



Clausewitz's **SCHWERPUNKT** Mistranslated from German— Misunderstood in English

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Eine Operation ohne Schwerpunkt ist wie ein Mann ohne Charakter. [An operation without Schwerpunkt is like a man without character.]

—Field Marshal Paul von Hindenburg

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PHOTO: German motorized units on the advance in Belgium, May 1940. (Robert Hunt Library)

AS THE U.S. ARMY moves forward in its efforts to transform itself in profound ways, it might be useful for its leadership to reexamine the origins of some concepts that serve as the theoretical underpinnings of current Army and joint doctrine. Among those that should be closely reconsidered is “center of gravity” (COG), a concept widely attributed to Carl von Clausewitz and now regarded as the heart of any sound plan for a campaign or major operation.¹ Even a cursory glance at the military literature of the last 30 years, starting with core doctrinal documents produced by the Army itself, reveals how pervasive and essential the COG concept has become in U.S. operational thinking. Massive amounts of time, energy, ink, and paper have been expended on defining, analyzing, and arguing how the concept should be properly applied within the context of a supposed Clausewitzian paradigm of war. Unfortunately, the major problem with this, at least from a historical perspective, is that Clausewitz never used the term “center of gravity.” Furthermore, he might not have agreed entirely with what that concept now denotes in the American military lexicon.

The term from which the COG concept has been extrapolated, *Schwerpunkt*, really means “weight (or focus) of effort.” In reassessing center of gravity as an underpinning of doctrine, it is important to observe that the original *Schwerpunkt* concept is actually closer in meaning to what the U.S. military now calls the “sector of main effort” and the “point of main attack” (defense). Although the original Clausewitzian rendering of *Schwerpunkt* could, like the COG, encompass both physical and human elements, it is less complicated to identify, but not necessarily to apply, than the U.S. concept of a COG or COGs. In contrast to the modern application of the concept of center of gravity, Clausewitz’s *Schwerpunkt* dealt almost exclusively with the strategic level of war.

The purpose of this essay is to trace the development of the *Schwerpunkt* concept as the Germans understood and employed it (in a manner probably more congruous with Clausewitz’s intent) from Field Marshal Alfred von Schlieffen’s time as chief of the German general staff, through the interwar years, to World War II. We can then compare the German interpretation with its American counterpart to examine the validity of the current U.S. concept of center of gravity. Our investigation will perhaps offer a related but significantly different alternative to the modern COG concept, one that we might use to focus planning for future campaigns or major operations.

The Development of *Schwerpunkt*

Clausewitz used *Schwerpunkt* on several occasions in his seminal work *On War* (see chapter 4, “Closer Definition of the War’s Objective: Suppression

of the Enemy,” of Book 8). In countries subject to domestic strife, he claimed, the *Schwerpunkt* is generally the capital. In the same paragraph he states that “in small countries that rely on large ones, it [*Schwerpunkt*] is usually the army of their protector; among alliances, it lies in the community of interests; and in popular uprisings it is the personality of leaders and public opinion. It is against these that our energies should be directed.”²

When assessing all of these possibilities, one should keep Clausewitz’s ideas on *Schwerpunkt* in context. Ultimately, Clausewitz firmly believed that the destruction or neutralization of the enemy’s forces was the means to final victory. Identifying the *Schwerpunkt* would enable the attacker to effect those means.

Although several German and Austrian theoreticians in the mid- to late-nineteenth century stressed that the enemy capital constituted a *Schwerpunkt* against which one’s efforts should be directed, the understood purpose for dealing with the capital was the same: to threaten or seize it as a means of ultimately destroying or neutralizing the enemy’s armed forces. The theoreticians therefore coined a new term, *Schwerpunktlinie* (“line of weight of effort”)—the shortest, most direct line between one’s own base of operations and the enemy capital. To achieve victory, one’s army was expected to operate decisively along the line of weight of effort and thereby reach its objective faster.³

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Schwerpunkt Evolves

From its original meaning of “weight of effort,” *Schwerpunkt* underwent some subtle but significant changes in the late 1880s and afterward, primarily stimulated by vigorous debate among German theoreticians about whether the introduction of more destructive weapons had rendered large-

scale attack obsolete.⁴ The German problem at the strategic level was the high likelihood of a war against strong opponents on two fronts. A consensus emerged that the weight of effort concept offered the only way to neutralize the absolute strategic superiority Germany’s potential enemies would have. The Germans therefore planned to achieve operational superiority at decisive points on each front as quickly as possible, in order to end the conflict before it could turn into a draining two-front war of attrition.

Few were more influential in emphasizing the essential importance of the weight of effort principle than Schlieffen.⁵ He had concluded that because of the advent of million-man armies and the increased lethality of new weapons, the front line would inevitably be extended and continuous. This meant that the attacker could hope for success only if his forces were deployed in a timely manner in depth and at precisely the right place—at the decisive point.⁶ Schlieffen believed that ruthlessly weakening one’s forces at some parts of the front line and concentrating one’s forces at a point where a decision could be gained were prerequisites for success. Decisive operations would be conducted where the enemy was weakest and no enemy attack was expected.⁷ Schlieffen’s influence was mainly responsible for the German emphasis on incorporating *Schwerpunkt* at both the operational and tactical levels of war.

The Germans further refined the concept of weight of effort between the two world wars.⁸ The Reichswehr’s field regulations in the early 1920s stipulated that any attack must have its weight of effort, which must be emphasized in an operation order.⁹ Under General Ludwig Beck, chief of the army general staff from 1935 to 1938, thinking shifted to the question of how to conduct penetration and envelopment maneuvers using *Schwerpunkt* as a guiding principle. Factors to consider in planning a decisive penetration maneuver included the enemy’s disposition, the nature of the terrain, and the effective employment of one’s forces.¹⁰

Selecting the Schwerpunkt

The most important document for the initial phase of a campaign was what the Germans called *Aufmarschanweisungen* (“deployment instructions”). This document clearly spelled out both the boundaries

and direction of the Schwerpunkt and stipulated the need to concentrate one's forces to support it. Thus, forces in other sectors had to be reduced in favor of the selected course of action.¹¹ It was also understood that commanders at all command echelons were principally responsible for selecting their own Schwerpunkt, although senior commanders, where it was appropriate, retained the prerogative to designate their subordinates' weight of effort.¹²

Commander's intent. The main factors in selecting the weight of effort were the commander's intent (*Absicht*), the enemy situation, and the terrain.¹³ (See Figure 1). The intent provided the higher commander's vision of an operation's end-state. Under the German system, the commander's vision was virtually sacrosanct; however, doctrine stipulated that in the execution of a mission, each subordinate commander should be given freedom to act within the boundaries of the overall commander's intent.¹⁴ To balance the commander's vision against flexibility of action, subordinate commanders were required to evaluate all their planned actions in accordance with the higher commander's intent.¹⁵ In general, the commander's intent promoted unity of effort in a fluid situation that failed to conform precisely to one's plans and expectations. The intent both circumscribed and encouraged the exercise of initiative by subordinate commanders.¹⁶

In the Wehrmacht, the commander's intent did not simply reiterate the scheme of maneuver; rather, it encouraged subordinate commanders at lower levels to think and act faster than the enemy and to seize the initiative. Every commander was required to understand the commander's intent two echelons above his level of command. This was necessary to enable decision making when the higher commander could not be reached in time for further guidance.¹⁷

Enemy situation. Although multiple factors came into play in determining the Schwerpunkt, by far the most important was the enemy situation. The German approach was to thoroughly analyze their own and the enemy's situation before deciding on a weight of effort and formulating courses of action. Ground and air reconnaissance were critical for gaining accurate and reliable intelligence on the enemy's actual deployments.

Terrain. Terrain was another important planning consideration. In selecting the ground for the

weight of effort, the Germans believed that the most valuable terrain points were those that controlled the enemy's positions over a large area and that could exercise an immediate effect over adjacent parts of the enemy forces.¹⁸ Other important terrain considerations were the number of lines of communication an area had and whether the site could be approached along concealed routes.

It must be said, however, that ease of trafficability was hardly the deciding factor in the selection of a weight of effort. The Germans always balanced the disadvantages of using relatively few and unfavorable lines of communications in the area against the advantages of achieving operational surprise.¹⁹ In fact, in planning the invasion of France in 1940, the Germans opted for surprise in the Ardennes versus ease of movement and concentration in Belgium and Holland.

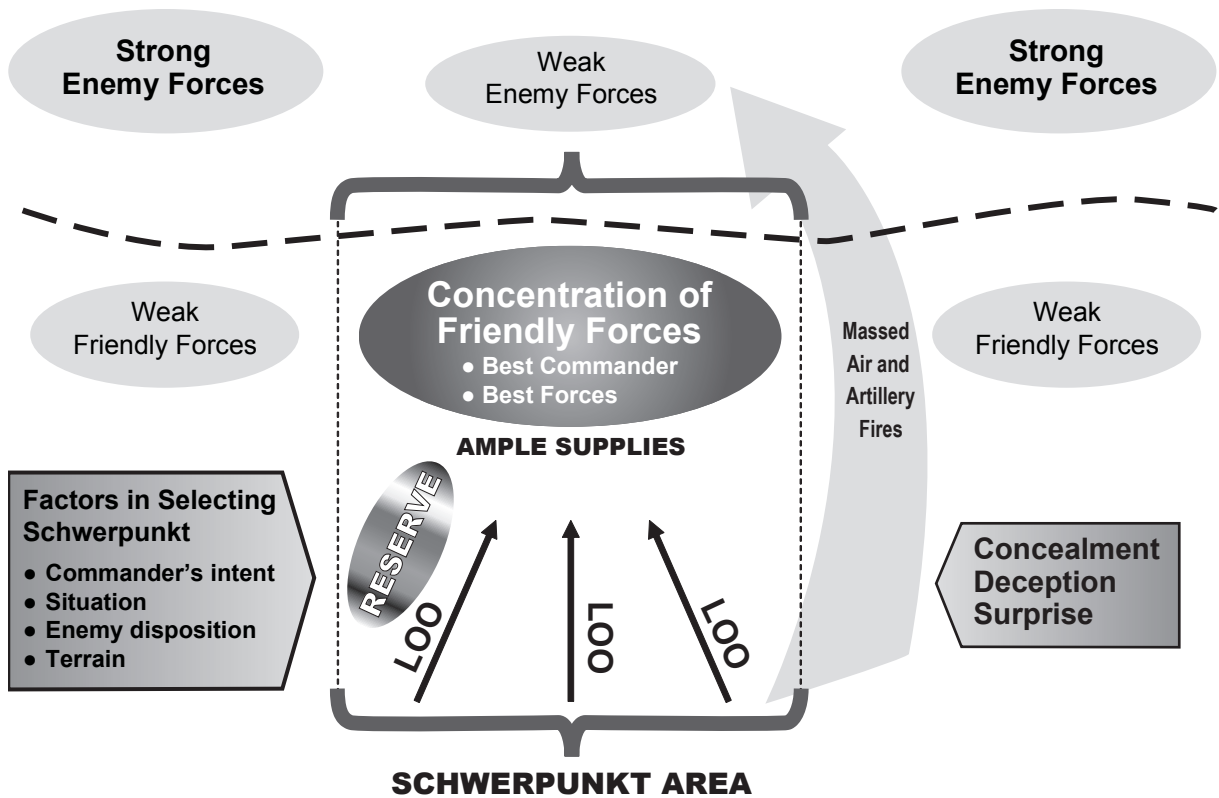
Also weighing heavily in selecting the location of the weight of effort were the ability to employ attack aircraft and mechanized forces en masse and to use artillery in a decisive role.

Parsing Schwerpunkt

The lateral width of the weight of effort was called the *Schwerpunktabschnitt*, and it was expressed in terms of its length in kilometers. *Schwerpunktraum* was the staging area running in depth behind the front lines. It had to be deep, to permit steady reinforcement of the forward forces after penetration was achieved. The Germans emphasized that local superiority at the weight of effort would be created by selecting narrow "combat strips" (*Gefechtsstreifen*) and then nourishing one's attack from within one's depth.²⁰

Schwerpunkt in the Attack

In planning an attack, the Germans aimed the weight of effort (*Angriffsschwerpunkt*) where they believed the enemy had his weakest forces, either in numbers or in terms of quality. Of constant concern was the danger that the enemy might deduce German intentions from the buildup of forces at specific locations and take prompt countermeasures. Hence, the Germans emphasized that the prerequisites for success were to act without warning and to move one's forces swiftly while preserving secrecy and deceiving the defender.²¹ The German plan for Operation Yellow, the invasion of France



Schwerpunkt (weight of effort) in the attack.

in May 1940, was a model of Schwerpunkt planning. It correctly posited the weight of effort at the Meuse River between Sedan and Dinant, a crucially important sector defended by only seven mostly second-rate French divisions.²²

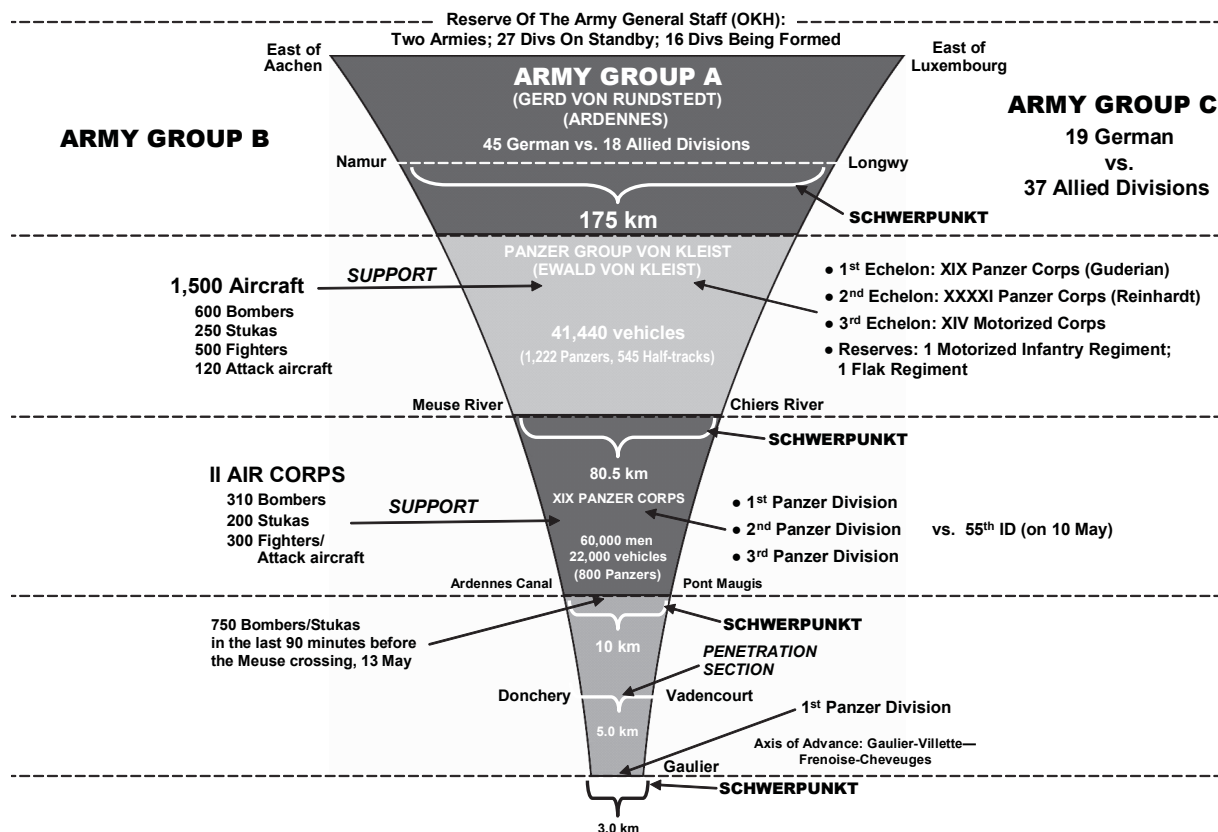
In planning an attack, the Germans also tried to determine the boundaries between two adjacent enemy forces and place their weight of effort at that particular sector of the front. For example, in late December 1944, in Operation *Wacht am Rhein* (Watch on the Rhine), which led to what is popularly known by the Allies as the Battle of the Bulge, the Germans selected their Schwerpunkt in the sector containing the boundary between the British and U.S. armies.²³ The weight of effort of the entire operation was between Monschau and Echternach, selected largely because that area was thinly occupied by Allied troops in comparison to other sectors. The German commanders believed that they faced the 1st U.S. Army, with 8 infantry and 3 armored divisions. (Actually, only 5 U.S. divisions and part of an armored division, totaling 83,000 men and 400 armored vehicles, were deployed in the 62-mile-long Monschau-Echternach sector.)²⁴

Schwerpunkt in the Defense

In the defense, the Germans stipulated that the weight of effort should be designated opposite the enemy's weight of effort. In other words, the enemy's deployment and the commander's intent determined the ground one would defend.²⁵ In conducting a delaying defense, the Germans would try to select the weight of effort in an area that forced the attacker to canalize his forces in a narrow, deep strip containing obstacles.²⁶

Schwerpunkt within Schwerpunkt

In a campaign, the Germans determined weight of effort at each level of command, from the army group down to the tactical force. Thus, there were multiple Schwerpunkts within the weight of effort of an army group, an army, or an army corps. For example, among the three army groups deployed for Operation Yellow, the weight of effort fell to General Gerd von Rundstedt's Army Group A (4th, 12th and 16th armies and Panzer Group von Kleist), deployed along a 100-mile front behind Namur and Longwy. Within this army group a subordinate



Schwerpunkt within Schwerpunkt: Operation Yellow, May 1940.

weight of effort was Panzer Group von Kleist (XXXI Panzer Corps, XIX Panzer Corps, and XIV Motorized Corps). This force had 5 of the 10 panzer divisions then available to the Germans (2 other panzer divisions were assigned to the 4th Army) and was deployed behind a 50-mile stretch of the Meuse and Chiers rivers at 3 locations.²⁷ The weight of effort for General Heinz Guderian’s XIX Panzer Corps (3 panzer divisions), with 60,000 men and 22,000 vehicles, was the 6.2-mile-wide sector between the Ardennes Canal and Noyers-Pont Maugis. Guderian, in turn, selected the 3.1-mile-wide sector between Donchery and Vadencourt as the weight of effort for his 1st Panzer Division.²⁸

The selection of each Schwerpunkt was determined based on what was felt to be a complete and accurate reconnaissance of the terrain and the enemy’s forces deployed in the area. In making such determinations, commanders not only had to study maps of the area, but were also required to reconnoiter the terrain themselves and be informed of the results of patrols in that area. It was considered a significant and particularly dishonorable error when

forces were deployed improperly because the commander lacked sufficient information on the enemy order of battle or the terrain.²⁹

Force Distribution under Schwerpunkt

As history attests, the Germans often selected the proper weight of effort and assigned sufficient forces for the task. In other cases, however, either adequate forces were not available or the higher commander made a wrong decision in distributing his forces to support the Schwerpunkt. For example, in his famous memorandum for possible war against France in 1905, Schlieffen may have properly distributed German forces between two wings (though it now can only be left to conjecture). He apparently intended the right flank to be as strong as possible while remaining on the defensive in Alsace and Lorraine. Schlieffen therefore envisaged a force of 23 army corps, 12 and a half reserve corps, and 8 cavalry divisions advancing through Belgium into northeastern France. The pivot of the maneuver was to be in the area of Metz-Diedenhofen (Thionville).

On the left flank, Schlieffen's plan called for the deployment of only three and a half army corps, one reserve corps, and three cavalry divisions.³⁰ A total of 54 divisions were to be deployed between Metz and Aachen, leaving only 8 divisions in the Alsace-Lorraine area—a ratio of 7 to 1 between the right and left wings of the German armies. Schlieffen's successor, General Helmuth von Moltke Jr., had eight new divisions available for deployment, and, in contravention of the *Schwerpunkt* concept, he assigned them all to the left wing. This changed the ratio of forces between the two wings to 3 to 1, and in doing so probably doomed the German drive into northern France.³¹ Consequently, what the Germans had long feared—a two-front war of attrition—came to pass.

Prior to World War II and Germany's invasion of France and the Benelux countries, the German Army general staff issued "deployment instructions" (19 October 1939) assigning 37 divisions to Army Group B, in contrast to 26 divisions to Army Group A. This decision, too, was a bad one, for the Allies had deployed the largest number of their divisions in the northeast, opposite Army Group B. Ignoring the dictates of *Schwerpunkt*, the general staff had chosen to attack where the enemy was strongest rather than weakest. However, the Germans rectified their error before the invasion by shifting the weight of effort of the entire campaign from Army Group B to Army Group A, in the center, deploying 45 divisions on the Luxembourg border, where the Allies had only 18.³² (To the immediate south, in the neighboring Ardennes, the Belgians had deployed only two weak divisions.) In the area of the weight of effort of Army Group A's Panzer Group von Kleist, the French had deployed the 9th and 2d divisions.³³ The French hastily deployed four cavalry divisions and two cavalry brigades into combat to face Kleist's advancing panzers on 10 May. A full 37 divisions (including one Polish division) were deployed behind the Maginot Line, where they faced only 19 divisions of German Army Group C.³⁴ The rest is history: Army Group A swiftly penetrated the Allied forces in the center, outflanking the Maginot Line and isolating the large Allied force in the north in a pocket. Using the *Schwerpunkt* concept properly, the German Army conquered France in an astonishing 45 days.

Concentration at Weight of Effort

In German theory and practice, each commander was responsible for concentrating his forces at the weight of effort (*Schwerpunktbildung*) in a timely manner.³⁵ This was perhaps one of the most critical elements for the success of the entire campaign or major operation. Among other things, one's forces had to be deeply echeloned in the area of the weight of effort. Thus, the length of the weight of effort had to be relatively short. The selected area of concentration had to allow the concentrated fire of many weapons, ample supplies of ammunition, and strong air support. Another requirement was the creation of sufficient reserves in the area of the weight of effort to exploit combat success.³⁶

In concentrating their forces against an enemy's weakest points, the Germans were careful to ensure that conditions were favorable for a quick and complete penetration. Each commander was responsible for getting his forces to the attack area in a timely manner, and then arraying them in depth along a narrow front, so as to afford the maximum concentration of troops at the point of enemy weakness. During deployment, surprise was important, too. Using speed, mobility, terrain, and the cover of night, commanders were expected to maneuver their units into their assault positions without alerting the enemy to the impending attack, thereby precluding the enemy from reinforcing the area targeted for *Schwerpunkt* and ensuring that the odds remained stacked in the Germans' favor.³⁷

Best units in the lead. It was also important that the higher commander, whenever possible, assign his best commander and troops to the weight of effort. That said, the Germans realized that the best troops would not always be available or, even if they were, other considerations might preclude their use. The best units might be deployed too far from the selected area to arrive in time for the attack, or they might be decisively engaged in combat elsewhere. In some cases, morale might suffer if the higher commander gave clear preference to one of the forces under his command.³⁸ In practice, *Schwerpunkt* had to be flexible.

Weighted support. To ensure initial success and to facilitate the forward momentum of the weight of effort once it was underway, the Germans took pains to provide additional artillery fires, heavy air support, and extra radio communications to the

weight of effort. Because of expected high rates of consumption, commanders had to make the necessary coordination for extra stocks of ammunition. Some German theoreticians, however, believed that it was wrong to concentrate artillery too much in the sector of the weight of effort, because the enemy could draw the correct conclusion and make timely preparations for his defenses.³⁹

Favorable terrain. One of the most important factors for successful concentration at the weight of effort was terrain. As indicated earlier, if planners had done their job properly, and if the situation allowed, the selected terrain would offer a number of lines of communications leading to the concentration site. An area with many longitudinal and lateral roads and railroads was most desirable because it allowed more flexibility in moving forces to the concentration area.

More lines of operations could also equate to faster concentration and exploitation of a penetration. In practice, of course, such optimal conditions weren't always available. In the May 1940 campaign, Panzer Group von Kleist, the main German force designated to break through the Belgian and French defenses in the Ardennes, had to move from the German border to the Meuse River, a distance of about 105 miles. Kleist's columns were forced to travel along narrow and curving roads 31 miles through Luxembourg, 62 miles through Belgium, and 6.2 to 12.4 miles through French territory to the Meuse River. The Germans planned to reach the Meuse in three days and to cross it a day later. The theoretical length of Kleist's columns—composed of 41,140 vehicles, including 1,222 tanks and 545 half-tracks—was about 960 miles. Army Group A, however, assigned Kleist's forces only four roads totaling in length about 250 miles, and it denied a request for the use of at least one more road.⁴⁰ Despite the poor trafficability, Panzer Group von Kleist achieved its objectives.

Employment of reserves. The principal means of influencing the course of combat at the Schwerpunkt was through deployment of the reserve. In an attack, the reserve could be used to shift the weight of effort or to protect the flanks and rear.⁴¹ In a campaign or major operation, an operational reserve could be used to strengthen the attack or defense in the sector of main effort at the most decisive moment, to ward off enemy counterstrikes, or to

meet other unanticipated contingencies.⁴² Normally, reserves were deployed in the rear of the selected section of the weight of effort.⁴³

Surprise. The principle of concentration at the weight of effort was closely linked to the principle of surprise. The Germans invariably tried to surprise the enemy by maintaining strict secrecy regarding their plans and the movements of their forces, particularly at the weight of effort. In the invasions of France in 1940 and the USSR in June 1941, and in the Manstein counteroffensive in southern Russia in March 1943, panzer and motorized forces were initially held far in the rear of the envisaged attack area. Their relative concealment, combined with the enemy's belief that such forces could not move to the attack area quickly, contributed considerably to the eventual success of these operations.⁴⁴

The Germans invariably planned diverse measures of operational deception prior to the start of a campaign or major operation. In 1940, they prepared and executed elaborate plans to deceive the Allies about the location of their weight of effort. In the first three days of the invasion, they used most of the Luftwaffe's bombers and the much-feared Stuka dive bombers in Army Group B's area, carrying out extensive attacks against targets in northern Belgium, the Netherlands, and the French interior. The relatively few Luftwaffe fighters in the Ardennes were mostly employed against Allied reconnaissance aircraft.

The Germans also used propaganda very effectively to conceal their operational intent. Army Group B's successes were highly publicized, whereas the activity of the German forces around Sedan was barely mentioned in the German press. Ironically, this actually had an adverse effect on the morale of the troops in the Sedan area, because their exploits were not publicly acknowledged.⁴⁵

The German airborne forces also had a role in the deception in May 1940. Tactically, their assaults into northern Belgium and the Netherlands supported the maneuver of Army Group B, but operationally they were undertaken to make the Allies think that the German weight of effort was in the north, not the center. In fact, the spectacular actions of the German paratroopers against fortress Eben Emael had a hypnotizing effect on the top Allied military commanders, who became exclusively focused on what was happening in the northeast. This fixation,

combined with the Luftwaffe's deceptive employment in the north, led to the Allies' fatal decision to move their best troops into Belgium even as German panzer and motorized forces poured through the Ardennes toward the Meuse River. When the Allied commanders realized what the real German weight of effort was, it was too late.⁴⁶

The Germans also took steps to convince the Allies that the pending invasion would reprise the Schlieffen plan of 1914. In the months preceding the actual attack, Admiral Wilhelm Canaris, head of Abwehr, sent many of his intelligence agents to neutral countries and various other places in the world, visiting business friends and attachés to spread rumors that the old Schlieffen plan was to be used again in 1940. These measures were highly successful.⁴⁷

Shift of Weight of Effort

German theoreticians understood that changes in the situation could require changes or shifts in the weight of effort [*Schwerpunktverlegung* or *Schwerpunktverlagerung*].⁴⁸ They stipulated, however, that weakening the weight of effort in favor of some other, endangered, part of the front would be done only in extreme cases. Key above all was to maintain the initiative and offensive momentum of the Schwerpunkt.

In planning their offensive in the west, the Germans drew up four deployment instructions. As we have seen, the first variant of the plan (issued 19 October 1939) assigned the weight of effort to Army Group B in the north. In a new directive dated 29 October, this was changed to two weights of effort (Army Groups B and A). The third version, issued 30 January 1940, had three weights of effort (two in Army Group B's sector and one in Army Group A's sector). Three weeks later, the Germans made their final change, shifting the weight of effort to Army Group A in the center.

With this last alteration, the Germans also changed the force size and mix of their three army groups. The third plan's allocation of 37 divisions to Army Group B and 26 to Army Group A changed to 29 for B and 45 for A, with 42 reserve divisions designated to reinforce Army Group A. More importantly, the Germans assigned 7 of their 10 panzer divisions to Army Group A. As a result, on 10 May, the ratio of forces in the north (Army Group B) was 60 to 29 divisions in favor

of the Allies, while in the central-southern part of the front, in the sector from Namur to Longwy on Luxembourg's border (Army Group A), the ratio was 45 German to 18 Allied divisions.⁴⁹

An unexpected favorable development in the situation during combat also could, or even should, stimulate a shift of the weight of effort. The most effective means to change the weight of effort was to shift the fire of artillery and other heavy weapons and to deploy the reserves.⁵⁰ It was part of the commander's art to recognize and rapidly exploit the enemy's weak points, then shift the weight of effort to a place where concentrated artillery fires could have a quick effect while also shifting the reserves to the newly selected weight of effort.⁵¹

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The Germans exhibited such art in 1940 when they shifted the weight of effort of their Luftwaffe from the northern part of Belgium to the Sedan sector. Fifteen-hundred aircraft, including 600 bombers and 250 Stukas, were assigned to support Army Group A's lead element, Panzer Group von Kleist. In support of Kleist's XIX Panzer Corps, 310 bombers, 200 Stukas, and 300 fighter aircraft of the II Air Corps conducted "rolling barrage" attacks before and during the crossing of the Meuse River. Their weight of effort was the 2.5-mile sector north and south of Sedan. In a then-unprecedented display of air power, about 750 bombers and Stukas attacked the French positions at Sedan in the 90 minutes before the crossing of the Meuse River on 13 May.⁵²

Conclusion

Despite some resemblance to what the U.S. Army generally calls the sector of main effort and the point of main attack (defense), the German concept of Schwerpunkt, or weight of effort, is actually much

more sophisticated. It differs significantly from the concept of center of gravity. Both weight of effort and center of gravity have advantages and disadvantages, but perhaps Schwerpunkt's greatest advantage is that it does not require absolute knowledge of the enemy situation to succeed. In contrast to the center of gravity concept, Schwerpunkt focuses primarily on the employment of one's combat forces at the tactical and operational levels of war. At the strategic level, the weight of effort is applied only in regard to the overall distribution of one's forces among various theaters.

There are some drawbacks to using Schwerpunkt. For analyzing and applying sources of nonmilitary national power to achieve theater-strategic objec-

tives, the concept is inadequate. Also, as the historical examples cited above might suggest, the weight of effort is probably more suitable for attack than defense. Nevertheless, Schwerpunkt is still a very useful campaign planning tool. Not only does it offer a useful alternative to "center of gravity" for planning and executing a campaign or major operation, but it can be applied successfully in any kind of combat—land, sea, or air. In the end, each method—Schwerpunkt and center of gravity—has its advantages and disadvantages. Hence it stands to reason that one should master the theoretical underpinnings of both concepts and be able to apply them according to personal preference and experience. **MR**

NOTES

1. In the strict definition of the term, a center of gravity is "that point of an object around which its weight is evenly distributed or balanced; center of mass; point of equilibrium"; *Webster's New World Dictionary of the American Language*, College Edition (New York: World Publishing, 1960).
2. Carl von Clausewitz, *On War*, ed. and trans. Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 1984), 596.
3. J. Neumann, *Grundzüge der Strategie*. Ein Leitfadens fuer das Studium der Kriegsgeschichte (Vienna, 1870), 8.
4. Erich Brandenberger, *Der Deutsche Generalstab*, ZA/1 1879, 031a, 30, Teil Studien der Historical Division Headquarters, United States Army Europe, Foreign Military Studies Branch, Bundesarchiv/Militaerarchiv (BA-MA), Freiburg, i. Br., 91–92.
5. Karl-Heinz Frieser, *Blitzkrieg-Legende*. *Der Westfeldzug 1940* (Munich: R. Oldenbourg Verlag, 1995), 416.
6. Brandenberger, *Der Deutsche Generalstab*, 91–92.
7. Ibid.; Friedrich von Cochenhausen, "Schlieffen. Zu seinem 100 jaehrigen Geburtstag 28 February 1933," *Militaerwissenschaftliche Mitteilungen* (Vienna) 2 (February 1933), 18.
8. The term *weight of effort* is also used in referring to the focus of one's force planning, diplomatic efforts, policy, and many areas of social life and science.
9. "Mittel und Wege der Schwerpunktbildung" *Militaer-Wochenblatt*, no. 6 (11 August 1931), 207.
10. Brandenberger, *Der Deutsche Generalstab*, 111.
11. Lothar Rendulic, *Entschlussfassung*, MS # D-080a, 9 March 1947, ZA/1 1429, Studien der Historical Division Headquarters, United States Army Europe, Foreign Military Studies Branch, BA-MA, 8–9.
12. "Mittel und Wege der Schwerpunktbildung," 210; and Albert Kesselring, *Kurzvorschrift fuer Fuehrung und Kampf in den Niederen Einheiten*, 1 October 1950, MS # P-060b, ZA/1, Studien der Historical Division Headquarters, United States Army Europe, Foreign Military Studies Branch, BA-MA, 21.
13. "Schwerpunkt," HDv 100/900 VS-NfD, Sch-SEA; "Schwerpunkt," ed. Hermann Franke, *Handbuch der neuzeitlichen Wehrwissenschaften 1, Wehrpolitik und Kriegsfuehrung* (Berlin/Leipzig: Walter de Gruyter, 1936), 649.
14. John F. Antal, "Forward Command: The Wehrmacht's Approach To Command and Control in World War II," *Armor* (November-December 1991): 28.
15. David M. Keithly and Stephen P. Ferris, "Auftragstaktik, or Directive Control, in Joint and Combined Operations," *Parameters* (Autumn 1999): 125.
16. John T. Nelsen II, "Auftragstaktik: A Case for Decentralized Battle," *Parameters* (September 1987): 25.
17. Antal, "Forward Command: The Wehrmacht's Approach To Command and Control in World War II," 28.
18. "Mittel und Wege der Schwerpunktbildung" 208.
19. Peter J. Palmer, *Operational Main Effort and Campaign Planning* (Fort Leavenworth, KS: School of Advanced Military Studies, U.S. Army Command and General Staff College, 1991), 18.
20. Ibid., 209–10.
21. *Handbuch der neuzeitlichen Wehrwissenschaften 1, Wehrpolitik und Kriegsfuehrung*, 212–13.
22. Frieser, 106; Charles R. Gregory, *Operational Reserves—Renewing the Offensive Spirit* (Fort Leavenworth, KS: School of Advanced Military Studies, U.S. Army Command and General Staff College, 6 April 1988), 16.
23. Martin Voggenreiter, "Fruehjahrsoffensive 1918 und Ardennenoffensive 1944," *Wehrwissenschaftliche Rundschau* 12 (December 1964), 746–47.
24. Roland G. Foerster, "The Ardennes Offensive in 1944: Politico-strategic

- Consideration and Operational Planning on the German Side," in *Militaergeschichtliche Forschungsamt*, ed., *Development, Planning and Realization of Operational Conceptions in World Wars I and II*, 85; Danny S. Parker, ed., *The Battle of the Bulge: The German View. Perspectives from Hitler's High Command* (London: Greenhill Books, 1994), 39.
25. "Mittel und Wege der Schwerpunktbildung," 207; Kesselring, 21.
 26. W. Hiller, Vergleich und Bewertung der in der HDv 100/100 (TF/G) und in der Anweisung fuer Fuehrung und Einsatz 700/108 dargestellten Fuehrungsgrundsätze (Hamburg: Fuehrungsakademie der Bundeswehr, 15 November 1985), 15.
 27. Gregory, 14.
 28. Frieser, 191.
 29. "Mittel und Wege der Schwerpunktbildung," 208.
 30. Friedrich von Bernhardt, *Deutschlands Heidenkampf 1914–1918* (Munich: J. F. Lehmanns Verlag, 1922), 98.
 31. Guenter Roth, "Operatives Denken bei Schlieffen und Manstein," in Hans-Martin Ottmer and Heiger Ostertag, eds., *Ausgewahlte Operationen und ihre militaerhistorischen Grundlagen, Operatives Denken und Handeln in deutschen Streitkraefte*, published under the auspices of Militaergeschichtlichen Forschungsamt (MGFA), (Bonn/Herford: Verlag E.S. Mittler & Sohn, 1993), 284.
 32. Frieser, *Blitzkrieg-Legende. Der Westfeldzug 1940*, 105–06.
 33. Panzer Group von Kleist was capable of conducting independent major airland operations; hence, in terms of its capabilities it was equal to an army.
 34. Frieser, *Blitzkrieg-Legende. Der Westfeldzug 1940*, 106.
 35. "Schwerpunkt," HDv 100/900 VS-NfD, 649.
 36. Kesselring, 21.
 37. N. Hanisch, Untersuchen Sie die operativen Ideen Manstein hinsichtlich Schwerpunktbildung, Ueberraschung, Initiative und Handlungsfreiheit an den Beispielen Westfeldzug 1940 (Sichelschnitt-Plan) und Operation Zitadelle (Hamburg: Fuehrungsakademie der Bundeswehr, 15 January 1988), 2.
 38. "Mittel und Wege der Schwerpunktbildung," 209.
 39. Ibid., 209–10.
 40. Frieser, 128.
 41. Hiller, 17.
 42. Friedrich von Bernhardt, *On War of To-Day*, Vol. II: *Combat and Conduct of War*, trans. Karl von Donat, 2 vols. (New York: Dodd, Mead & Company, 1914), 288.
 43. Christian Leggemann, Die taktisch/operativen Ideen Mansteins hinsichtlich Weight of effortbildung, Ueberraschung, Initiative und Handlungsfreiheit (Hamburg: Fuehrungsakademie der Bundeswehr, 4 January 1989), 3.
 44. Wilhelm Willemer, *Camouflage*, ZA/1 2096 P-130, Studien der Historical Division Headquarters, United States Army Europe, Foreign Military Studies Branch, BA-MA, 196.
 45. Frieser, 103–04.
 46. Ibid., 104–05.
 47. Ibid., 103.
 48. "Schwerpunkt," HDv 100/900 VS-NfD, p. Sch-SEA; other related terms include "area of the weight of effort" [*Schwerpunktraum*], "weight of effort in an attack" [*Schwerpunkt des Angriffs*], etc.; Hueth, *US-NfD. Militaerisches Studienglossary Englisch*, vol. 2/3 (Bonn: Bundessprachenamt, January 1993), 1060; "Schwerpunkt," in Franke, 649.
 49. Frieser, 72–73.
 50. Kesselring, 21.
 51. "Mittel und Wege der Schwerpunktbildung," 210.
 52. Frieser, 194–5.