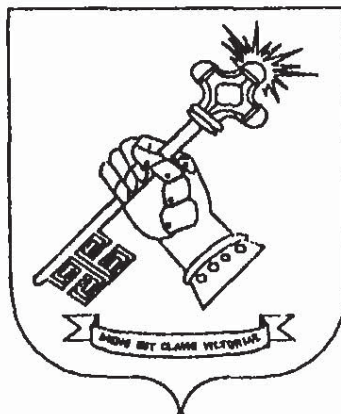


**THE BATTLE OF KONIGGARATZ, 1866
THE EVOLUTION OF OPERATIONAL ART**

**A Monograph
by
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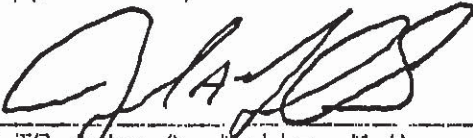
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ABSTRACT

THE BATTLE OF KÖNIGGRÄTZ, 1866, THE EVOLUTION OF OPERATIONAL ART by LTC Charles D. Daves, USA, 40 pages.

The campaign conducted by General Helmuth von Moltke into Bohemia against the Austrians was the most brilliant of that era. The Königgrätz campaign is a classic example of the art of war practiced at the operational level. The Chief of the General Staff, Moltke, is considered an operational genius, probably the greatest ever produced by Prussia. He developed the Prussian campaign plan for the attack into Bohemia which led to the total collapse of the Austrian Army in approximately two weeks. The campaign is a good example of the operational level of war with the ultimate strategic goal of German national unity. Also, the campaign offers an outstanding example of the offense operating on exterior lines and the use of the most advanced technology in the era in every phase of the campaign. With operational art as the focus, the importance of defining a clear operational end state and of balancing the end state with means, ways, and risk will be analyzed.

This analysis includes a discussion of Moltke's application of certain theoretical aspects of operational art: these include exterior lines of operation, center of gravity, offense, decisive battle, and the interrelationship of strategic, operational, and tactical activities.

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1. INTRODUCTION

"The War of 1866," wrote General Helmuth von Moltke, Chief of Prussian General Staff, "was entered in not because the existence of Prussia was threatened, nor was it caused by public opinion and the voice of the people; it was a struggle long foreseen and calmly prepared for, recognized as a necessity by the cabinet, not for territorial aggrandizement, but for an ideal end--the establishment of power. Not a foot of land was exacted from conquered Austria, but she had to renounce all part in the hegemony of Germany." 1 The War of 1866, generally known as "The Seven Weeks War," resulted in the formation of the Northern German Confederation and planted the seeds of a nation which germinated during the Franco-Prussian War of 1870.

For the student of military strategy, Königgrätz is important because it provides the first glimpse of a new style that was to have a great deal of influence upon the European strategical thought in the years that followed. General Helmuth von Moltke played a significant role in developing the Prussian plan of attack against Austria which led to the defeat of the Austrian Army. In the study of operational art Königgrätz has much to offer in terms of both planning and execution. This

analysis is structured around the conceptual approach of ends, means, ways, and risks. Strategists, planners, division commanders, company commanders, and squad leaders all must cope with the problems of ends, ways, means, and risk. How General Moltke balanced these four concepts in his operational planning to bring about the defeat of the Austrian Army will be examined. Moltke's perspective on war would have been appreciated by Clausewitz. "A prince or a general can best demonstrate his genius," wrote Clausewitz, "by managing a campaign exactly to suit his objectives and his resources, doing neither too much nor too little." 2

The first and most critical element of operational art is understanding the desired end state and identifying the appropriate military objective. Whether the operational commander is given a clear strategic objective or unclear or ambiguous guidance, it must be translated into a well-defined operational objective. Operational commanders must broaden their thinking beyond the limits of immediate combat and visualize the desired military condition that will achieve the strategic objective. "The operational commander, in other words, describes a concept that envisions, for the most part, the accomplishment of the strategic and operational mission despite the fact that he

can seldom describe operations beyond the first tactical decisions...." 3 "This is why, ultimately, there must be a clear delineation of the operational commander's intent, an aspect that has grown even more important as technological advances, larger forces, and greater time and space considerations have increased the need for flexibility and initiative in subordinate commanders." 4 A clearly defined operational objective will allow a concentration of all efforts at the decisive time and place. Also a clear objective provides for more efficient use of our military resources (means), rigorous and intelligent methods of applying ways, and an assessment of the possibility of not achieving an objective (risk). A clear operational objective allows the tactical commander to design his plan and translate potential combat power into victories that will contribute to the overall success of the campaign.

The objective can not be realistically defined without an evaluation of the military resources or means (man power, logistics, money, etc.) required. The military resources determine our capabilities. The objective must be tailored to bring it in line with the resources at a given risk or the resources available to the commander must be increased.

Therefore, operational plans must be based on capabilities. The force package must include combat, combat support, and combat service support elements of the correct proportion and be adequately equipped and sustained. However, there may be times when circumstances (strategic objectives) dictate an operational mission without the necessary resourcing and a high degree of risk must be accepted. The commander who defines his objective or end state clearly beyond his means is forced to accept excessive risk at the tactical level and a higher probability of failure.

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The operational planner must be concerned with various methods to apply the military force (ways) and to pursue their operational objective or end. Ways can be described as the military concept or course of action accepted as the result of the estimate of the situation. Military strategic concepts are "ways" that combine a wide range of options such as security assistance, security, show of force, reinforcements, and forward deployment. Tactical engagements, battles, major operations, and campaigns are also ways the strategic objective may be achieved. The operational commander must understand the differences and interrelationships of these options and ensure that the results of tactical and operational considerations are ultimately linked

to the strategic objective. How the forces should go about accomplishing the objective within the means available is a balance that must be examined if the plan is to be a success.

If military resources (means) and concepts (ways) are not commensurate with the objective (end), the plan will have a degree of risk associated with it. The existence and the extent of the risk must be brought to the forefront and examined closely. Unrealistic approaches to the acceptance of risk in planning often results in plans that are potentially disastrous. "However, risk abounds in warfare and one who has near parity in combat power with his enemy must accept risk in one area in order to be decisive in another." 5 An economy of force operation is an example of a method that allows force economy in one area and concentration in another in order to be decisive. Not accepting a degree of risk in some situations and accepting too much risk in another can both lead to failure.

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Now that we have discussed the basic elements of military strategy: end, means, ways, and risk, it is imperative that each element be fully considered when formulating military strategy. The proper blending or balancing of these interdependent elements has always been a difficult process. The elements relate in a

dynamic manner; one element cannot change without affecting the others. "Ideally, the strategic ends, ways, and means provided to the operational commander should allow him to achieve a positive result without serious fighting as did Moltke's encirclement of the French army at Sedan in 1870...."6

In Paris it was written: "One of those formidable battles which declare the irrevocable verdict of force upon the destiny of nations has been fought in Bohemia. The Battle of Sadowa has revealed the armed might of Prussia and has struck a perhaps irreparable blow at the political power of Austria." 7 "The political consequences of the Battle of Koniggratz were so profound and so far reaching that it is not difficult to understand why it has generally been considered one of the decisive battles in the modern era." 8 Europeans had not witnessed war on the magnitude that was displayed during the Koniggratz campaign since Napoleon's time. It was the largest military encounter in the modern era. The railroad, telegraph, cast steel rifled cannon, breech-loading infantry rifle and all the other advanced technology of the industrial age played a major part in the results. A new style of military strategy emerged from the campaign that was to have a profound effect on strategical thought in the years that followed. The Prussian

Chief of General Staff, Helmuth von Moltke, disregarded the traditional operating theories and demonstrated how space and movement could be used to defeat an enemy using conventional operating theories. "Certainly, if one considers the economy with which Moltke employed material forces in order to achieve results according to a preconceived plan, then the victory of Königgrätz deserves to be regarded as a work of art." 9

II. CAMPAIGN OF KÖNIGGRÄTZ

Clearly the Prussian end state or strategic objective for a war against Austria in 1866 was in essence to bring about German national unity. This could only be done by defeating Austria and establishing Prussia as an European power. Austria and Prussia for many years had been struggling for supremacy in Germany. Shortly after his appointment as Chief of the General Staff in 1857, Moltke started working on contingency plans for the inevitable war with Austria. Moltke worked out plans for the concentration of the Prussian Army in a probable war with Austria as early as the spring of 1860 which is reflected in Memorandum Number One. Although military conditions had changed since 1860, the plan served as a basis for the plan of 1866.

Moltke was a loyal student of Clausewitz and was anxious to extend the control of reason over warfare. He knew that problems encountered in war cannot be exhausted by calculations. He acknowledged that political circumstances were bound to modify military strategy at all times and take away some of the freedom of the commander as he tried to direct military operations. Moltke felt that the mobilization and initial concentration of the army was calculable since it could be prepared a long time before the outbreak. "An error," he said, "in the original concentration of armies can hardly be corrected during the whole course of the campaign." 10

Moltke reasoned that the proper time for planning was before the battle. It is the strategist's job to provide his commander with a plan that affords his forces maximum protection during the period of deployment and additionally directs the combat forces to that part of the theater of war where they have the greatest possible advantage in the subsequent fighting. "To attempt to chart the course of a campaign and to hold field commanders to rigid prescriptions would be to destroy the kind of initiative and opportunism that wins battles." 11 Therefore, the operational plan must be flexible and adaptable to meet the

difficulties created by the complexity of enemy circumstances. It was a good thing that Moltke felt this way because the spring of 1866 was filled with problems for Prussia, problems which might have aggravated any other Chief of Staff and pressured him into dangerous decisions.

The military theater of operations in Bohemia fell into three parts. The eastern sector lay between the upper Elbe and the Adler and was bounded on the north by the Riesen Gebirge. The central section extended east of the Iser and was limited on the north by the Riesen Gebirge and on the south by the central Elbe. The western sector was bound by the Elbe and Iser rivers and the mountains of Lusatia (Figure 1). Moltke's plan called for the penetration of all three of these sectors by the Prussian Armies and the eventual union of these separate forces at or near Gitschin. The Army of the Elbe, once it had finished its operations against Saxony, would move through Rumburg into the western sector and head for Münchengrätz on the Iser River. The First Army would invade the central section and move toward the Iser line at Turnau and Podal and eventually toward Gitschin. The Second Army would pass through the defiles of the Aupa and upper Elbe and effect a rendezvous with the First Army.

On 12 May 1866 Moltke was given authorization for complete mobilization of the Prussian Army. Austrian mobilization had begun on 21 April 1866. Moltke's immediate task was to recover lost ground as quickly as possible by quickly dispatching troops to the theater of war. By using the highly developed Prussian railroad system, he deployed his corps forward until they stood on a concentric arc 276 miles long. In Moltke's mind, the dispositions made by the railroad were not the end of the army's deployment, but the beginning for the desired concentration of forces. The Prussian Army was in position to strike by concentric movement toward the enemy. Because war was not declared immediately, Moltke was compelled to shorten the arc because it was too dangerous. The final disposition of the Prussian Army prior to war was as follows: Army of the Elbe was located in the vicinity of Torgau, the First Army was located near Görlitz, and the Second Army was located in the vicinity of Neisse (Figure 2). On 15 June 1866 the Prussian government declared war on Hannover, Saxony, and Hesse and on 22 June declared war on Austria. Moltke then set out to plan his operation.

His first step was to define as the objective for the Prussian Army the defeat of the Austrian Army. This objective

would fully put his plan in compliance with the strategic end state. Moltke's plan to prosecute the war on the enemy's soil would require seizure of key terrain and certain force objectives; however, his ultimate objective would be the defeat of the Austrian Army.

Clausewitz indicated that the ideal strategy was to identify the center of gravity and to direct one's energies against it; and if the center of gravity proved to be the opposing army, so much the better. Additionally, Clausewitz states, "Not by taking things the easy way--using superior strength to filch some province, preferring some minor conquest to great success--but by constantly seeking out the center of power, by doing all to win, will one really defeat the enemy." 12 The same analogy is used in FM 100-5 to explain a key element of operational art: the essence of operational art "is the identification of the enemy's operational center of gravity--his source of strength or balance--and the concentration of superior combat power against the point to achieve a decisive success." 13 Thus for Moltke identifying the elusive center of gravity meant the mass of the Austrian Army. Finding and fixing this mass and bringing combat power against it to achieve a decisive victory would be a significant feature of his campaign.

The operational objective was different for the Austrian Army. Austria fully expected war and a Prussian offensive into Bohemia. "How can one avoid war," Emperor Francis Joseph asked, "when the other side wants it." 14 Austria's objective was to prevent the offensive into Bohemia by invading Prussian territory. This offensive into Prussia would seize the initiative and disrupt Prussian plans to fight the war in Bohemia. The route would lead over the Lusation mountains to Bautzen and Görlitz to Berlin. This would give the Austrians the advantage of seizing Saxony and covering the passage of the Bavarians by the passes of the Saale to Whittenberg where the whole of the invading army might have been united. This would poise the Austrians for an offensive push to gain control of the capital city of Berlin and overthrow the Prussian Monarchy.

It is now appropriate to look into the means available to Moltke and the Prussian Army. Moltke had three armies under his operational command. The Elbe Army, consisting of three divisions and two cavalry brigades under the command of General Herwarth von Bittenfeld; the First Army, consisting of three army corps and a cavalry corps of six brigades under the command of Prince Frederick Charles; and the Second Army, consisting of four army corps and a cavalry division of three brigades under the

command of Crown Prince Friedrich Wilhelm. Although Austria had double the population density of Prussia from which to recruit and was considered to be the strongest army in Central Europe, the ground force means available were considered by Moltke to be adequate to accomplish his objective. Moltke knew that the Prussian Army was a well-trained force with competent and intelligent leadership.

Another means available to Moltke was the Prussian Army's preparation for war. It was better prepared for war due to taking advantage of several revolutionary changes. The first was mobilization planning. Moltke considered the Prussian Army's mobilization plan as a critical means available to him. The ability to mobilize faster than Austria would give Prussia the initiative at the start of the war. The efficiency with which Prussia mobilized its forces in May of 1866 can be traced to the Prussian realization that the army had become lethargic during fifty years of peace.

Several reforms were initiated during the late 1850's and early 1860's that focused on improving the readiness of both the regular army and the militia. The regiments, divisions, and corps established an affiliation with the peacetime army that would be the same in wartime. Also, active duty corps were

located in the same districts in which they recruited and would draw their reserve units in case the mobilization order was given. Prussia could definitely shorten the time necessary for its large army to muster and conduct predeployment preparations by insuring that the regular and militia units were integrated. As a result of an efficient mobilization plan, Prussia would be able to muster and deploy three armies in a two week period along a 276 mile arc extending from Saxony in the west to Silisia in the east.

However, the mobilization plan alone was not the only reason the deployment worked so rapidly and efficiently. Just as important was the extensive railroad network that existed in Prussia. The use of five major railroad lines gave tremendous flexibility to the operational planners in the numbers of forces that could be deployed and the time that it took to deploy them along the Prussian frontier (Figure 3). Moltke estimated they could accomplish in two weeks what it would take the Austrians six or seven. The railroad offered new strategic opportunities to the Prussians. Troops could be transported much faster than the armies of Napoleon had marched, and the fundamentals of strategy--time and space--appeared in a new light. Conversely, the Austrian Army suffered from a combination of poor planning,

lack of rail assets (only one rail line into Prussia), and a deteriorating militia and recruiting infrastructure.

Another means was improvements in the general staff, officer corps, and education of the army. Moltke had been a part of the reforms of the general staff system. These reforms affected many levels of the Prussian Army but significantly changed the thinking of much of the military leadership. It encouraged tactical analysis among its officers by instituting terrain walks and formal critiques of annual maneuvers. These opportunities to study warfare fostered a need for historical and topographical sections of the staff. Intelligence was gathered on other armies that also contributed to the analysis of possible enemy courses of action against Prussia. An example of this is Moltke's Memorandum Number One which talks extensively about a possible war with Austria. ✓

The reforms and education process at the general staff level were passed down to the corps and division staffs. Also, it became policy to rotate the staff officers between Berlin and the different corps and divisions. This had a positive effect on the Prussian officer corps resulting in the building of a common understanding in staff procedures. Additionally, because of the

Prussian conscription process, their army was more clearly a citizens army than that of any other European country. This fact coupled with the State's emphasis of educating its soldiers, produced a relatively high education level in the rank and file of the Prussian Army.

Prior to war with Austria, Prussia had completely armed its infantry with the most technically advanced infantry weapon of the day, the needle gun. Because of the needle gun's high rate of fire and security of loading, a refinement to the tactical doctrine had been made. This refinement was an adjustment from infantry battalion mass formations to a more open company formation which was a more efficient and effective use of resources.

Another use of advanced technology available to Moltke was the new cast steel rifled cannon and improved communications capabilities. The new Prussian cannon had demonstrated greatly improved accuracy and distance over the smooth bore cannon. The advanced technology concerning the railroad and its strategic importance has already been discussed. However, being able to control effectively a deployment and a war of such potential magnitude would not be possible had it not been for the great

strides made in communications in the two previous decades.

Moltke considered the morale of the troops to be a significant means available to him. Just as it was necessary to equip and train soldiers, it is equally important to build the morale of the force. Moltke relied heavily on his subordinates to improve the morale of the soldiers. He began this by providing the soldier with an intelligent and professional officer corps. He instilled pride and confidence in the soldier by providing him the best equipment, training, and leadership available. By the outbreak of hostilities the feeling of patriotism and the state of morale of the Prussian Army was at the highest level. This high state of morale would continue throughout the course of the war.

General Moltke's operational plan sought decisive battle with the Austrian Army as the way to obtain his operational objective. Moltke had attended the Prussian War College when it was under the direction of Clausewitz and he later became an avid student of Clausewitzian theory. Moltke planned the operation against Austria in a manner reminiscent of Clausewitz. Clausewitz described battle as "a struggle by the main force...it is a struggle for real victory, waged with all available

strength." 15 Clausewitz also prescribed:

A dual law whose principles support each other: destruction of the enemy's forces is generally accomplished by means of great battles and their results; and, the primary object must be the destruction of the enemy forces. 16

In seeking to destroy the enemy through a great battle, Moltke's operational plan and his role in it was critical. As operational commander, he had to design ways to set the circumstances for tactical success and orchestrate these tactical victories into an operational success--the defeat of the Austrian Army. •

Dispositions by rail were not the end of the Prussian Army's deployment but the beginning. The desired concentration of forces could come in due time and would take place forward by means of concentric movement toward the enemy. On June 18, General Benedek started the northern Austrian Army toward the fortress Josephstadt. This movement allowed Moltke to confirm beyond reasonable doubt the direction the enemy would move. On June 22, the telegraphic order ran as follows: "By the order of His Majesty, the two armies will enter Bohemia and take steps to unite in the direction of Gitschin." 17 Gitschin was chosen by Moltke as a rally point but had no intrinsic importance. It was

selected because of the distance and because he felt that he had to put his armies within supporting distance of each other before going farther east.

The Army of the Elbe left Dresden and would start an invasion of northern Bohemia as soon as possible. The initial attacker, Austria, would ultimately defend, thus the Prussians would seize the initiative and be on the offensive. Moltke's idea was to come at Benedek from exterior lines of operation and use space, time, and movement to mass forces effectively at the heart of the enemy. His aim was to contain the enemy in the center with part of the attacking army and envelop the flanks with the other portion thereby gaining the decisive battle he desired. In this, he was able to take advantage of concentric attack, one of the things Clausewitz held to be desirable in theatre offensives.

Moltke also shared Clausewitz's view that defense was the stronger form of war, but felt that the offense was the more effective form because it alone led to gaining the objective. Moltke wrote that to arrive at a choice between the offense or defense the commander must compare his fighting means with those of the opponent, and if he finds his means are equal to those of

the enemy, he will choose the offense without question. This does not preclude his taking the defense in the course of the campaign according to circumstances. Never was the offensive more strongly visible than in the condition that preceded the Prussian invasion of Bohemia. Moltke wanted to bring the war to a rapid conclusion and felt that the offensive was the most direct road to the objective and the defense the round about road. Moltke kept his mind set on the operational necessities; ensuring that he concentrated overwhelming combat power at the decisive time and place. He understood his operational role and how strategy, operations, and tactics were interrelated.

Certain that Bohemia would be the theater of operations, the Prussians began their advance on the 20th of June. The Army of the Elbe marched from the vicinity of Dresden through Neustadt, Schluchtau, and Rumburg, to Gabel. The First Army was concentrated in the vicinity of Zittau. From Zittau it began to march on the 22nd of June and by the 25th it was closely concentrated at Reichenberg. The original 276 mile Prussian front was now reduced to about 100 miles and the Army of the Elbe was only separated from the First Army by approximately 15 miles. On the evening of the 25th the position of the Prussian Armies and the opposing force was as shown in Figure 4. To ensure the

passage of the Second Army through the defiles of the Riesen Gebirge, it was necessary to distract the enemy by false maneuver and to wait for the First Army to make contact with the Austrians along the Iser River before the Second Army would begin their advance. Frederick Charles pushed one of his corps forward toward Olmutz. Frederick Charles received the following message from Moltke: "As the weaker Second Army has the hard task of debouching from the mountains; then, as soon as a junction is effected with the corps under General Herwarth, it will be the duty of the First Army to shorten the crisis by rapid advance." 18 The corps made contact and had a successful encounter against the Austrian cavalry. The Austrians assumed this to be the advance-guard of the Crown Prince's army marching upon Olmutz. The Prussian corps succeeded in holding a large force of Austrians in place and kept them from opposing the real advance of the Second Army.

The Army of the Elbe began its march upon Neimes and Oschitz on the 26th of June. The Army of the Elbe would have two successful skirmishes as they pushed forward. The First Army made contact and drove the Austrians from the village of Liebenau. The Austrians retreated across the Iser to Podol and attempted to hold the bridges. After a stubborn infantry battle

that lasted well into the early morning, the Austrians retreated toward Mönchengrätz. This Prussian victory secured the passage across the Iser at Podol and opened up the shortest route to Gitschin. The Second Army on the 26th had passed the mountains and the advance-guard of one corps occupied Nachod. This disposition had reduced the distance between the Crown Prince and Frederick Charles to about fifty miles (Figure 5). The distance between the extreme corps of the Austrian Army was about the same. General Benedek's strategical advantage was starting to dissipate. However, Benedek still had in mind to take the offense as soon as the concentration of the army was complete. Josephstadt, his chosen point of concentration, was too far north; however, he was unable to realize this until it was too late.

On the 27th the First Army was in possession of the crossings at Turnau and Podol. Prince Frederick Charles spent the whole of the 27th in preparation for an attack upon Mönchengrätz which would open the way for the Army of the Elbe. A frontal attack upon Mönchengrätz was to be combined with an enveloping movement against the Austrian right. On the 27th the First Corps of Crown Prince's army had pushed against Trautenau and the V Corps upon Nachod. The 1st Corps was to advance in two

columns and concentrate outside of Trautenau. The left column arrived first; but instead of seizing the town and the advantage of the heights that overlooked it, chose to wait until the other column arrived. While the left column was idly waiting, an Austrian brigade took up a strong position in and about the town. This delay resulted in the Prussians being driven from the field back to the positions from which they began. The Austrians had gained a brilliant victory. The V Corps was caught in the defile of Nachod and after a six and one-half hour struggle defeated an Austrian corps. The 27th had seen two bloody battles fought by the Second Army. The First Army had spent the day constructing bridges across the Iser and concentrating its forces for an attack upon Münchengrätz (Figure 6).

On the 28th the First Army and the Army of the Elbe made a combined attack upon Münchengrätz. The Austrians had already begun a retreating action by the time the Prussian columns were converging on Münchengrätz. The Prussians failed to discover what was happening and the enemy was allowed to slip away unmolested except for some rearguard action. The armies of Frederick Charles were now completely united. Upon learning of the defeat of the First Corps at Trautenau, The Crown Prince began the movement of two divisions (1st and 2nd) to attack the

Austrians. The Austrians were driven from the field and retreated to Neustadt. While all of this was happening, the V Corps was defeating the Austrians at Skalitz. These battles opened the passes of Trautenau and Nachod to the unimpeded advance of the Second Army. The distance between the advance-guard of Frederick Charles and that of the Crown Prince was only twenty-seven miles (Figure 7).

On the 29th intelligence estimated that the Second Army commanded by the Crown Prince was opposed by IV, VI, VIII, and X Austrian Army Corps to the front and the II Corps on his left flank. The First Army of Frederick Charles was opposed by the 1st Corps and the Saxons (Figure 8). Moltke, in an attempt to counter some of the odds against the Crown Prince, ordered Frederick Charles to move quickly against Gitschin. Moltke's instructions to Frederick Charles were as follows: "His Majesty expects that the First Army will disengage the Second Army by an immediate advance, as that army, in spite of a series of successful engagements, is still in a very difficult situation." 19 The First Army and the Army of the Elbe advanced without delay. The Austrians under Count Clam-Gallas had taken up a very strong defensive position around Gitschin. The Prussians attacked the Austrian right wing with Tumbling's

division and the left wing with Werder's division. The Austrians were gradually being pushed back and Count Clam-Gallas, upon receiving word that assistance would not be given, ordered a retreat. The Prussians occupied Gitschin after midnight. The Austrians had lost and were retreating upon Königgrätz. The Second Army advanced toward the Elbe River via Gradlitz on the 29th. The Second Army had two encounters during the day. One was a brigade size encounter, the other a larger portion of the Austrian IV Corps. Both of these encounters were successful and by the end of the 29th the Crown Prince had reached the Elbe. Four days had passed since the Crown Prince's army had crossed the frontier into Bohemia. In that short space of time, and without any defeats, he had met and repulsed four Austrian corps. The concentration of the Prussian Armies according to Moltke's campaign plan now seemed assured, and the strategical situation was decidedly against Benedek and Austria.

On the 30th Benedek gave orders for a general retreat in the direction of Königgrätz. At last the truth had been brought home to him. His whole campaign plan had crumbled. He had effected his concentration behind the Elbe but at a total cost of 30,000 men. Never had all the advantages which the possession of interior lines gives to the commander who knows how to use them

been more completely thrown away.

It was on this day, the 30th, that the King of Prussia, accompanied by Moltke, left Berlin for the front. The following telegraph was dispatched enroute by Moltke, "The Second Army will hold its ground on the upper Elbe; its right wing will be prepared to effect a junction with the left wing of the First Army, by way of Königinhof, as the latter advances. The First Army will press on to Königgrätz without delay. Any forces of the enemy that may be on the right flank of this advance will be attacked by General Bittenfeld and driven away from the enemy's main body." 20 These instructions had been anticipated almost to the letter by both the Crown Prince and by Prince Frederick Charles. Although otherwise uneventful, the 30th of June is, therefore, important as the day upon which direct communications were first established between the two Prussian Armies (Figure 9). Moltke's concentration of forces from exterior lines of operations had been successful.

In the early morning of the 1st of July Benedek began his retreat to Königgrätz and established positions along the Elbe and Bistritz Rivers and the roads leading into Königgrätz. The Prussian forces pushed forward but remained separated for

tactical reasons (Figure 10). The Prussian Armies would make their junction, if possible, upon the battlefield, in a combined front and flank attack upon the enemy as Moltke's operational concept had anticipated.

On the 2nd of July the Prussian First and Second Army were adjusting positions and the Army of the Elbe was moving forward toward Königgrätz (Figure 11). Late in the night on the 2nd of July intelligence was obtained that fixed the Austrian position beyond the Distritz in the direction of Königgrätz. The situation of the Prussian Armies was such that all three could be directed upon the Austrian positions. Before midnight orders were issued that would have the Second Army making a frontal attack; the First Army attacking the right flank and the Army of the Elbe the left flank. Moltke had set the conditions for the success of what he wanted to be the decisive battle.

On 3 July, despite the rain, muddy roads, and the late hour in which the order had been received, the First Army moved forward and into place by 6 a.m. The Battle of Königgrätz had begun (Figure 12). Word was received from the Army of the Elbe that their force would be in place by 9 a.m. The assistance of the Second Army would be available about noon time.

The first contact was made by the Prussian 8th, 4th, and 3rd Divisions, supported by artillery, shortly after 6 a.m. The First Army was to engage the enemy in the line of the Bistritz and hold that ground. A further advance by the Prussian Army might perhaps dislodge the enemy before the flank attacks of the other armies could be effected. The 7th Division had the first major encounter at about 9:30 a.m. in the Swiep Wald. The 7th Division was completely out numbered and out gunned. However, the shelter of the woods, the breech-loading rifle, and the soldiers individual bravery saved the Prussians from destruction. By 9 a.m. the 8th, 4th, and 3rd Prussian divisions had made passage of the Bistritz. This operation proved to be easier than had been expected. The 8th Division crossed Bistritz at Sowetitz and took shelter in the Hola woods. The 4th Division crossed the bridge at Sadowa and marched against Dohalitz and Dohalicka. The 3rd Division crossed lower down the Bistritz and massed behind the village of Mohrowous.

So far the First Army (center) had not received any help from the two flanking armies. The Second Army was a distance from the battlefield and the Army of the Elbe had yet to make itself felt against the Austrian's left. Except for the 7th Division's encounter, the Prussian advance had met weak

resistance.

However, by 11 a.m. the Prussian advance had been stopped and the position of the First Army became critical. The last battalion of reserves had been brought into action. The combination of attempting to relieve the pressure upon the 7th Division and to hold the Austrians to their ground had resulted in exposing the 8th, 4th, and 3rd Divisions to massive artillery fire to which they were not able to reply. Lightly guns still remained beyond the stream because of unsuitable firing positions. The 7th Division's line had been broken and some units had run out of artillery ammunition. The question of retreat had been discussed by Moltke and his generals. Moltke's decision to hold the line of Bistritz at all cost was supported by the King.

By 8 a.m. on the 3rd of July the Second Army had departed in the direction of Königgrätz to link up with the left wing of the First Army. By 11 a.m. the only troops that had reached as far as the Trotina were the Guards and the VI Corps. The Second Army had narrowed its front from twenty-two miles to nine miles but were still two and one-half miles from the left wing of the First Army. However, the Guards advanced to a position close

enough to observe that the First Army's 7th Division was in considerable difficulties. The Prussian infantry deployed into the flank of the Austrian Armies holding Horenowes, Racitz, Tortina, and Sendrasitz. Thus the hard-pressed 7th Division received its first measure of relief and by 2 p.m. Prussia had forced the Austrians to retreat into the Chlum-Nedelist area.

After the capture of Maslowed the Prussian 1st Guard Division rapidly advanced on Chlum. The battle became a duel between gun and rifle, and the superior fire of the Prussian infantry overwhelmed the Austrian artillery. After a hard fought battle, Chlum belonged to the Prussians. While the 1st Guards had been having the tremendous success in the center, the 11th Division on the left had passed through Sendrasitz, and although taking a pounding from artillery fire, had taken Nedelist. To the east the 12th Division had crossed the Tortina and had moved towards Königgrätz.

By 3 p.m. the crisis of the battle was over and a Prussian victory was assured. The Second Army had control of Chlum and Nedelist and had almost cut the Austrian main line of retreat to Königgrätz. The First Army, which had taken the brunt of the battle for approximately seven hours was preparing to take

revenge. On the right, the Army of the Elbe was pressing hard against the Austrian left wing and was about to break through the defense.

The Austrians from 3 p.m. on were trying to retreat with as few losses as possible. A counter-attack to retake Rosberitz resulted in fierce fighting. The Austrians did retake Rosberitz but after suffering great loss were compelled to retreat.

It was clear that the battle was going in Prussia's favor and at 3:30 p.m. His Majesty the King gave word for the whole Army to advance. The end was now near and was only delayed by the Austrian artillery. By 4:30 p.m. the entire Austrian Army was in full retreat. The pursuit by the Prussians was held in check by the artillery; however, by 6 p.m. the wings of the victorious army closed in toward the center. From 6 p.m. to dusk the Prussians were unable to gain ground further towards the Elbe at Königgrätz. At 6:30 p.m. the following order from Moltke was dispatched: "Tomorrow is a general rest day. The troops will only move in so far as is necessary for the comfort or the re-formation of the corps..." 21 In classic Napoleonic fashion the decisive battle had been fought and Moltke had achieved his operational objective--the defeat of the Austrian Army.

The Prussian Army under Moltke certainly couldn't have accomplished this without accepting a degree of risk to correct the imbalance between ends and means. The first risk any operational planner takes is predicting the course of action that the enemy will take. Moltke's operational plan depended heavily on an accurate prediction of the enemy's aim. Based on several years of war-gaming and current intelligence, Moltke anticipated that the Austrians would attack through Bohemia and not Silesia and task organized to meet his plan. Moltke's plan of working from exterior lines of operations, coupled with mobilizing on an arc of 276 miles made it imperative that he knew exactly what the enemy would do and how they would do it. Moltke had done his homework concerning the Austrian army commander General Benedek which is reflected in a memo to Prince Frederick Charles. Moltke states, "I fully share your views that the Austrians will not carry out two main operations simultaneously. The very name Benedek guarantees that they will meet us in only one direction, and that elbow to elbow...but the direction into Silesia does not strike the center of gravity of the Monarchy." 22 Without taking risk in predicting the likely avenue of approach, the Prussians might not have defeated the Austrians.

Additionally, there was a great deal of risk in Moltke's

plan concerning the Second Army's avenue of approach through the mountain passes into area of operations. The movement of the Second Army through the narrow passes into Bohemia had been carefully planned and timing and urgency of execution was a critical component. It would have been disastrous if the Austrian army had attacked the Second Army as it was debouching from the mountains. Any significant delay or defeat while advancing through the mountains would critically affect the timing of the plan and leave the other two Prussian armies vulnerable to being attacked by a superior Austrian force. Moltke had impressed upon the leadership of the Second Army the risk involved and the importance of a wise plan of march. The success of the Prussian plan hinged on the ability of the Second Army to pass through the mountain defiles in a safe and timely manner. Moltke accepted this risk because of his confidence in the leadership of the Second Army and the fact that Benedek was a slow and methodical planner and was not prone to take such bold action.

Finally, Moltke's choice of operating on exterior lines was considered risky by many military experts. The criticism was that it was dangerous because it would allow the Austrian forces operating on interior lines between the First and Second Armies,

to defeat the Prussian Armies singly before they could concentrate. Moltke departed from traditional theories about the advantages of operating on interior lines and designed a plan that took advantage of time, space, and movement to encircle and defeat an enemy using traditional operational views. The geographical layout of the Prussian frontier and the railroads compelled Moltke to plan for exterior lines of operations to ensure the advantage of the initiative and deny an Austrian invasion into Prussia. Also in Moltke's estimation the terrain in the theater did not lend itself to operating on interior lines. He conceded that Benedek would get his forces into a central position, but what then? The advantages of interior lines can become a distinct disadvantage. The risk involved was not disregarded by Moltke; it was deliberately accepted. Every effort had to be made to reduce or possibly eliminate risk by perfect timing and cooperation. By bringing pressure to bear with a strong force, the enemy would not be free to turn against and crush the weaker. Had the risk not been realized Moltke would have had no claim to be considered a great strategist, but it was realized and, as far as possible, action was taken against it. The Prussian Army's objective would not have been achieved if Moltke had operated on interior lines as expected by his contemporaries. Through Moltke's ingenious ways and his

deliberate willingness to accept risk, he was able to balance his means to achieve his objective.

III. CONCLUSIONS

Of the many lessons learned from an analysis of the battle of Königgrätz, probably the most important one is the effectiveness of leadership at the operational level. General Moltke's brilliant leadership during this campaign was one of the major factors contributing to the Prussian army's success. Moltke possessed the long range vision essential to a commander at the operational level. The operational level of war deals with the sequencing of major battles and operations in order to achieve a strategic goal. Moltke's operational objective was the defeat of the Austrian army in Bohemia. Units were provided to him by the strategic commander. Moltke had to balance his resources with his objective and ensure that he concentrated superior forces at the time and place for the decisive engagement. Moltke clearly understood the strategic, operational, and tactical plan correlation and how each contributed to the campaign.

Moltke understood and recognized the importance of planning

and thinking ahead. The Prussian military had been preparing for a war with Austria for several years and had carefully studied every enemy and friendly course of action. Every aspect of the campaign from mobilization to defeat of the Austrian Army had been logically sequenced.

Moral courage or will power was another important aspect of Moltke's leadership. After Moltke had completed his campaign plan, he had the moral courage to stand behind it and execute it. Moltke had to struggle not only against the enemy, which at that time was the most powerful in Europe, but also against the critics of his campaign plan. It is doubtful the Prussians would have been successful if Moltke not had the will power to press his convictions.

Was Moltke a "genius" in the art of war in the Clausewitzian sense? In Chapter Three, Book One Clausewitz listed several traits which taken together constituted the essence of military genius. They are courage (physical and moral); an intellect that "even in the darkest hour, retains some glimmerings of the inner light which leads to truth; determination; presence of mind; and strength of character." 23 Moltke met these standards and many agree with the label of "genius"; however, Clausewitz

has one last criterion.

...history and posterity reserve the name of 'genius' for those who have excelled in the highest positions--as commanders-in-chief--since here the demands for intellectual and moral powers are vastly greater. To bring a war, or one of its campaigns to a successful close requires a thorough grasp of national policy. On that level strategy and policy coalesce: the commander-in-chief is simultaneously a statesman. 24

Moltke brought the campaign against the Austrians to a successful conclusion, and by doing so, passed history's and Clausewitz's last test of genius.

Another significant aspect of the Battle of Koniggratz was the use of modern technology in operational planning. The vast railroad networks were critical to the Prussian operational planners. Without the railroad to mobilize the force on the frontier, the Austrians would have seized the initiative and the War of 1866 would most likely have been fought in Prussia. The effective control of the transporting such a great number of men to the battlefield and providing effective command and control attests to the great strides made in the field of communications. To Moltke and his operational planners, this

technology provided a means which allowed them to be more evolutionary in their planning and disregard the traditional theories of conventional operational views.

Also, the new technology of the breech-loading rifle had undisputable importance in the victory of the Prussian army during the Battle of Königgrätz. This superiority of fire power was the cause of the rapid deterioration of Austrian troop morale. For the planner the needle-gun was a basis for adjusting tactical formations to be larger, more mobile, and more efficient in the use of personnel and firepower. "At the same time, however, the experience of Königgrätz stood, and still stands, as a warning against the danger of over valuing technical superiority, and it is particularly instructive for our own age, in which so much has been made of technological break throughs and 'gaps' in weapons production."²⁵ Some observers thought the needle-gun had less effect upon the battle than did the training, will power, and morale of the Prussian soldiers.

When considering the balance that must be struck between end state, means, ways, and risk, one of the most important aspects is that of morale. Moltke had spent considerable time building the morale of the Prussian Army. He instilled morale in his

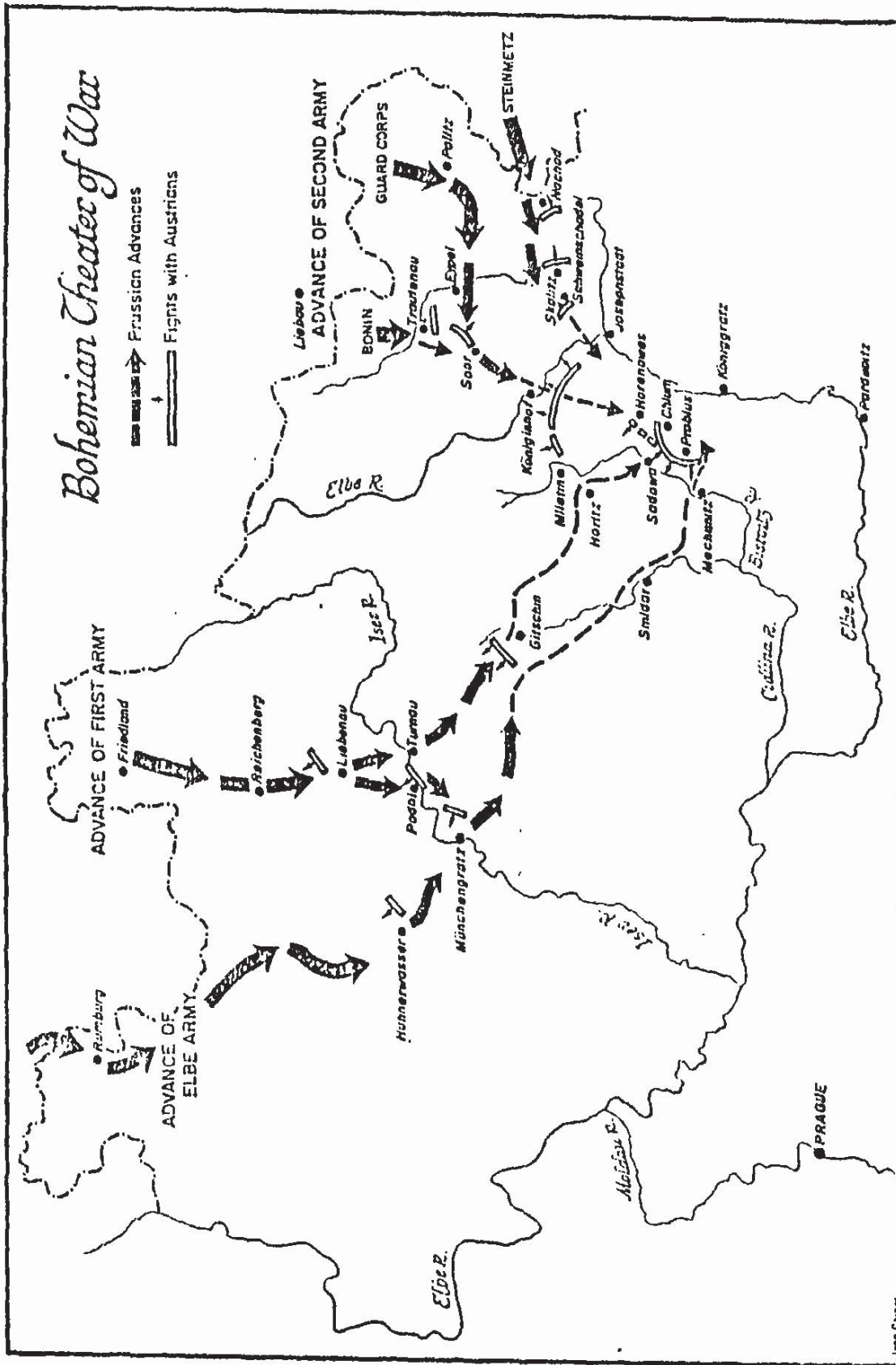
soldiers by providing the best equipment, training, and leadership available. He relied heavily upon the quality of his leaders to improve the morale and instilled in them a strong fighting spirit. At the start of the war the morale was at a high level and continued to stay high throughout the war. The morale of the individual soldier and the unit is as important to the operational commander as is defining the objective.

The real crux of operational art consists of balancing end, means, ways, and risk. To be sure, it is a balancing act in the strictest sense of the word. In most instances, the operational commander will find that the means are never adequate to accomplish the end state. When inadequate means exist, the commander must try to deal with and correct this imbalance. Dealing with this imbalance takes an experienced commander because a balance must be struck between competing demands and must be done in the stress, friction, and fog of battle. Moltke was successful in balancing these competing demands during the War of 1866.

Moltke received a clear strategical objective from the King of Prussia and Count von Bismarck. The strategic objective or end state was to bring about German national unity. Moltke's

operational objective was the defeat of the Austrian Army. Even though Austria was considered the most powerful state in Europe, Moltke was capable of applying the means available to defeat the Austrians. His ways were innovative, sound, and balanced with the means. In every operational plan a certain degree of risk is accepted. There was a significant degree of risk associated with the plan for the Battle of Königgrätz, but Moltke recognized and accepted it. Moltke recognized that he could not be strong all across the concentric front. He knowingly accepted risk in order to fix the Austrian force in the center and attack into both flanks.

The end, means, ways, risk, and other considerations must be examined by the operational planner. The prominent factors concerning operational art must be foremost in his mind to avoid confusion caused by numerous competing requirements. The most important of these is the end state. Operational art is essentially a balancing act between the end, means, ways, and risk. The epitome of operational art was demonstrated by Moltke in his campaign to defeat the Austrian Army.



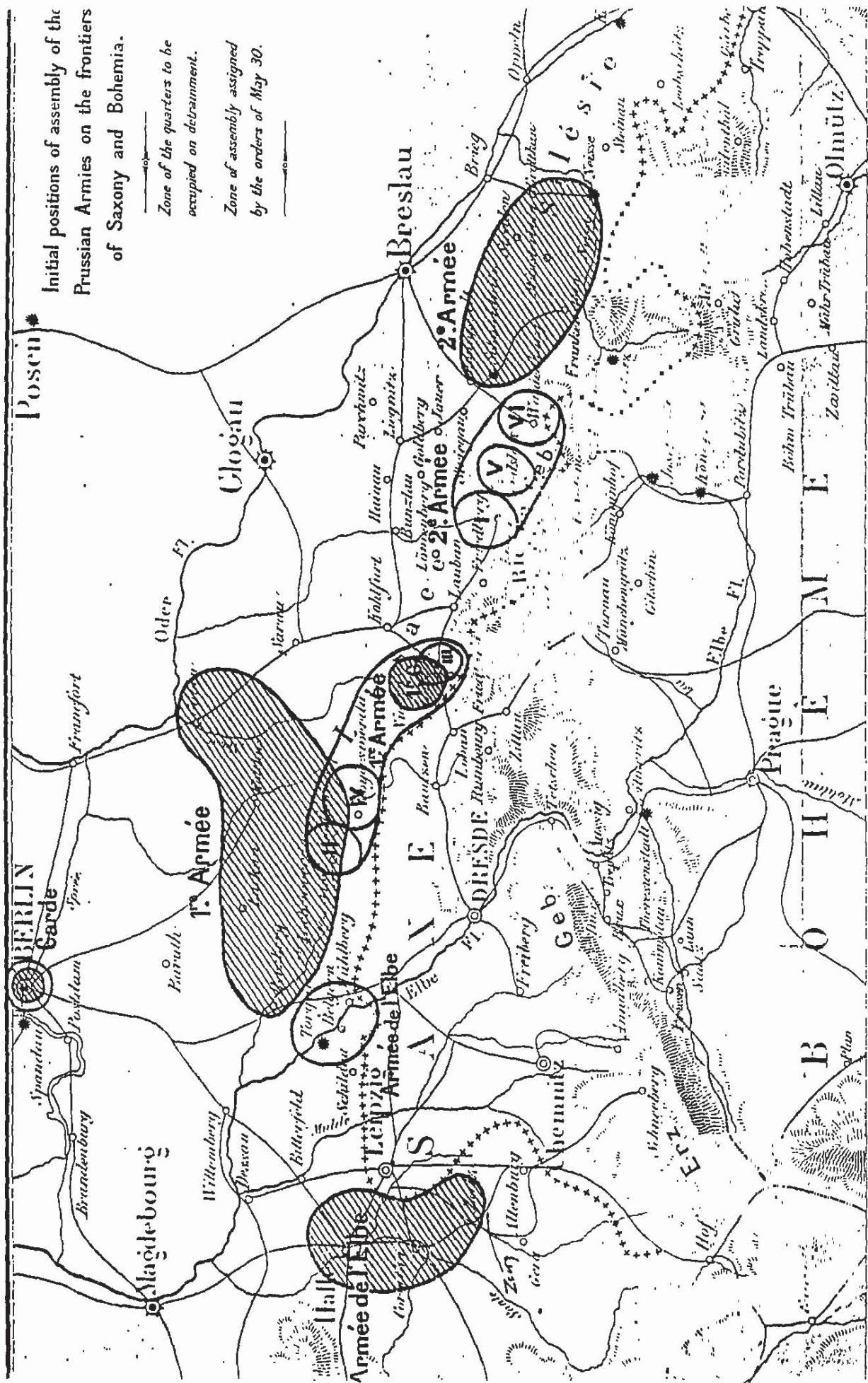
No. 1

P. 4

*Initial positions of assembly of the
Prussian Armies on the frontiers
of Saxony and Bohemia.*

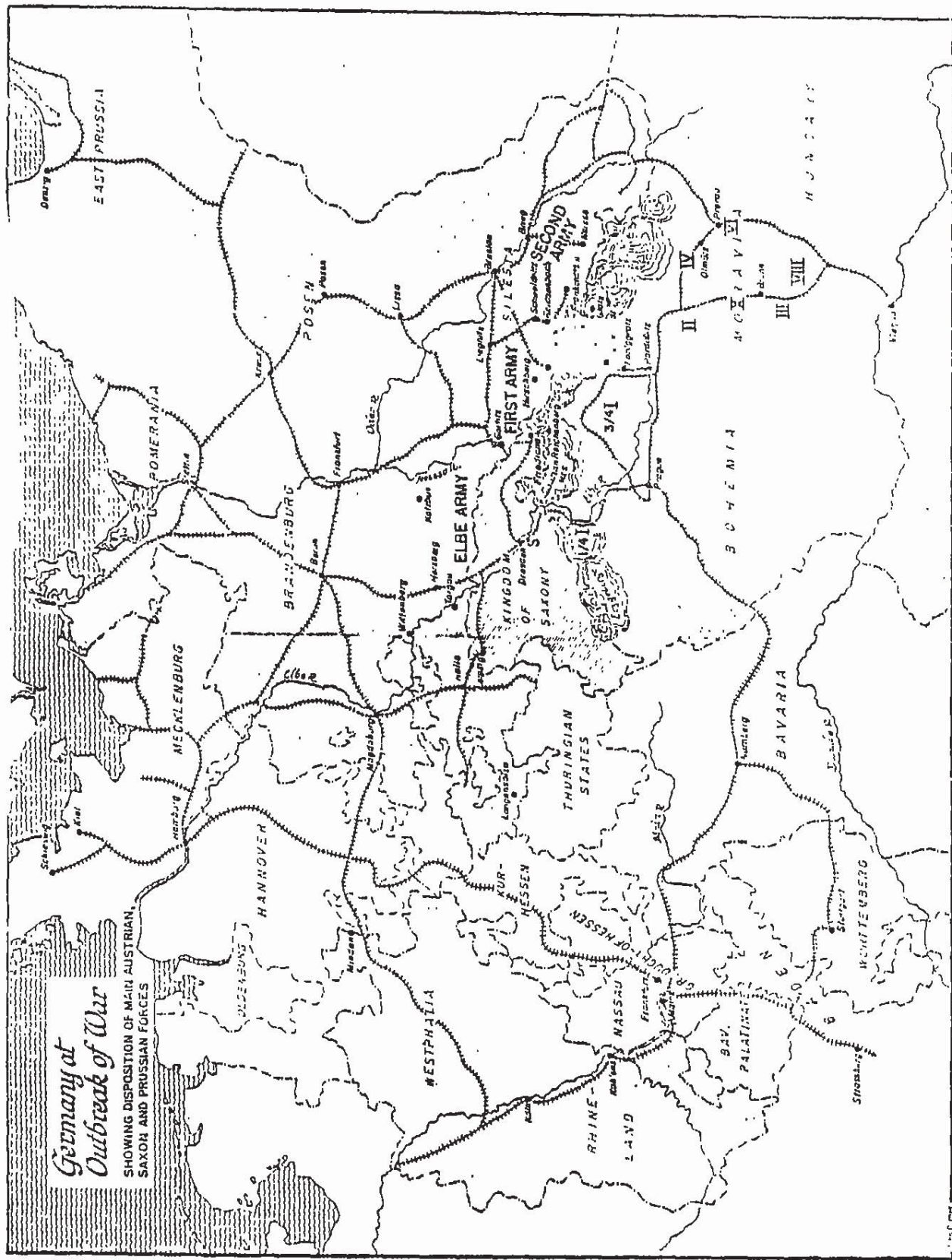
Zone of the quarters to be occupied on detachment.

Zone of assembly assigned
by the orders of May 30.



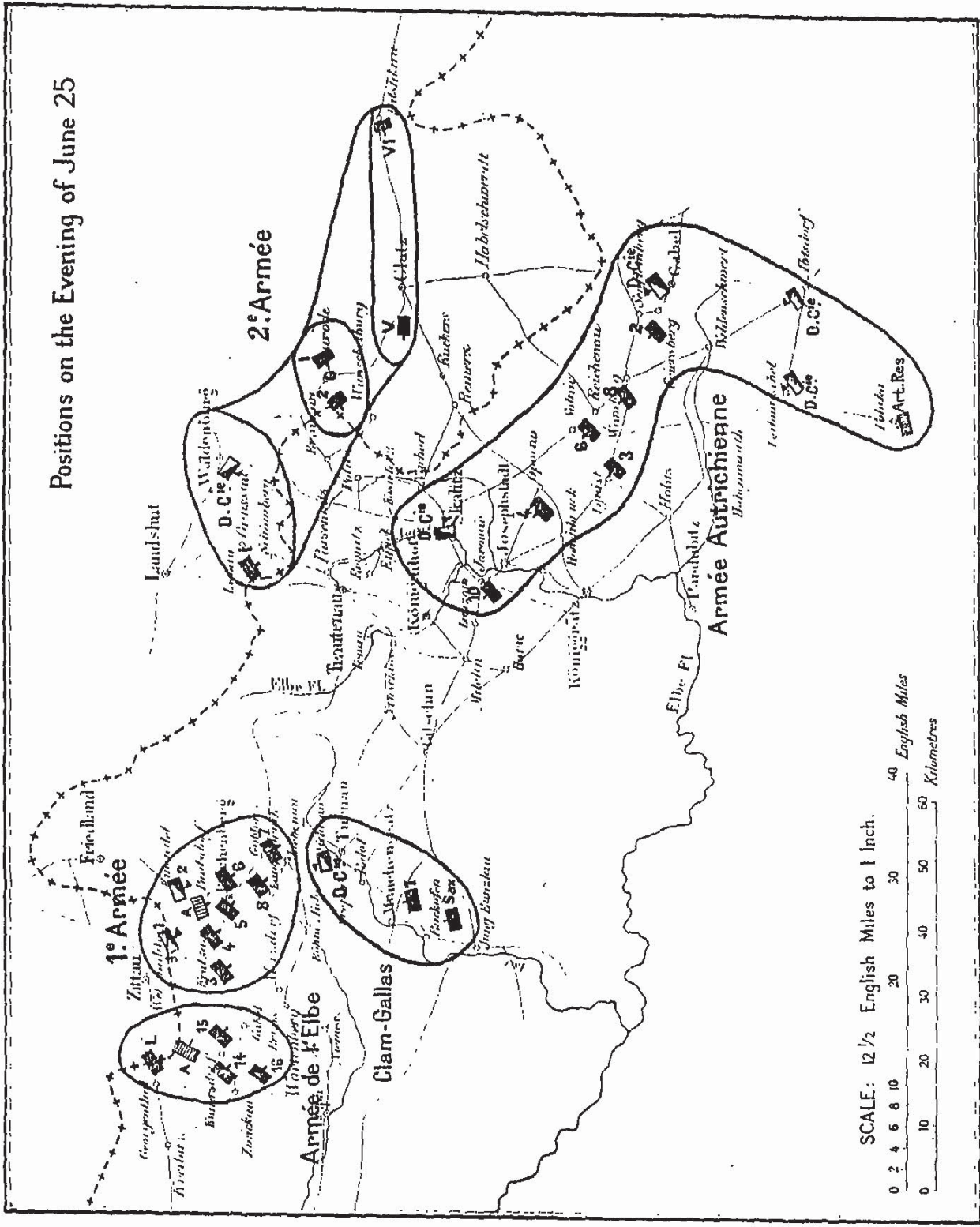
Hopes

Scale: 29 English Miles to 1 Inch.

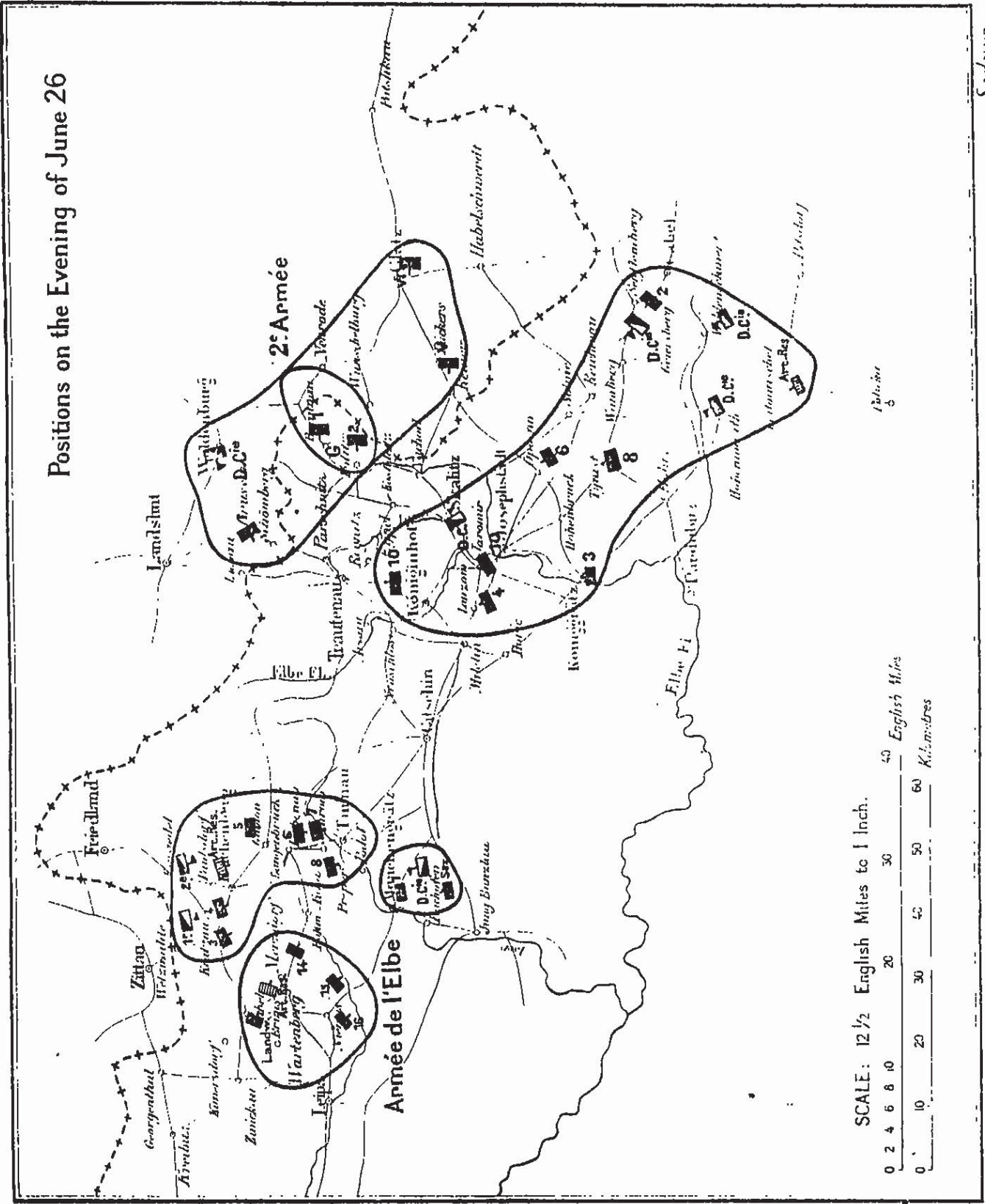


Railroad System

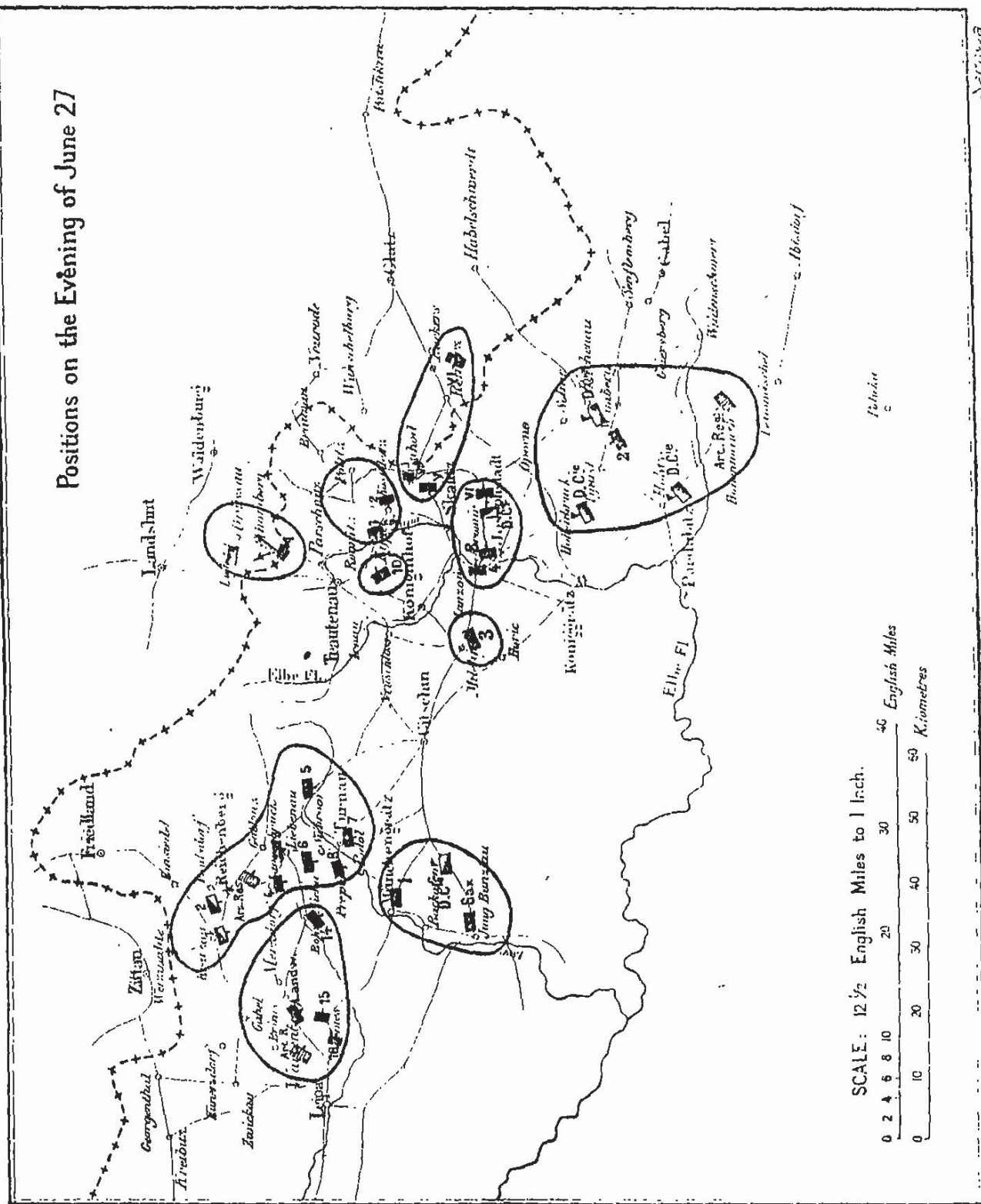
Positions on the Evening of June 25



Positions on the Evening of June 26



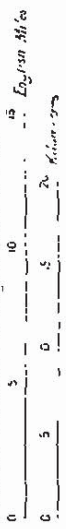
Positions on the Evening of June 27



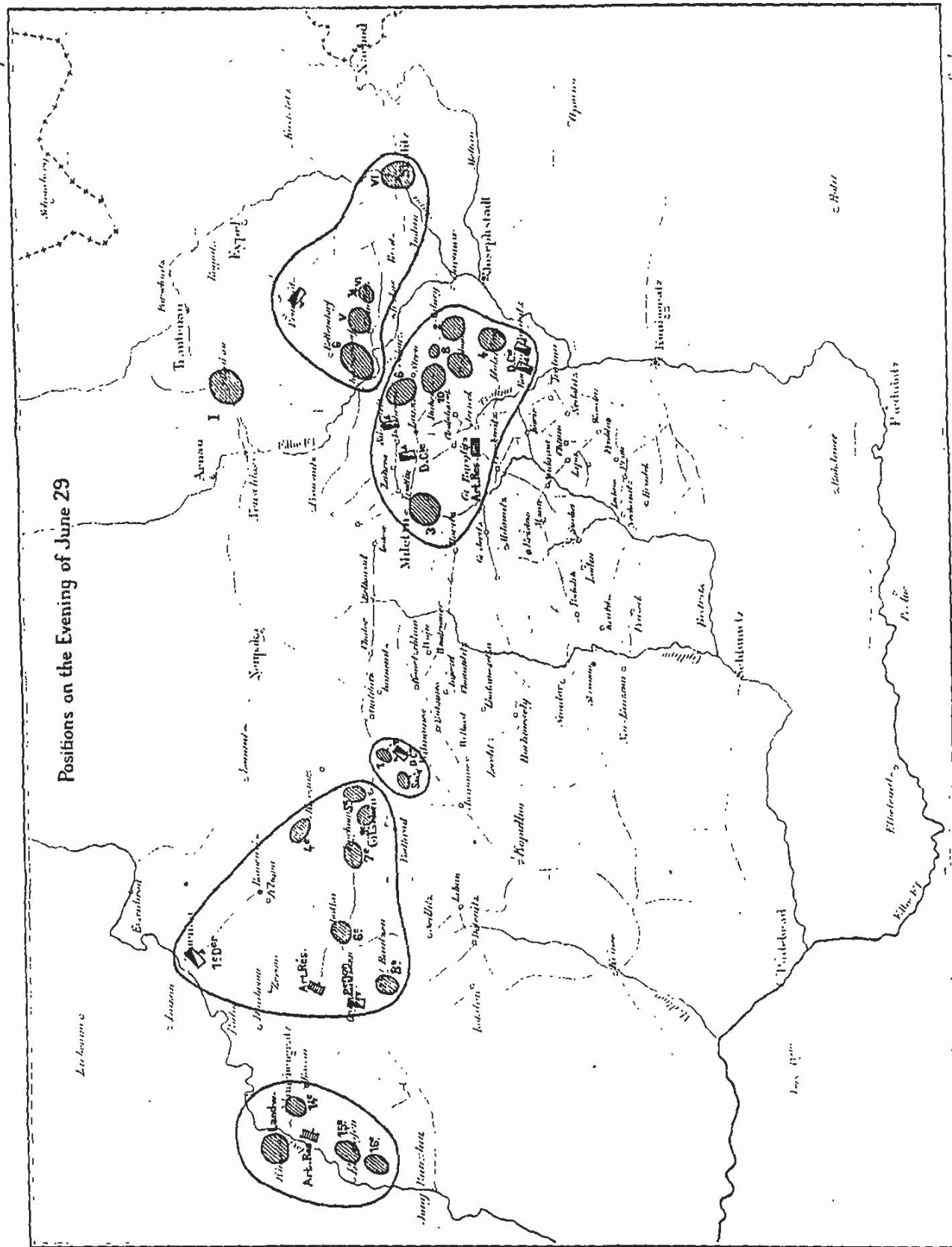
Appendix



SCALE 1-20000. 3-4-50 Miles to inch.



Positions on the Evening of June 29



South Africa

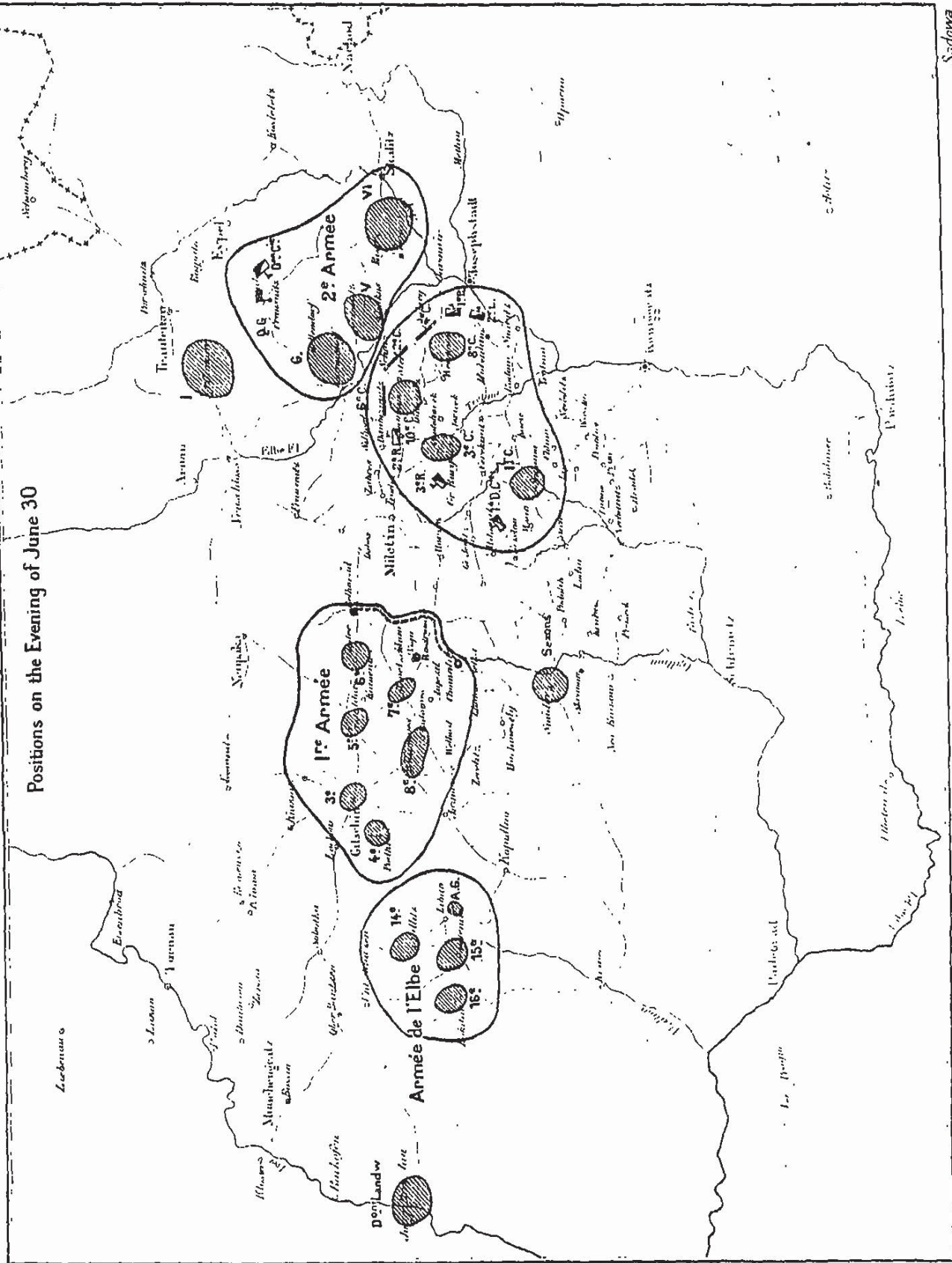
No. 8

SCALE: 1:320,000. 5 English Miles to 1 Inch.

0 5 10 15 20 English Miles

0 5 10 15 20 Kilometres

Positions on the Evening of June 30

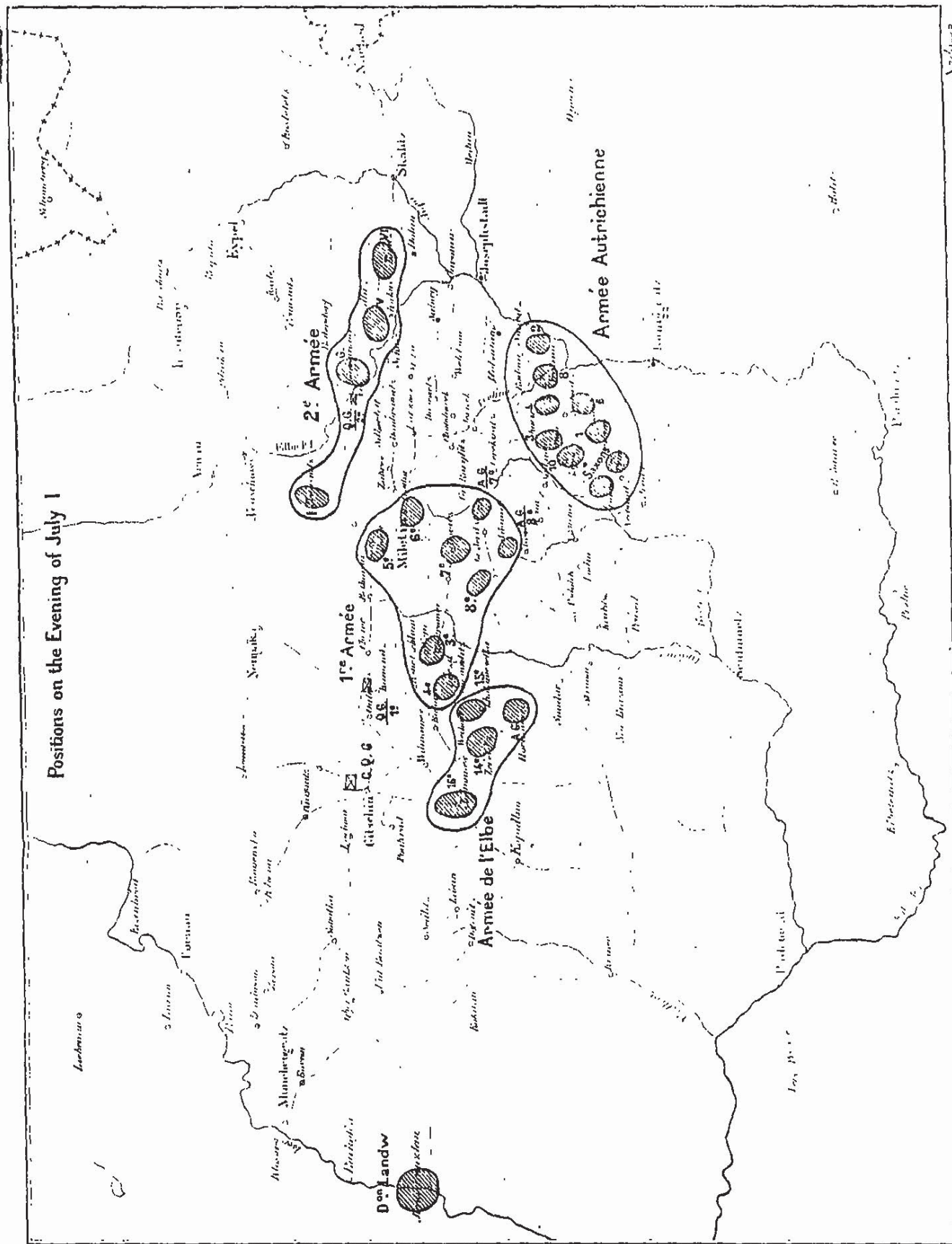


SCALE 1:320,000, 5 English Miles to 1 inch

0	5	10	15	20
0	5	10	15	20

English Miles English Feet

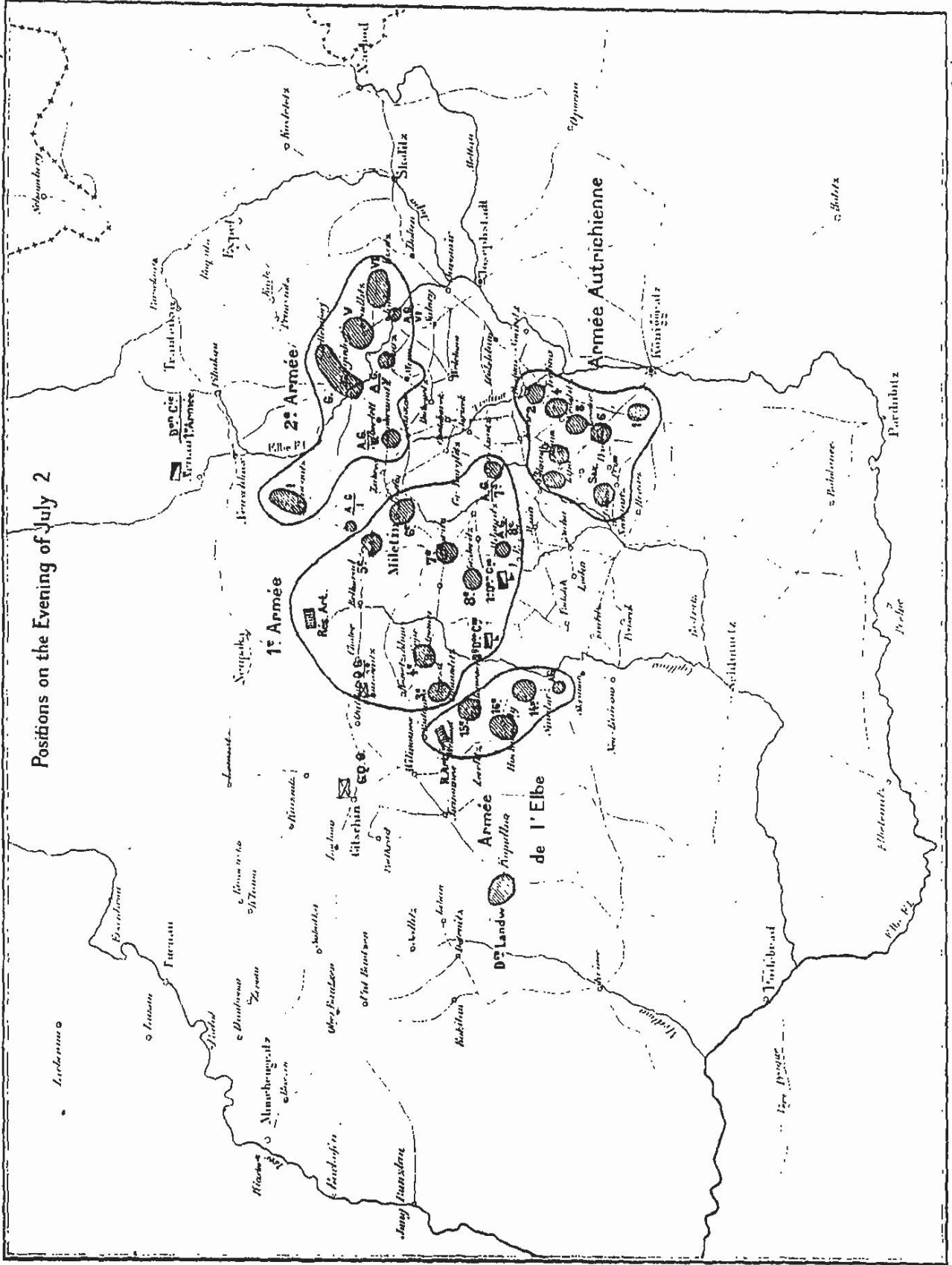
Positions on the Evening of July 1



SCALE: 1:10000. 5 English Miles to 1 inch

1870

Positions on the Evening of July 2

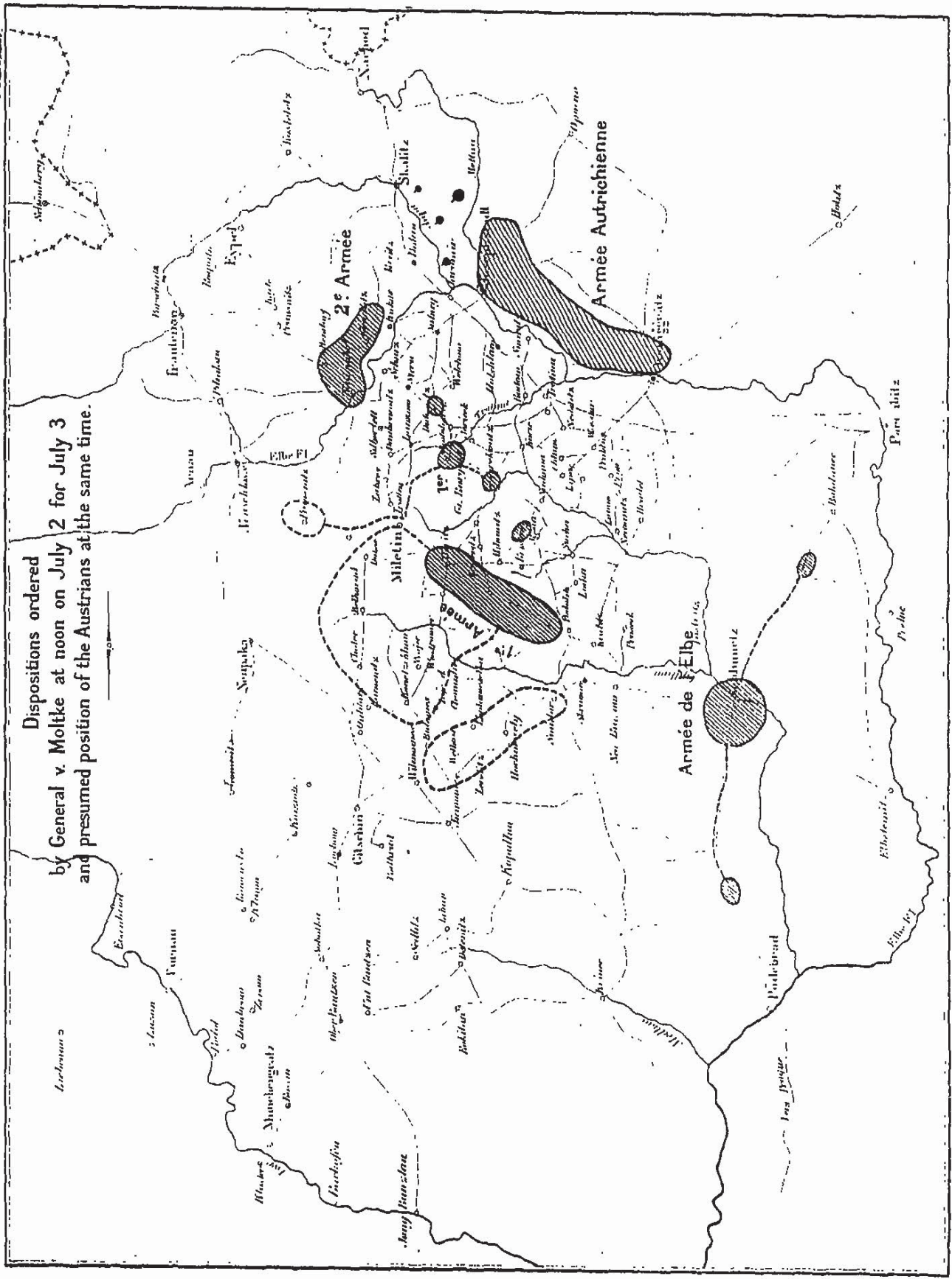


SCALE: 1:200,000. 5 English Miles to 1 Inch.

45800

45800

Dispositions ordered
by General v. Moltke at noon on July 2 for July 3
and presumed position of the Austrians at the same time.



SCALE 1:320,000 5 English Miles to 1 Inch.

0 5 10 English Miles

Sadowa
July 3

ENDNOTES

1. Gordon N. Craig, The Battle of Königgrätz, (Connecticut, 1964), p. 184.
2. Michael Howard, Carl von Clausewitz: On War, p. 177.
3. *Ibid.*, p. 177.
4. David Jablonsky, "Strategy and Operational Level of War: Part I" Parameters (Spring 1987), p. 72.
5. Don F. Riley, "The Evolution of Operational Art: The Reconquest of Burma, 1943-1945", (SOMPS, 29 May 1987): 1.
6. B. H. Liddel Hart, Strategy, New York: Praeger, 1967; 2nd ed., p. 339.
7. Craig, The Battle of Königgrätz, p. 8.
8. *Ibid.*, p. 8.
9. *Ibid.*, p. xii.
10. Hajo Holborn, Moltke's Strategical Concepts, p. 161.
11. Craig, The Battle of Königgrätz, p. 27.
12. Howard, On War, p. 576.
13. U. S. Army, Field Manual 100-5, Operations, (11 Leavenworth, KS, October 1985), p. 10.
14. Craig, The Battle of Königgrätz, p. 5.
15. Howard, On War, p. 246.
16. *Ibid.*, p. 258.
17. General von Moltke, Memorandum 135 (Berlin), 22 Jun 1866, p. 242.
18. *Ibid.*, p. 243.

19. Ibid., p. 247.
20. Ibid., p. 248.
21. Ibid., p. 254.
22. Ibid., p. 183.
23. Howard, On War, p. 102.
24. Ibid., p. 111.
25. Craig, Battle of Königgrätz, p. XI.

BIBLIOGRAPHY

Books

- Adams, W. H. Davenport. Washington and Other Great Military Commanders, London: George Routledge and Sons.
- Anderson, J. H. The Austro-Prussian War in Bohemia, 1866, London: Hugh Rees, Ltd., 1912.
- Bonhal, General H. Sadowa, London: Hugh Rees, Ltd., 1907.
- Clausewitz, Carl von. On War, ed. and translated by Michael Howard and Peter Paret. Princeton University Press, 1976.
- Craig, Gordon A. The Battle of Königgrätz, Connecticut: Greenwood Press, 1965.
- Hozier, COL, Sir H.M. The Seven Weeks War, London: Macmillan and Co. Limited, 1908.
- Malcolm, Neill. Bohemia, 1866, London: Constable and Co. Limited, 1912.
- Wagner, Arthur L. The Campaign of Königgrätz, Leavenworth, Kansas: C. J. Smith and Co., 1889.

Manuals

- Field Manual 100-5, Operations. Washington, D.C.: Headquarters Department of the Army, 1986.

Articles

Holborn, Hajo. "Moltke's Strategical Concepts," Military Affairs, Vol. 6, Fall 1942.

Horner, D. M. "Military Lessons of the Seven Weeks War," Army Journal, No. 235, December 1968.

Jablonsky, David. "Strategy and the Operational Level of War: Part 1," Parameters, Journal of the U. S. Army War College, Carlisle Barracks, PA, Vol. XVII, Spring 1987.

Luvaas, Jay. "Thinking at the Operational Level," Parameters, Journal of the U. S. Army War College, Carlisle Barracks, PA, Vol. XVI, Spring 1986.

Lykke, Arthur F. Jr. "Toward An Understanding of Military Strategy," Military Strategy: Theory and Application, U. S. Army War College, Carlisle Barracks, PA, 1986.

Manuscripts

Command and General Staff College, Ft Leavenworth, KS.
Moltke's Military Correspondence, War of 1866. Translator unknown.