

# BLITZKRIEG

## And the Operational Level of War

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### Introduction

The introduction of the internal combustion engine into the military at the beginning of this century changed warfare in a fundamental way. Mobility and mounted warfare took on a whole new meaning. The ability to use the engine to power all sorts of vehicles caused military theorists to compete in developing the best way to employ this new way of waging war. In the previous two thousand years, only the advent of gunpowder had such a revolutionary effect.

### Blitzkrieg - The Theory

After WWI, which proved to be a bloody experiment for the proponents of tanks, there was rigorous debate in every country that was a major power about the proper employment of motorized and mechanized forces. One man eventually dominated the debate — Heinz Guderian.

He had a friendly face with piercing eyes and a close-cropped, graying mustache. He had a lopsided smile with a dimple in one cheek when he smiled — which was not often. It was said of him that he was a difficult officer to work with, a poor listener, critical and direct to those (even his superiors) who disagreed with him, and that he had little feeling or tact. Yet, at the same time, he was imaginative, analytical, energetic, and tenacious.<sup>1</sup> Heinz Guderian had originally been an infantry officer. In January 1922, Guderian was appointed to the Motorized Transport Department of the German Army as a captain. For the next 15 years, Guderian studied, analyzed, experimented, reasoned, and finally developed a concept for using mounted forces to win campaigns.

What was Blitzkrieg, as envisaged by Guderian? Everyone has their own version. Len Deighton, in *Blitzkrieg*, focused on the materiel side, listing infiltration tactics, tanks, and the radio as the three vital components.<sup>2</sup> Bryan Perret lists tanks, the use of air power, the indirect approach, effort aimed at a strategic objective, with the “keystone” of blitzkrieg being a breakthrough with pursuit of the routed army until its will to fight had been broken.<sup>3</sup> Of course, both Mr. Deighton and Mr. Perret, as well as many other authors who have written on the subject, are correct in some aspects. But because of the fascination with the material side, analysis often gets bogged down on tactics. Many writers focus on how the panzer division conducted business. This approach, I think, misses a major component of the blitzkrieg philosophy — which is at the operational level of war.

### Guderian's Concept

Guderian's refined ideas were published in 1937 in *Achtung - Panzer!* This is a remarkable book, and is must reading for every armor officer. His true genius was demonstrated by his conceptualizing how tank and motorized forces could bring about tactical victory “and then exploit it into the operational dimension.”<sup>4</sup> He placed great emphasis on this basic theme.<sup>5</sup> Winning rapidly in the operational dimension was a must because of the economic stress of warfare. Guderian viewed mounted warfare as a “means to bring an armed conflict to a rapid and tolerable end.”<sup>6</sup>

Guderian's basic principles for employment of tank forces were:

- Surprise - attained through speedy and well-concealed movements, or new technology.
- Deployment *en masse* - the concentration of tank forces where we seek to gain the decision.

- Suitable terrain - enough to allow the tank forces to move through it in sufficient breadth and depth.

Guderian also pounded away at several other main points. He stressed combined arms in mounted units. He believed all combat arms necessary to support the tank formations had to be mechanized or motorized and able to move at the same speed. This brought about the forming of panzer and panzergrenadier divisions which were, at least in theory, completely mounted.

His writing strongly stresses the use of joint air-ground operations. He repeatedly emphasizes the use of close air support in halting or delaying the movement of enemy reserves. He also repeated a Sheridan theme — that the maneuver of mobile forces, now mounted in tanks rather than on horses, should not be tied to the infantry and artillery:

*“Tanks will lose the capacity to concentrate on the decisive spot if they are incorporated as organic elements of all the infantry divisions...The possibility of speed is killed stone dead, and we forfeit all real hope of attaining surprise and decisive success in combat... We will...lose thereby the means of exploiting at speed any successes on the part of the first echelon. We will grant the enemy time to bring up reserves, re-establish themselves in rearward defenses, beat off our enveloping movements, and concentrate for counter-attacks.”<sup>7</sup>*

Of course, by concentrating tanks *en masse* for the breakthrough and **exploitation**, moving them deep into the enemy rear at speed, the enemy does not have time to commit reserves, construct new defensive positions in depth, or launch counterattacks. Guderian predicted this would result in operational level success. It is interesting that Ger-



Panzers in Poland. Guderian's concept — the use of armor penetrations to break through and paralyze enemy command and control — was further developed in France in 1940, when the numerically inferior Germans quickly defeated the French and the British.

man panzer leaders, such as Guderian and Von Thoma, routinely favored lighter, faster tanks with longer ranges (able to go deeper and faster in penetrations to the operational level) for the main armor force.<sup>8</sup>

Guderian was somewhat vague on what would be the principal target of the mounted forces. Given the raging debate going on at the time, he probably did not want to tie himself down. At one point, Guderian suggests the tanks are meant to “execute deep breakthroughs aimed at reaching the enemy command centers and reserves and destroying the hostile artillery.”<sup>9</sup> At another place, Guderian adds in the necessity of victory over the enemy anti-tank defenses and tank reserves as the gateway to a pursuit. At still another point he lists the tank forces’ “principal foes” as hostile tanks, antitank guns, and artillery, in that order.<sup>10</sup> But then Guderian returns to his theme of having an impact at the operational level:

*“One could imagine how at the beginning of a war the armored forces could strike at vital enemy airfields or other relevant objectives close to the border; again, after successes on the ground at a later stage of the war, the tactical aircraft, airlanding troops, and tank forces could be assigned common objectives deep in the enemy rear, with the aim of breaking the enemy’s power of resistance with the least loss of life. This is a concept of warfare which has so far received little attention.”<sup>11</sup>*

Thus, “blitzkrieg,” in Guderian’s mind, was a mounted force centered on the tank (supported by mounted infantry, ground attack bombers, and mobile artil-

lery), used to break through enemy defenses with mass and speed, and then exploit to break the enemy’s will, resulting in **operational level** victory. Indeed, Guderian’s subtitle for the book was “The Development of Armored Forces, Their Tactics and **Operational Potential.**” (emphasis added)

#### The 1940 Campaign in France

We all know the story of how the German Army ran roughshod over France in 1940. This campaign was certainly conducted very close to Guderian’s blueprint for success. This campaign gives us a stark comparison of two ways to employ mounted forces.

The Germans adhered to Guderian’s principle of mass. The Germans attacked with 2,400 tanks and around 2,600 aircraft. The French and allies defended with approximately 3,400 tanks and 1,700 aircraft. The Germans concentrated their armored units into compact, all-mounted forces with five of the ten available panzer divisions concentrated in a Panzer Group (two corps) at the main point of attack. These divisions were followed by three motorized infantry divisions. The French and British frittered away their tanks by scattering them among the infantry corps, for the most part. Of the 3,400 tanks available, about half were penny-packeted in battalions to the infantry, one quarter were formed in cavalry divisions for security missions, and the remaining quarter were formed into small tank divisions.<sup>12</sup> Even this small tank reserve was not under a corps headquarters.

The Germans also achieved surprise. The French, much like the Americans four years later, negligently ignored many intelligence indicators of an as-

sembly of German forces in the area of the main attack.<sup>13</sup> They were banking on the assurances of the French Intelligence Service that they would give the Army 24 hours warning of any invasion.<sup>14</sup> And one aspect of the surprise was the terrain considered by the Germans to be suitable for a large armored thrust. The attack came through a “no-go” area — the Ardennes. The French had declared this region “impenetrable.”<sup>15</sup> In the German planning process, however, Guderian had personally certified the area as feasible for the maneuver of the armored forces. Another aspect of the surprise was the use of airborne and airlanding units in surprise pre-invasion assaults on key enemy positions.

Further, the Germans directed their main attack so as to avoid the most strongly held portion of the French position — the Maginot Line to the south of the intended decisive point. It also avoided the area in Belgium to the north where the Germans expected the Allies to advance and occupy defensive positions. The main effort of the attack came in the middle, against Sedan, which the Germans knew was the boundary between two second-class divisions. This was an operational level weak point. And although the invasion planners were not counting on political turmoil in the allied governments to aid them, the launching of the attack happened the day after both the English Prime Minister, Neville Chamberlain, and French Prime Minister, Paul Reynaud, had offered their resignations.<sup>16</sup>

#### The Mechanisms of Defeat at the Operational Level

The employment of the German panzers clearly resulted in the rapid, operational-level victory promised by Guderian. What were the mechanisms of defeat in the way the exploitation and pursuit was carried out by the panzers? There were both **physical and psychological** effects which reduced, and eventually broke, the enemy’s will and capability to carry on the fight.

#### Physical Effects

There were two significant physical effects. The first is **isolation**. The penetration by the German main effort was designed to go all the way to the coast and thereby cut off the allied forces in Bel-

gium. These isolated units would be destroyed in an attack from the rear,<sup>17</sup> while the French reserves to the south were prevented from massing by spoiling attacks by forces on that flank of the penetration. Then, after defeating these isolated units, France would be on its own. This plan was strikingly similar to Napoleon's "central position" concept. It was key that the penetration occur quickly, preventing the two allied wings from reestablishing ground lines of communication with each other. It also cut lines of communication within the French Army on the southern flank of the penetration.

After the penetration by the massed mounted units of the German Army, there was no delay or slowing. Just the opposite occurred — the pace of the maneuver quickened. The average rate of advance was about 30 miles per day, with some units achieving a staggering 60 mile advance.

The second physical effect is **exposure and destruction/displacement of command, communication, logistics and other "soft" assets**. By penetrating faster than the defending Army could prepare a cohesive defense in depth, all of the "soft" targets and installations necessary for an army to function were continually subject to direct attack by tanks, infantry, and dive bombers. These soft targets include logistics sites, command posts, transportation assets, and airfields.<sup>18</sup> The exposure to direct attack caused these soft targets to be destroyed, or to continually be displaced, which greatly reduced their effectiveness. It is very clear that it was the intent of the German plan to destroy the isolated allied units in the north by attacking their vulnerable rear areas and destroying or cutting them off from their ports.<sup>19</sup> Thus, the "target" of the penetrating mounted units was the "soft" assets of the Allied units in Belgium.

Rommel reported that French soldiers from artillery and supply units "tumbled headlong into the woods at the approach of our tanks..." Such units cannot provide fire support or supply hard-pressed combat units. The displacement led to destruction as the panzer troops fired on the move, destroying military vehicles, and sending soldiers and civilians alike into "wild flight."<sup>20</sup> Artillery units disappeared without ever firing a shot after unexpected encounters with Rommel's tank columns.

When the Allied air assets were forced to displace, their usefulness eroded quickly as secondary airfields were not

as good as the original airfields, and the transportation and supply organization were not quite up to the task.

### Psychological Effects

*FM 100-5* apparently defines "shock" to mean firepower, armor, and speed.<sup>21</sup> Yet, shock emanates from the psychological makeup of soldiers, not the physical. It was the psychological effect of the German attack which caused the French will to fight to "spring a leak," then gush, then flow away as a raging torrent. What sprung the leak was the fear in the hearts of those soldiers at the "soft" targets — the artillery gunners, the truck drivers, the headquarters personnel — of having to undergo an attack from tanks with no real means of defense.

The decisive point in the campaign occurred shortly after the assault crossing by the infantry at Sedan. A colonel from the French corps artillery in the area issued a report that he was displacing his headquarters and some heavy batteries to the rear and that "German tanks were arriving" as he was moving out.<sup>22</sup> This officer's rumor spread like wildfire. An officer from a French infantry unit in depth then witnessed:

*"A wave of terrified fugitives, gunners and infantry, in transport, on foot, many without arms but dragging their kitbags, swept down the Bulson Road. 'The tanks are at Bulson!' they cried. Some were firing their rifles like madmen... Gunners, especially from the corps heavy artillery, and infantry soldiers from the 55th Division, were mixed together, terror-stricken and in the grip of mass hysteria. All these men claimed actually to have seen tanks at Bulson and Chaumont... Panic brooked no delay; command posts emptied like magic."<sup>23</sup>*

In fact, no German tanks were actually in that area, although they were preparing to cross the Meuse.<sup>24</sup> This "leak" quickly impacted the French center of gravity — its artillery. For 150 years it had been the case that if the guns stood fast, the Army stood with it. When the guns pulled out, so did the rest of the Army. The hysterical mob grew and grew as the word spread that the guns had pulled out. The rumors became worse. Everyone started spreading reports of panzers in the rear areas. Command posts displaced without warning their subordinate headquarters. Officers began assuming there was a general withdrawal and issuing orders to pull

out. Communications centers were abandoned. Demolitions were triggered prematurely. Jittery infantrymen shot first without confirming targets, resulting in fratricide. All this displacement, of course, took place on the road, which made these units great targets for the dive bombers and fighters to strafe. Commanders issued conflicting, indecisive orders. This is breaking the enemy's will to fight.

### Blitzkrieg - Refined

For the remainder of WWII, commanders on all sides attempted to emulate the 1940 campaign. There were notable successes — such as Operation Cobra, the breakout from Normandy; the initial stages of the campaign in Russia in 1941; and the Afrika Korps' initial campaigns. There were also notable failures — such as Operation Goodwood, Operation Market Garden, and the Ardennes campaign of 1944. The successes were generally characterized by Guderian's recipe of mass, surprise, and suitable terrain, together with attacking a weak point, exposing "soft" targets to attack, speed in the penetration, and penetration to operational level depths. The failures were caused by one or more of the following: attacking strength or locations where the enemy had positions in depth, failure to have local air superiority, terrain difficulties, or by having a slow rate of penetration (allowing the enemy to maneuver reserves to defeat the attacking units).

### The American Experience

Of course, General George S. Patton, the "Godfather" of the Armor Force and the most successful practitioner at the operational level of using American armored forces, was very much influenced by Guderian's concepts. He read *Achtung Panzer* immediately after the book was translated,<sup>25</sup> along with numerous other books and treatises on German armored doctrine. After the Carolina Maneuvers of 1941, he railed about being "reduced to the speed...of the infantry" by having the Armored Force under the control of an infantry headquarters.<sup>26</sup> His train of thought on the use of armored forces, expressed prior to his involvement in WWII, mirror Guderian's concepts in many ways:

- 1940 - The brigade he commanded was "designed to strike and penetrate weak points in the enemy's defensive line; or else to outflank and envelop the enemy's defenses. In either case, the brigade was to destroy enemy command posts, communications centers, supply

dumps behind the front and thereby paralyze the enemy's ability to react."<sup>27</sup>

- 1940 - Patton addressed a lawyers' club in Columbus, Georgia and noted that once a defensive line is pierced, tanks poured through the hole in order to "give the enemy a spanking from behind. You can kill more soldiers by scaring them to death from behind with a lot of noise than you can by attacking them from the front."<sup>28</sup>

- 1941 - He wrote an umpire for an upcoming war game: "...the primary function of an Armored Force is to disrupt [enemy] command, communications, and supply."<sup>29</sup>

Our opponents, the Germans, gave Patton high marks for his skill in mobile warfare. Von Mellenthin praised Patton as a commander "who thoroughly understood the character of armored warfare..."<sup>30</sup> Rundstedt said Patton and Montgomery were the two finest commanders he dealt with.<sup>31</sup> But while Americans had a "keen sense of mobile action,"<sup>32</sup> the American leaders at the operational level, including Patton, did not "mass" their armored divisions for any operation. Even Operation Cobra, which most historians view as a massing of armor, was a relatively small operation in terms of mobile units taking part in the penetration. The final plan called for three non-motorized infantry divisions to make the initial penetration, followed by two armored divisions and one motorized infantry division completing the penetration and exploitation. This pales in comparison to the concentration of armored forces by the Germans in 1940 and during the Ardennes campaign of 1944.

Operation Cobra was not even designed to result in a successful campaign upon completion — it was merely to set the stage for further exploitation. By way of mitigation, it must be said that this concentration of forces was certainly powerful compared to the opposing forces, especially when enhanced in combat power with air power and sustained artillery bombardment. And, the impact of the three mobile divisions used in the exploitation was very great, and far out of proportion to the number of battalions involved.

Patton and other operational leaders have been criticized for failing to mass armored units. The U.S. Army in France habitually assigned one armored division and two infantry divisions in each corps. There were no armored corps formed, which is clearly distinguished from the German practice. The German battle

studies at the end of 1944 attributed this organization to an abundance of caution and hypermethodical thinking.<sup>33</sup>

This demonstrated a tendency on the part of Americans to think at the tactical level when employing mobile units. Corps commanders parceled out the combat commands of their armored divisions for independent attacks. This, in turn, resulted in dramatic tactical success — such as CCA and CCB, 4th Armored Division in the encirclement of Nancy — and a failure to turn the tactical successes into operational level victory because of a lack of mass. The "broad front" strategy must also be labeled as a culprit in encouraging this organization. The Germans felt that American armor usage had deteriorated by the end of WWII, as compared to the breakout by mobile units during Cobra. Von Mellenthin commented on the use of armor in the Lorraine campaign:

*"I think that Patton would have done better if the 4th and 6th Armored Divisions had been grouped together in a single corps, reinforced possibly by the French 2nd Armored Division. These were all very experienced formations and were ably commanded... I think the Americans made a grave mistake in coupling their armored divisions too closely with the infantry; combined as a tank army under one commander, these three armored divisions might well have achieved a decisive breakthrough."*<sup>34</sup>

Apologists for this employment of armor will contend that the high degree of truck transportation available to the normal infantry division prevented it from being a "drag" on the armored divisions. Yet, a number of incidents occurred where the "drag" effect or parceling hampered the effectiveness of the mobile divisions.

Surprisingly, Patton did not regard mass, in the literal sense, as a requirement. To him, a "charge" with tanks, especially against a defense with antitank weapons, was "futile and suicidal."<sup>35</sup> The widespread belief that the function of the armor division was to attack and destroy the enemy was "erroneous."<sup>36</sup> Like Guderian and Von Thoma, he viewed the armor force getting into the enemy rear by attacking a weak point, and then disrupting the command and supply systems. What was critical was not so much that the armored units move or attack together, but that they have impact at the decisive place at the proper time. In this sense, he was somewhat in accord with

the Guderian approach march technique whereby the attacking armored units start in dispersed assembly areas, move forward towards the enemy "front line," then converge on a breakthrough point. Thus, Patton was more like Stonewall Jackson — able to move **everyone (no matter whether they were mounted or dismounted)** faster — rather than J.E.B. Stuart or Phil Sheridan who massed their cavalry.

The American experience in WWII resulted in discarding the concept that the tank was an offensive weapon not intended for defensive combat against other tanks.<sup>37</sup> The inability to find a feasible way to employ tank destroyers led to their phasing out. From that point forward, it has been the U.S. Army mindset that the best and primary antitank weapon is another tank. This resulted in a "heavying" and upgunning of the American tank fleet.

## Conclusion

The end of WWII led to a great deal of study and debate about the future of the armored forces. This period proved that mounted combat units, when used correctly, were the dominant force in warfare. They were the campaign winners. In the coming years, their dominance would be tested in a wide variety of terrain and modes of warfare.

## Notes

<sup>1</sup>Cooper, *The German Army 1933-1945* (Bonzan Books, 1984) p. 153.

<sup>2</sup>Deighton, *Blitzkrieg* (Ballantine Books, 1980) p. 119.

<sup>3</sup>Perret, *A History of Blitzkrieg* (Jove Books, 1983) pp. 1-41.

<sup>4</sup>Guderian, *Achtung Panzer* (Arms and Armor Press, 1995) p. 190.

<sup>5</sup>Ibid., p. 170.

<sup>6</sup>Ibid., p. 23.

<sup>7</sup>Ibid., p. 169.

<sup>8</sup>Ibid., p. 170; Hart, *The German Generals Talk* (Quill, 1979) p. 94.

<sup>9</sup>Guderian, p. 170.

<sup>10</sup>Ibid., p. 195.

<sup>11</sup>Ibid., p. 206.

<sup>12</sup>Horne, *To Lose a Battle* (Penguin Books, 1988) pp. 217-219.

<sup>13</sup>Ibid., p. 231-5.

<sup>14</sup>Ibid., p. 239.

<sup>15</sup>Ibid., p. 226.

<sup>16</sup>Ibid., p. 239.

<sup>17</sup>Manstein, *Lost Victories* (Presidio Press, 1984) pp.103-123.

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## TRENDS

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<sup>18</sup>J.F.C. Fuller went so far as to advocate the designation and forming of a special mounted unit called a "disorganizing force" which would penetrate to destroy the enemy's headquarters before the main attack was launched. Perret, p. 40.

<sup>19</sup>Ibid.

<sup>20</sup>Horne, pp. 464-5.

<sup>21</sup>FM 100-5 (1993) p. 2-22.

<sup>22</sup>Horne, pp. 347-8.

<sup>23</sup>Ibid., p. 348, quoting French General Ruby.

<sup>24</sup>Horne suggests the tanks were probably French tanks belonging to a reserve tank battalion.

<sup>25</sup>Nye, *The Patton Mind* (Avery Publishing Group, Inc., 1993) p. 119.

<sup>26</sup>Blumenson, *The Patton Papers 1940-1945* (Houghton Mifflin Co., 1974) p. 44.

<sup>27</sup>Ibid., p. 10.

<sup>28</sup>Ibid., p. 16.

<sup>29</sup>Ibid., p. 29.

<sup>30</sup>Von Mellinthin, *Panzer Battles* (Ballantine Books, 1973) p. 375.

<sup>31</sup>Liddell-Hart, *The German Generals Talk* (Quill, 1979) p. 257.

<sup>32</sup>Blumentritt, as quoted in *The German Generals Talk*, p. 258.

<sup>33</sup>Center for Military History, U.S. Army, [H.M. Cole], *U.S. Army in World War II: The Lorraine Campaign* (1984) p. 591.

<sup>34</sup>Von Mellinthin, p. 402.

<sup>35</sup>Blumenson, p. 37.

<sup>36</sup>Ibid., p. 37.

<sup>37</sup>Gabel, *The Lorraine Campaign: An Overview, September-December 1944* (Combat Studies Institute, Feb. 1985) p. 35.

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