

# A cautionary lesson from history for FA doctrine development

## FA and tank destroyers in World War II

*By Dr. John Grenier*

The Field Artillery Branch's doctrine writers face a difficult task in 2019. As the Army pivots from counterinsurgency (COIN) that defined the War on Terror to large-scale, ground-combat operations (LSGCO) against potential peer competitors, they must develop the doctrine to properly man, equip, train and employ FA. Current writing on Multi-Domain Operations (MDO) offers guideposts for a new or revised FA doctrine. Its focus on the tactical and operational-level problems that today's increasingly lethal and expanded battlefield present also paint a bleak picture of the challenges FA will confront as it tries to maintain its place as the King of Battle. The Army's new FM 3-09, as its subtitle Fire Support and Field Artillery Operations suggests, is a yeoman-like effort at conceptualizing the structure and roles for FA on tomorrow's battlefields. Like all doctrine, it necessarily tries to predict the future, something that no one, of course, can do.

Fortunately, history offers lessons that can help guide us as we think about, plan for, and exercise the capabilities we need for tomorrow's wars, provided we ask the right questions. In the

*A World War II propaganda poster.  
(Library of Congress)*



late 1930s, we should remember, the Army and the FA Branch faced an “increasingly complex environment” that seemed, at the time, as daunting as the one we confront today. The German Wehrmacht had developed a new combined-arms synthesis — popularly known as Blitzkrieg (Lightning War) — of ground and air forces that threatened to toss to the trash heap of history everything the Army thought it knew and understood about modern land battle. When German armor divisions (Panzerkorps) supported by airpower rolled over Poland in the autumn of 1939, smashed through the French Army in the spring of 1940, and drove the British Army from the Continent, American Soldiers were, to say the least, disconcerted. The Panzers and their Lightning War seemed unstoppable. American forces were woefully unprepared to meet this new competitor — not our peer, but our superior who outnumbered, outranged, and outgunned us — on the battlefield in 1941 or 1942.

The Army initially did not know the kinds of forces to field to deal with Panzers. A fundamental “problem” grew from its commitment to the regimental combat team (RCT), a maneuver unit that evolved from the U.S. experience in World War I, when armor forces made their first appearance on the battlefield. The typical RCT, the building block for American divisions, consisted of infantry regiments with organic FA battalions supported by, not in support of, independent armor forces. The small and money-strapped Army of the 1930s, however, chose to give little thought to anything above division-level maneuver.<sup>1</sup> The Panzers’ great wave of battlefield victories forced the Army to think beyond the tactical level of war, and consider employing corps and field armies. Many believed the obvious lesson of 1939 and 1940 was that the only effective countermeasure for a

tank was a tank. Artillerymen, not surprisingly, did not concur. They were concerned that, in the rush toward building an armor-centric force tailored for armor-on-armor operations at corps-and-above, the Army might throw the baby out with the bathwater. After much consideration of the matter, the Army acknowledged that it needed to find a way to beat the Panzers — now clearly a dominant player on the battlefield — at the tactical level, and then build from there.

Once they recovered from the initial shock that came with the Panzers’ rapid string of victories, some of the more insightful thinkers in the Army recognized Blitzkrieg’s Achilles Heel. The deeper they plunged through enemy lines, the more vulnerable the German (or any, for that matter) armor columns became to attacks on their flanks and rear. The Wehrmacht attempted to solve this problem with the creation of motorized infantry that could “keep up with the tanks” and protect their lines of communication and supply. The U.S. Army tried to follow suit, and in 1940, it formed its first motorized infantry division, the 4th Infantry Division, for the day when American armor columns might go head-to-head with German armor columns. Indeed, the thinking in American military circles in mid-1940 was that American and German armor forces could look forward to meeting in large tank battles, across fronts thousands of yards wide, and engage in a dangerous dance of thrusts and parries.

Maj. Gen. Lesley McNair, the officer whom the Army vested in 1940 with responsibility for building the army that eventually fought the Wehrmacht in North Africa and Northwest Europe, believed that to wage decisive armor warfare, the U.S. must develop a means of neutralizing enemy armor forces with capabilities other than tanks or infantry in trucks.<sup>2</sup> An FA officer by train-

ing and inclination, he naturally turned to artillery as a possible neutralizer of Blitzkrieg. But McNair and his staff faced two main questions: could heavy, big-gun FA keep pace with friendly and rapidly moving armor and motorized infantry, and how might it fare if field commanders placed it at “pointy end of the spear” to blunt German armor attacks? The answers were not encouraging: it couldn’t, and poorly. The solution thus became building mobile tank destroyer (TD) units equipped with self-propelled or towed anti-tank (AT) guns.

McNair’s interest in TD thus is best seen as the catalyst that sped up thinking about how the Army could use its new AT weapon system. In 1936, the Army developed a gun specifically for AT operations, and in 1939 it began production of a 37 mm AT cannon based on, not coincidentally, a Wehrmacht model. But the chief of infantry, whose branch held responsibility for AT doctrine, completely ignored it, and the Army’s FA doctrine discussed AT operations in a mere six pages. Army Chief of Staff George C. Marshall, thanks to McNair’s advocacy for TD, recognized this was inadequate, and in April 1941 he tasked the Army’s G-3 (Operations and Training) to expand the doctrine. The fighting in France offered striking lessons. The Wehrmacht proved itself notoriously good at employing AT weapons: Panzers thrust, and then pulled back their forward units, which British armor, time and time again, pursued to a line of immobile German 88 mm anti-aircraft guns that opened British tanks like sardine cans. The resulting American AT doctrine therefore explained how each infantry division should possess a TD battalion that served as a highly mobile force to engage enemy armor after it breached American lines and thereby exposed its flanks. Thus while each RCT should include a TD battery that supported it, commanders

<sup>1</sup> David E. Johnson, *Fast Tanks and Heavy Bombers: Innovation in the U.S. Army, 1917-1915* (Ithaca: Cornell University Press, 1998).

<sup>2</sup> Mark Calhoun, *General Lesley J. McNair: Unsung Architect of the U.S. Army* (Lawrence, KS: University Press of Kansas, 2015).

must avoid posting TD forces at the front. The great fear was that if TD tried to blunt head-on German advances, the more mobile and more heavily armed Panzers could easily outmaneuver, isolate, outgun and annihilate them. The bottom line thus became that TD should serve in defensive as opposed to offensive roles, attack the Panzers on their flanks and rear and avoid head-to-head engagements with them.

McNair decided to exercise, and perhaps validate, TD doctrine in the Louisiana and Carolina Maneuvers of 1941. During the summer's Louisiana maneuvers, two field armies—Blue and Red—ranged across the area that became Fort Polk. Later that fall, near the Thanksgiving holiday, Blue and Red took their “war” to the border region of North and South Carolina.

The two training venues enabled McNair to “switch up” TD play, which offered opportunities to compare and contrast training and outcomes. For the Louisiana Maneuvers, McNair gave Blue two FA brigades to organize in nine TD battalions divided among three regiment-sized TD groups. He insisted that in the first phase of the maneuvers, only Blue would possess a TD capability. “These groups were to be highly mobile, relatively self-sufficient, and designed to serve as an aggressive army-wide anti-tank reserve.”<sup>3</sup> Despite the notion that towed 75 mm guns, and artillery pieces strapped in the back of half-tracks, were to serve primarily as an army-echelon reserve in a defense posture, McNair also instructed them to employ offensive tactics whenever possible. During the second phase of the maneuvers, both Red and Blue contained TD groups.

McNair and the advocates for TD were most pleased with the exercises. Initial analysis suggested that in the Carolina phase, 760 AT guns destroyed, disabled

or stopped an equal number of tanks. Follow-on analysis suggested, however, that FA battalions in support of infantry regiments as part of RCT took a higher toll on adversary tanks than TD battalions. This actually made sense: most tanks had thick frontal armor that light guns could penetrate only with difficulty; tank decks were lightly armored, which made them vulnerable to plunging fire. Regardless of who “killed” whom, McNair remained convinced that the maneuvers proved “that the tank could be stopped,” and the positive results of the experiments should inspire the Army to develop TD doctrine, organization, and capabilities.<sup>4</sup> The stage was set, as a result, for a major debate within the FA community as it decided how many of its eggs — aka its guns — it should put in the TD basket.

Events quickly overcame the theoretical debates over TD. The Secretary of War held a meeting in Washington D.C. on Dec. 3, 1941, to discuss maneuvers' implications; four days later, Imperial Japan attacked at Pearl Harbor. In the wake of the Japanese Blitzkrieg across the Southwest Pacific Area (SWPA), President Franklin D. Roosevelt shifted defense priorities, and with them funding, to the Navy, the Army Air Forces, and the Lend-Lease Program for our allies. Still, in 1942, McNair called for 222 TD battalions; the War Office approved 144. The Army eventually fielded 106 TD battalions, and at war's end, 68 remained in service; over 100,000 Soldiers served in TD units that fought in North Africa, the Pacific Theater and Western Europe. It should be noted that the Army retained towed AT guns throughout the war. After the half-track mounted guns failed in North Africa, TD units in the field received turreted guns, which worked well, except the Army, to provide spotters a wide field of view, gave them open turrets, which meant

Soldiers could not “button up” and they thereby became incredibly vulnerable to anti-personnel fire from the enemy.<sup>5</sup>

With the bean counting of resource apportionment and allocation well in hand, the time for bold action had arrived. Instead of spending more effort discussing TD organization and weapons development, or conducting further evaluation to resolve the disconnect between the initial and subsequent findings on the effectiveness of TD as compared to FA as AT forces, the War Department, with the swipe of pen, essentially created a quasi-branch, with its own insignia, for TD.<sup>6</sup> A name change marked the first step: all divisions must designate their AT units as TD. Then, significantly, each division must surrender control of its 36-gun TD battalions to the army, not the corps, under which it served. The G-3's suggestion that each division retain an organic TD battalion therefore quickly became a doctrinal relic. As the Army prepared for land battle in 1942 or 1943, it assumed enemy armor presented the primary threat to American and allied ground forces; this allowed the advocates who argued that TD not serve as front line units, but instead as AT reserves, to win the debate on that important force-protection and sustainment matter. Yet even in their defensive posture, most believed that TD units' mobility and firepower might allow them to realize the branch's motto of “Seek, Strike and Destroy.” Few at the time seemed to notice the contradiction in the guidance that while TD must avoid “slugging matches” with armor, they should search out the offensive whenever possible.

The Army's initial engagements with the Wehrmacht in North Africa and Sicily, and with the Imperial Japanese Army in the SWPA, suggested that the pre-war angst over the Blitzkrieg had

<sup>3</sup> Christopher R. Gabel, *The U.S. Army GHQ Maneuvers of 1941* (Washington, DC: US Army Center of Military History, 1991), 54.

<sup>4</sup> *Ibid.*, 171.

<sup>5</sup> Harry Yeide, *The Tank Killers: A History of America's World War II Tank Destroyer Force* (Philadelphia: Casemate, 2005).

<sup>6</sup> <https://www.cavhooah.com/info/sections/branch-insignia/>



*Cpl. Hanry Manoni and Sgt. Joseph Loftis sight through a rangefinder in the process of aiming big guns of their artillery battery during an unit maneuver exercise. (Library of Congress)*

perhaps been much ado about nothing. While the Soviets and Nazis fought massive armor battles on the Eastern Front, by mid-1943 it was clear that land battles on the Western Front and in the SWPA were won or lost, at least on the American and British side, by infantrymen and artillerymen, and aviators who supported their brothers on the ground. During the war, American TD fought in only one battle — at El Guettar in Tunisia in the spring of 1943

— such as the 1941 doctrine and exercises envisioned. The paucity of targets for TD forces, and the conflicting guidance on their employment, led commanders toward “tacitly rejecting tank destroyer doctrine altogether.”<sup>7</sup> They broke their TD battalions into companies and platoons and attached them to infantry battalions who used them for direct fire missions against enemy infantry and entrenched positions. By 1945, the Army acknowledged,

“the separate tank destroyer arm is not a practical concept on the battlefield. Defensive AT weapons are essentially artillery. Offensively the weapon to beat the tank is a better tank.”<sup>8</sup>

The question thus becomes: what can the FA branch learn today from the Army’s experience with building TD doctrine in the months leading to World War II? The TD debate suggests that we should measure carefully the threat we face, and not get too far over our toes with new doctrine that drives us to assumptions and rash decisions about battlefields whose shape and nature we can only vaguely predict. The TD experiment in the 1941 Maneuvers seemed to offer an easy lesson, indeed a panacea, to the tactical and operational-level problems that Blitzkrieg presented. But, in the end, field commanders in the cauldron of battle “stuck with what they knew,” and they probably would have preferred the Army devote the resources it spent on TD to more large-caliber FA such as the M114 155 mm howitzer, or accelerating the development of an American heavy tank. The heavy M-26 Pershing with its 90 mm cannon, the replacement for the medium M-4 Sherman and its 75 mm gun, was not available, for instance, until 1945, at the end of the war. This is by no means to discount the challenges the Army will face on tomorrow’s — or tonight’s — battlefield, or the many difficulties in transitioning from a decade-and-a-half of COIN to LSCGO against a peer competitor. But if history teaches anything, it’s that sometimes the newest, shiny things won’t stand the test of time. The “old ways of doing things” became old because they worked. Field artillery, for good reason, has been, is, and will remain the King of Battle!

*Dr. John Grenier is the Field Artillery School/Field Artillery Branch Historian. He had extensive experience as a doctrine writer during his 20-year military career.*

<sup>7</sup> Gabel, *Army GHQ Maneuvers of 1941*, 191.  
<sup>8</sup> *Ibid.*, 192.