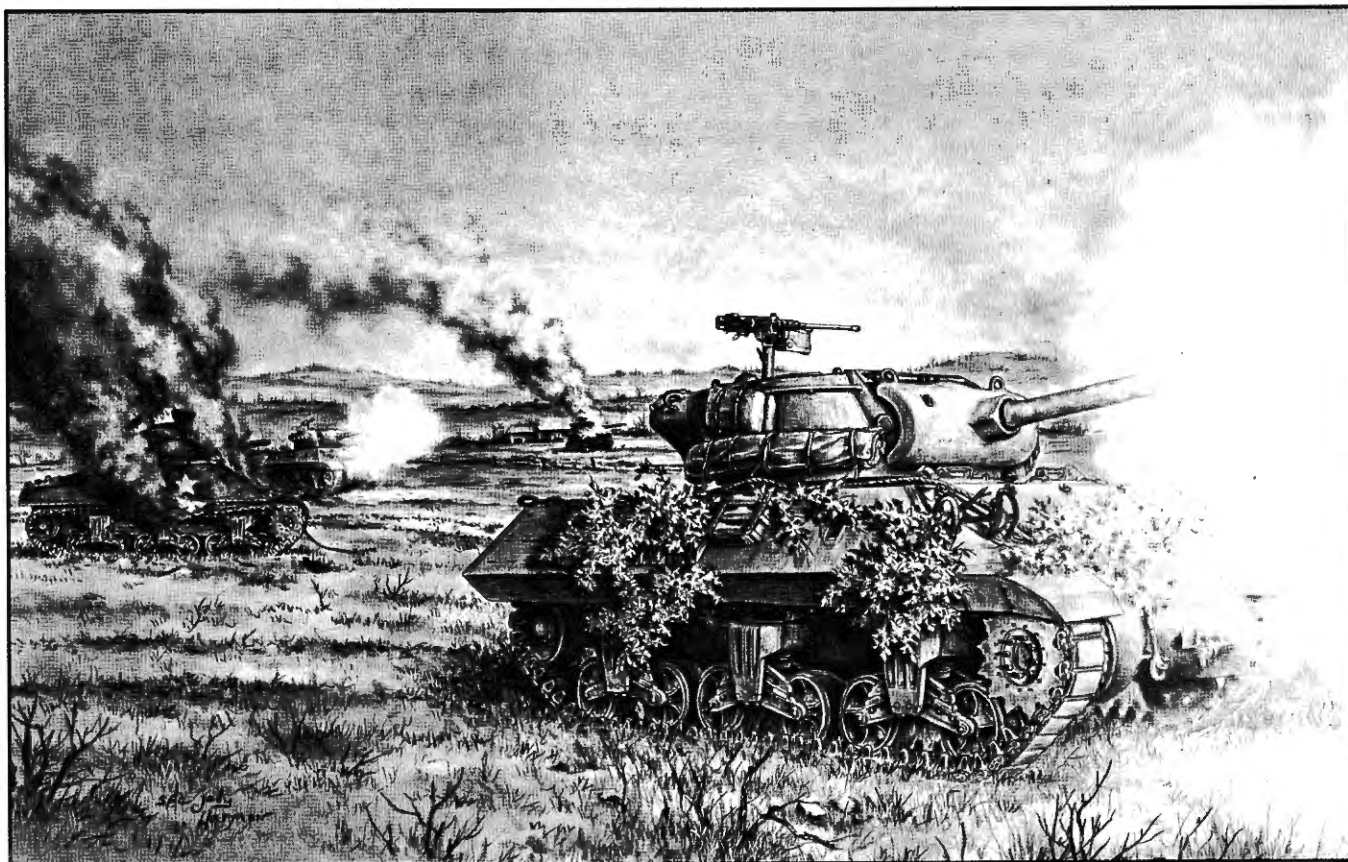
The M10 was unable to penetrate heavy German armor. Its projected replacement, the M18 "Hellcat," armed with a 76-mm gun, made its first appearance in January of 1944. The 76-mm gun had identical armor-piercing characteristics as the three-

inch gun it replaced, but was substantially lighter, allowing the removal of a heavy counterweight which had hung on the rear of the M10 turret. It offered more ammunition storage at the cost of less armor protection for its crew.

The most successful tank destroyer was the M36 "Slugger" with a 90-mm main gun. It was the only American system capable of defeating Panther and Tiger tanks at long range. However, like all of the tank destroyers, the M36 offered inadequate armor protection for its crews, and was vulnerable to artillery airbursts and small arms fire.

Trial By Fire

The concept of antitank defense, which had dominated American military thought in the 1930s and was reinforced by American perceptions of the German blitzkrieg through France, gained additional support during the early fighting in North Africa. Because American and, to a lesser extent, British tanks were poorly armed in comparison to the German tanks of that era (the British Army upgunned the 75-mm Sherman to a 17-pounder, which was far more capable than the American version), antitank guns had more success against the



The M36, because of its 90-mm gun, was often misused as a main battle tank, despite its lack of crew protection.

German armor than did the tanks. At the Battle of Kidney Ridge on 27 October 1942, in the southern portion of the Alamein position, the 2d Battalion of the Rifle Brigade had great success against the German tanks with its six-pounder guns. The lesson learned by the American Army was not that the tanks needed more firepower, but that infantry with tank destroyers could defeat armored attacks.

The result was unfortunate for the soldiers who fought in the European Theater. "During 1944 and 1945 American soldiers found their weapons inadequate to deal with German tanks. The reason for this was a combination of two factors: doctrine and knowledge of the enemy. Doctrine dictated that American tanks should not be armed to fight other tanks. A poor

evaluation of the enemy coupled with very limited experience in fighting his tanks provided no reason to change doctrine.⁶

When the Normandy battles showed the 90-mm gun of the M36 to be the only weapon capable of dealing with heavy German armor, demand from the front lines for the tank destroyer increased dramatically. More than 1400 of the 90-mm tank destroyers were produced by the end of 1944. However, they were used not in the role for which they were intended, but as main battle tanks in their own right.

Tank destroyer crews suffered heavy casualties as a result. Crews improvised turret covers ranging from canvas shelter halves to deflect hand grenades, to a folding steel top, which was standardized in August 1945; nothing but a fully-armored top, however, would have protected the crews against the preferred German tactic of calling

in artillery airbursts against the tank destroyers.

Although losses were heavy whenever the tank destroyers were employed in the front lines in direct support of armor and infantry forces, commanders had no choice; nothing else could defeat the German armor. In the tank battles of the Roer Plain in November 1944, the three battalions of Sherman tanks in the 67th Armored Regiment killed only five Panthers. The 702d Tank Destroyer Battalion assigned to the 67th Armor claimed 15.⁷

The Legacy of the Tank Destroyers

When officers of the European Theater of Operations studied their combat experience after the war, they noted that tank destroyers were almost never used in the role that doctrine assigned to them, but instead fought in frontline units

where they suffered from inadequate armor protection. These officers believed that a tank with a heavy main gun could better perform the mission of the tank destroyer, and therefore recommended that "tank destroyers as a separate arm be discontinued."⁸

Still, the American experience with tank destroyers was hardly an unprofitable one. As Captain Murray A. Louis pointed out in *ARMOR* Magazine in 1965, "A number of the lessons learned from the history of the tank destroyers are now official doctrine — especially the cross-attachment of relatively small armor units with mechanized infantry and armored cavalry to afford antitank protection and violent offensive power against enemy armor and fortified strong points."⁹

In 1962, *ARMOR* asked its readership if tank destroyers should be returned to active service. First Lieutenant George G. Chapman argued that they should not, pointing out that the main battle tank could perform all of the missions required: "attack, defend, retrograde, destroy any known tank in the world, be utilized for screening and reconnaissance missions, and fight and survive on the atomic battlefield." Because the tank destroyer could perform only a fraction of these tasks, "We should not expend our production capabilities on a limited fighting vehicle that can perform only half the mission."¹⁰

However, since the early 1960s, both the capabilities of armored vehicles and the threat which the U.S. Army must confront have changed dramatically. While the main battle tank remains an extremely capable weapons system, it pays for that capability with heavy

fuel requirements and very limited strategic mobility; if main battle tanks are not already in position when needed, it is extremely difficult to transport them to trouble spots quickly. This is likely to become more and not less of a problem as the spectrum of conflict shifts away from Europe toward more distant trouble spots.

This description of tank destroyers in action may provide a model for how similar weapons systems could be employed in future conflict:

In the offensive against tanks, TDs relied on mobility and heavy firepower to offset the disadvantage of their light protective armor. They operated on the offensive in conjunction with heavy armor and were utilized to supplement the speed and firepower of the slower but more heavily armored vehicles. They were particularly adapted to this role when soggy terrain would not support the weighty tank. The TD vehicle, with less ground pressure, could maneuver through friendly units, outmaneuvering hostile armor as well, using this capability to attain an advantageous position, accomplish its fire mission, and move to the flank or rear for another strike.¹¹

Many of the lessons of the American experience with tank destroyers have already been incorporated; the necessity for all Army combat forces to possess an integral antitank capability, for example, has been recognized and largely met. The lesson that tanks must be able to defeat threat tanks has also been learned, if at great cost.

If tank destroyers serve as models for the development and employment of future light armored systems, then the sacrifices of the sol-

diers who fought in the "can openers" of the Second World War will again be repaid — in spades.

Notes

¹Linda Mayo, *The Ordnance Department: On Beachhead and Battlefield*, (Washington, D.C., Office of the Chief of Military History, U.S. Army, 1968), pp. 322-326.

²Dr. Christopher R. Gabel, "Seek, Strike, and Destroy: U.S. Army Tank Destroyer Doctrine in World War Two," *Leavenworth Papers #12*, (Fort Leavenworth, Kansas: Combat Studies Institute, 1985), p. 52.

³Gabel, p. 65.

⁴Mayo, p. 33.

⁵Major Ralph W. Lang, "Tank Destroyer Development," *Armored Cavalry Journal* 56:4 (July-August 1947), p. 31.

⁶Charles M. Baily, *Faint Praise: American Tanks and Tank Destroyers During World War II*, (Hamden, Ct: Archon Books, 1983), p. 142.

⁷Mayo, p. 327.

⁸Baily, p. 139.

⁹Captain Murray A. Louis, "Seek, Strike, and Destroy: Tank Destroyers in the ETO," *ARMOR* 74:5 (September-October 1965), p. 26.

¹⁰1LT George G. Chapman, "Tank Destroyers," *ARMOR*, 72:2 (March-April 1963), p. 3.

¹¹Major William F. Jackson et. al., *The Employment of Four Tank Destroyer Battalions in the ETO*, (Fort Knox, Ky.: AOAC Staff Study, May 1950), p. 126.

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