



Grupo de Investigación  
**Historia Militar**



# **German Forces In Western Europe On D-Day**

Luis Nieto Caña

## 1. Preparations against the invasion

Germany had four years to prepare for the allied invasion. Heeresgruppe D<sup>1</sup> was created on 25 October 1940, and from 15 March 1941 it also acted as *Oberbefehlshaber West* (OB West), the command responsible for the Wehrmacht forces in the Netherlands, Belgium and the occupied part of France, with the exception of those that had been annexed. Its commander was Generalfeldmarschall Gerd von Rundstedt from 10 March 1942. With the occupation of Vichy France in November 1942, it extended its area of responsibility to the rest of French territory. The supreme command of the Third Reich's forces in the west was exercised by the *Oberkommando der Wehrmacht* (OKW), which in practice served as Hitler's General Staff and to which OB West was subordinate. The *Führer* aimed to structure and unify command<sup>2</sup> to optimize the organization of the defence by means of his Directive No. 40. Despite this, OB West only had authority over the Army, with little control over the units of the Luftwaffe and Kriegsmarine stationed there, which remained under the command of the *Oberkommando der Luftwaffe* (OKL) and *Oberkommando der Kriegsmarine* (OKM) respectively.

In late 1941, the OKW planned the construction of a series of fortifications along the Atlantic coast, known as *Atlantikwall*, a megalomaniacal project with great propaganda resonance, which would be approved in September 1942. Hitler expected to build 15.000 fortifications from Pas de Calais to the Bay of Biscay within nine months, that implied a concentration ranging from 15 and 20 bunkers per kilometre<sup>3</sup>, but the result of construction works was not very fruitful. Following his Directive No. 51, the German leader established Heeresgruppe z.b.V.<sup>4</sup> from the remnants of the staff of Heeresgruppe B and the staff of Generalfeldmarschall Erwin Rommel, and placed it under his direct command. Its mission was to analyse the coastal defences of the occupied countries, develop recommendations, as well as conduct studies on offensive operations against a potential landing in Western Europe, examining the organization, structure and command of the Wehrmacht troops in charge of the operation. Hitler believed that Rommel was the ideal choice to supervise and expand the fortifications, as he had accumulated extensive military experience against the Allies and also enjoyed a great reputation. The first study was implemented on the defences of the Danish coast, but the following ones analysed the state of the Cotentin Peninsula, the Netherlands and Brittany, which were under the control of OB West. Since the Hgr. z.b.V. was not under the von Rundstedt's orders, it was integrated into the command structure of OB West, in order to coordinate the defensive efforts. On 12 January 1944 the now

---

<sup>1</sup> Tessin (1966), vol. I, pp. 7-8.

<sup>2</sup> Hansen in Buckley (2006), p. 36

<sup>3</sup> Lieb (2014), p. 46

<sup>4</sup> Abbreviation for the German *zur besonderen Verfügung*, meaning for special deployment.

designated Heeresgruppe B assumed control over the 7th and 15th Armies. The first of them was responsible for the defence of the coast of Brittany and Normandy while the second had to protect the Channel area. In addition, on 24 January the Panzergruppe West<sup>5</sup>, an armoured reserve led by General der Panzertruppe Leo Geyr von Schweppenburg, was assigned to the OB West.

### **German defensive approach**

The German High Command had to consider where and when the invasion would occur, and how it would approach the defence of Atlantic Europe. Military logic pointed to the Channel as the most likely invasion point between June and July when the weather conditions were most favourable. This route not only offered the shortest distance to the French coast and a direct path towards Germany, but it simultaneously posed a significant threat to the German communication lines within France. Hitler was convinced of this possibility as well as von Rundstedt and his Chief of Staff, General Günther Blumentritt. Rommel also thought it was the most likely scenario. However, it was also obvious that the Germans would concentrate more defences and divisions precisely in that place, which would negate any element of surprise and therefore greatly complicate an operation as complex as a landing. Regarding their approach, Germany had relinquished the possibility of preventing the invasion by destroying the enemy fleet by the end of 1943<sup>6</sup> due to the heavy losses that both the Luftwaffe and the Kriegsmarine had suffered at the hands of the Allies during the preceding year. This forced Germany to focus on repelling the invasion on land, where their forces, as the precedents in Italy had already shown, managed to slow down the Allied advance thanks to their operational capacity.

The defensive system consisted of two main elements. The first was the line of fortifications that Hitler had ordered to be built along the Atlantic coast. Although this was not seen as the main defence by the High Command, it was intended to help the land forces, which had been weakened by the war, to hold off the enemy and make it easier to defend the beaches until reinforcements arrived. To achieve this, The Germans erected bunkers and fortified positions, coastal batteries, minefields and intricate systems of trenches and barbed wire. Obstacles<sup>7</sup> were also placed on the beaches to damage the hulls of boats and prevent the advance of tanks. In addition, large areas near the coast were flooded and stakes<sup>8</sup> were installed in large areas to prevent any invasion by airborne forces. This static defence was in contrast to the mobile reserve, the force responsible for carrying out the counterattack that would send the Allies back to sea.

---

<sup>5</sup> Tessin (1966), V. II, p. 282.

<sup>6</sup> Lieb (2014), p. 48

<sup>7</sup> Such as Czech hedgehogs -*Tschechenigeln*- and *Hemmkurven*.

<sup>8</sup> Known as *Rommel-Spargel*, Rommel's asparagus.

Then the upcoming question was how to deploy this reserve, but German officers remained divided on this issue, having not reached a consensus. Sparked by their contrasting experiences in Africa and the Soviet Union, Field Marshal Rommel and General Geyr von Schweppenburg advocated for two opposing views, which clashed in a heated debate. Having witnessed the Allied airpower's devastating impact during the campaigns against the Allies, Field Marshal Rommel concluded that operating a mobile armoured force was no longer feasible. He firmly believed that repelling the invasion effectively hinged on the German Army's ability to defeat the enemy on the beaches themselves. Rommel emphasized the critical importance of the first 24 hours, asserting that this initial period would determine the ultimate outcome of the battle<sup>9</sup>. The German Field Marshal advocated for keeping the armoured forces dispersed and positioned close to the coastline, and insisted on bringing these forces under his direct command. This conception diverged from the German armoured doctrine and the operational approach of the panzer reserve commander. Despite having served as a military attaché in London during the 1930s, Geyr was a skilled armoured warfare officer with great operational experience on the Eastern Front and accustomed to the relative freedom of manoeuvre that characterized that theatre of operations. He advocated for keeping the Panzer divisions concentrated inland to launch a counterattack against the Allied forces once they advanced deeper into the territory<sup>10</sup>. Von Rundstedt concurred with the Panzergruppe West commander's proposal for a flexible defence, but as in all matters, the ultimate decision rested with Hitler. The German leader resolved to divide the Panzer divisions<sup>11</sup> between the two generals, a decision that met with dissatisfaction from both parties. This further weakened German responsiveness, which was already severely hampered by the convoluted command structure in Normandy.

## **2. Structure of the German Forces**

The German command structure during the Normandy campaign was characterized by its complexity and confusion, and it proved to be a significant vulnerability for their armed forces during the invasion. Hitler's obsession with maintaining control and his constant interference in military decision-making, coupled with the lack of coordination and cooperation between different military branches, rendered the German military response ineffective. In his capacity as OB West, Field Marshal von Rundstedt commanded Army Group B and Panzer Group West. However, in practice, his authority was significantly restricted by the interference of the Führer's headquarters. Rommel maintained direct communications with Hitler, providing him with regular updates on operations. Additionally,

---

<sup>9</sup> "...wenn es nicht gelänge, den gelandeteten Feind innerhalb einer kurzen Frist wieder ins Meer zu werfen, ist nicht allein ein Gefecht, eine Schlacht, ein Feldzug, sondern der ganze Krieg verloren." Hansen in Buckley (2006), p. 39

<sup>10</sup> *Schlagen aus der Nachhand*. Lieb (2014), p. 50

<sup>11</sup> Each commander was granted control over three divisions, while Hitler retained command of four others.

General Geyr von Schweppenburg's Panzer forces could not be mobilized without explicit orders from the Führer. Similarly, both the Luftwaffe and Kriegsmarine were outside of the hierarchical sphere of OB West, and Luftflotte 3 and Marinegruppenkommando West constantly sought to maintain their operational independence.

OB West consisted of two army groups. Rommel's Heeresgruppe B was a large force stationed in northern France, guarding the Atlantic coast from the Loire to the Scheldt Estuary. In turn, his units were divided between two armies. The 7th Army, led by Generaloberst Friedrich Dollmann, was deployed along the coasts of Brittany and Normandy to the Dives River which marked the boundary with the neighbouring 15th Army. The latter was responsible for defending the canal, the area where the Germans believed the landings would take place. To defend the southern half of France, Armeegruppe G was formed on 28 April 1944 under the command of Generaloberst Johannes Blaskowitz. This group was considerably smaller, comprising two armies: the 1st Army, commanded by General der Infanterie Kurt von der Chevallerie, who had recently been promoted, defending the southern Atlantic coast, and the 19th Army -General der Infanterie Georg von Sodenstern until his resignation in June- deployed along the Mediterranean. The German forces also had a significant reserve of ten armoured divisions of the Panzergruppe West, four of them belonging to the Waffen-SS, which were distributed throughout France. In the Netherlands, the Germans had another three divisions protecting the coast. On 1 June 1944 German ground forces in France, Belgium, and the Netherlands, along with Waffen-SS troops and Luftwaffe ground personnel, totalled 880,000 men. According to Zetterling<sup>12</sup>, this figure should be reduced to around 640,000 to get closer to the actual number of combatants who participated in the campaign. Another 350,000 belonged to the Luftwaffe and 100,000 to the Kriegsmarine.

### **Composition of German Units**

The composition and organization of German divisions varied considerably in terms of personnel, weaponry, training, and combat capabilities. Often, their internal structure and equipment did not correspond to official tables<sup>13</sup>. The bulk of the ground forces consisted of infantry divisions deployed along the coastline, but half of these units were *bodenständig* (static), without organic transport. These were replacement or occupation units that had been formed since 1941. The divisionary strength was reduced from 17,200 to 12,800 men, but many units did not even reach this figure. By 1944, the Germans had suffered significant losses in both personnel and material, and their divisional system was beginning to crumble due to the exhaustion of war. The triangular structure of divisions based on 3 infantry

---

<sup>12</sup> Zetterling (2019), pp. 37-44

<sup>13</sup> Kriegsstärkenachweisungen

regiments plus one artillery regiment was abandoned, replaced by a smaller template with three regiments of two battalions or two regiments of three battalions, with more limited artillery support. In many cases, units without a fixed structure were formed to enhance combat effectiveness, called *Kampfgruppen*. In addition to artillery, anti-tank artillery battalions or *Panzerjäger-Abteilungen* provided valuable support to divisions, equipped with 75mm Pak 40 cannons and in some cases with StuG III assault guns. Although some infantry divisions had motor vehicles, the vast majority relied on horse-drawn transport. The lack of personnel meant that they were largely composed of older men, or those who were unfit for military service due to physical or health problems, and they were equipped with surplus or captured material. Many of them had been reinforced by the *Ost-Batallione*, "volunteers" from prisoners of war on the Eastern Front to serve in the Wehrmacht<sup>14</sup>. Overall, forty percent of the soldiers had combat experience, other forty percent were young recruits, and twenty percent were older men. Their short training did not favour unit cohesion either. Just over half of the officers had combat experience on the Eastern Front, and the generals in command of the units in the West had been relieved of command due to health reasons or poor performance as commanders. On the other hand, the Germans also had three *Fallschirmjäger* divisions, organized with nine battalions, and with great combat capability.

The German forces' main asset was their Panzer divisions. They had the best commanders, troops, and equipment, being far superior to the rest of the units, and were also completely motorized. Just as with the infantry units, no Panzer division had the same structure. As a general rule, they had a total of 14,750 men, organized into an armoured regiment of two battalions, one equipped with Panther tanks and the other with Panzer IV tanks, and four motorized infantry battalions divided into two regiments, one of which had half-tracks. The SS Panzer divisions had six infantry battalions, one of which was also equipped with half-tracks. Some armoured divisions also had tank destroyers or assault guns that were very effective in the bocage against enemy tanks. The Germans also had heavy tank battalions, which were independent units equipped with the famous Tiger I tanks. German tanks were far superior in armour and firepower, having the advantage of being able to penetrate the armour of Allied tanks at a range five times greater than that of the Allies. In total, the Germans had 1,600 tanks and tank destroyers for the Normandy campaign.

In the Allied landing zone, Germany had deployed the LXXXIV Corps under General Marcks on 6 June. The 716. ID (bo.) was defending the Sword, Juno and Gold sectors, as well as part of the Omaha sector. It lacked experience and its strength was less than 8,000

---

<sup>14</sup> Ten percent were not ethnic Germans but men recruited from the areas annexed by the Reich. 60,000 soldiers came from the east, being Russians or belonging to other ethnic minorities, many of whom enlisted in the military service to escape the deadly prisoner of war camps. Lieb (2014), p. 54

men, divided into two infantry regiments. In contrast, the 352. ID had three regiments positioned between Isigny-sur-Mer y Bayeux, near Omaha Beach. Most of its recruits were between 18 and 19 years old, bringing the total number of soldiers to 12,734. Its anti-tank battalion was equipped with 14 Marder III self-propelled guns and 10 StuG III assault guns. In the Vire River estuary area, defending the important city of Carentan was Fallschirmjäger-Regiment 6. In the Cotentin Peninsula, the Germans had three divisions. The 709. ID (bo.) defended the eastern coast, while the 243. ID (bo.) did the same in the west. The first had three regiments with 12,320 men with an average age of 36, compared to the 11,529 of the 243rd, equipped with another 14 Marder and 10 StuG III assault guns. The 91. Luftlande Infanterie Division, on the other hand, was incompleated with only 7,500 soldiers. It was deployed in the central part of the Peninsula. In addition, another division, the 319. ID, was part of the corps, but was located on the Channel Islands. As part of the mobile reserve, the 21st Panzer Division was located south of Caen. This veteran unit was almost at full strength with 16,925 men, 104 Panzer IVs and 46 light tanks, most of them Somuas, and two infantry battalions equipped with half-tracks. In the following days, many other divisions arrived in the area, changing the command structure.

Luftflotte 3 was in charge of air operations in France and the Netherlands, and was commanded by the experienced Field Marshal Hugo Sperrle. It was made up of Fliegerkorps IX, with conventional bombers, Fliegerkorps X, with some units specialized in naval bombing, Fliegerkorps II, with fighter-bombers, Jagdkorps II in command of the German fighter force and the Aufklärungsgruppe 123. Despite this, the Luftwaffe was very weakened, having only 160 Me-109 and Fw-190 fighters, and 552 bombers, most of them Ju-88s from Fliegerkorps IX, of which only a little more than half were operational<sup>15</sup>. In the first six months of 1944, the Luftwaffe had lost almost 99% of its fighter pilots. The replacements did not have enough experience or training time. On the other hand, the size of the anti-aircraft units had increased as the air force began to decline. The Luftwaffe had the support of the extensive III. Flak-Korps, intended to provide anti-aircraft defence and indirect fire support to the ground troops, equipped with 3,500 20mm, 37mm and 88mm cannons. The German naval forces of MGK West were also no danger to the powerful Allied navy, and were limited to 130 submarines, 5 destroyers, 50-60 Schnellboote, 50-60 R-Boote -minesweepers-, 25-30 M-Klasse and sixty other assorted vessels.

---

<sup>15</sup> Corum in Buckley (2006), p. 145; Lieb sets the number of aircraft available at 919, p. 53. Both cite no more than 500 operational aircraft.



## Structure of the German High Command

<b>Oberster Befehlshaber</b>				
Adolf Hitler				
<b>Oberkommando der Wehrmacht</b>				
Gfm. W. Keitel				
<b>Oberkommando der Marine (OKM)</b>				
Gross Admiral K. Dönitz				
<b>Marinegruppenkommando West</b>				
Admiral T. Krancke				
<b>Oberkommando der Luftwaffe (OKL)</b>				
Reichsmarschall H. Göring				
<b>Luftflotte 3</b>				
Gfm. H. Sperrle				
<b>II. Fliegerkorps</b>	<b>IX. Fliegerkorps</b>	<b>X. Fliegerkorps</b>	<b>II. Jagdkorps</b>	<b>III. Flakkorps</b>
<b>Oberbefehlshaber West</b>				
Gfm. G. von Rundstedt				
<b>Heeresgruppe B</b> Generalfeldmarschall E. Rommel		<b>Armeegruppe G</b> General Oberst J. Blaskowitz		
<b>7. Armee</b>	<b>15. Armee</b>	<b>1. Armee</b>	<b>19. Armee</b>	
<b>Panzergruppe West</b> General der Panzertruppe L. Geyr von Schweppenburg		<b>Wehrmachts-Befehlshaber Niederlande</b> General der Flieger F. Christiansen		

# Oberbefehlshaber West

Gfm. G. von Rundstedt

## Heeresgruppe B

Gfm. E. Rommel

**XXXXVII-Res** Gen. der Panzertruppe Hans Freiherr von Funck

2. Panzer Division / 21. Panzer Division / 116. Panzer Division

### 7. Armee

Generaloberst F. Dollmann

**XXV** Gen. der Artillerie W. Fahrnbacher  
**Western Brittany**

343. Infanterie Division (bo.)  
265. Infanterie Division (bo.)  
275. Infanterie Division  
353. Infanterie Division

**LXXXIV** Gen. der Artillerie E. Marcks  
**Normandy**

319. Infanterie Division (bo.)  
243. Infanterie Division (bo.)  
91. Luftlande ID - Fallsch.Jg.Rgt.6  
709. Infanterie Division  
352. Infanterie Division  
716. Infanterie Division (bo.)

**LXXIV** Gen. der Infanterie E. Straube  
**Northern Brittany**

77. Infanterie Division  
266. Infanterie Division (bo.)

**II. Fsch.** Generalleutnant E. Meindl  
**Britanny - Rennes**

3. Fallschirmjäger-Division  
5. Fallschirmjäger-Division

### 15. Armee

Generaloberst H. Ritter von Salmuth

**LXVII** Gen.d.Inf. W. Fischer v. Weikersthal  
**Area of Abbeville**

344. Infanterie Division (bo.)  
348. Infanterie Division (bo.)

**LXXXIX** Gen.d.Inf. W. Fh. Von und zu Gilsa  
**Coast of Belgium**

48. Infanterie Division (bo.)  
712. Infanterie Division (bo.)  
165. Reserve Division

**LXXXII** Gen. der Artillerie J. Sinnhuber  
**Area of Pas de Calais**

18. Luftwaffen-Felddivision (bo.)  
47. Infanterie Division (bo.)  
49. Infanterie Division (bo.)

**LXXXI** Gen. der Panzertruppe A. Kuntzen  
**Eastern Normandy**

17. Luftwaffen-Felddivision (bo.)  
245. Infanterie Division (bo.)  
711. Infanterie Division (bo.)

**z. Vfg.**

(at disposal)

326. Infanterie Division / 331. Infanterie Division / 182. Reserve Division  
84. Infanterie Division / 346. Infanterie Division / 85. Infanterie Division

# Oberbefehlshaber West

Gfm. G. von Rundstedt

## Armeegruppe G

Generaloberst J. Blaskowitz

**LVIII-Res** Gen. der Panzertruppe W. Krüger

9. Panzer Division / 11. Panzer Division / 2. SS Pz.Div. *Das Reich*

**LXVI-Res** Gen. der Artillerie W. Lucht

157. Reserve Division / 189. Reserve Division

## 1. Armee

General der Infanterie K. von der Chevallerie

**LXXX** Gen. der Infanterie C. Gallenkamp  
**Area of La Rochelle**

**LXXXVI** Gen. der Infanterie H. von Obstfelder  
**Aquitaine**

158. Reserve Division  
708. Infanterie Division (bo.)

159. Reserve Division  
276. Infanterie Division

## 19. Armee

Generaloberst H. Ritter von Salmuth

**LXII** Gen. der Infanterie F. Neuling  
**Area of the French Riviera**

**Korpsgr. Knieß** Gen.dInf. B. Knieß  
**Rhône**

242. Infanterie Division (bo.)  
148. Reserve Division

244. Infanterie Division (bo.)  
338. Reserve Division

**IV. Lw-Feld** General der Flieger E. Petersen **Languedoc**

271. Infanterie Division / 272. Infanterie Division / 277. Infanterie Division

## Wehrmachtbefehlshaber Niederlande

General der Flieger F. Christiansen

## LXXXVIII

General der Infanterie W. Fahrmbacher

17. Lw-Felddivision (bo.) / 719. Infanterie Division (bo.) / 347. Infanterie Division (bo.)

## Panzergruppe West

General der Panzertruppe Leo Geyr von Schweppenburg

**LXIV-Res** Gen. der Pioniere K. Sachs

**I. SS** Oberst-Gruppenführer J. Dietrich

10. Panzer-Brigade (x10 Pz.Rgt)  
schwere SS Pz. Abt. 102  
schwere SS Pz. Abt. 103

1. SS Pz.Div. *Leibstandarte AH*  
12. SS Pz.Div. *Hitler Jugend*  
17. SS PzGr.Div. *Götz von Berlichingen*  
schwere SS Pz. Abt. 101

130. Panzer Lehr

# OB WEST

6 de junio de 1944



- .ID Infanterie-Division
- .Pz Panzer-Division
- .FD Fallschirmjäger-Division
- .LLD Luftlande-Division
- .LD Luftwaffen-Felddivision
- .RD Reserve-Division

### 3. The German Response to the Invasion

The German response to the D-Day landings was hampered by a number of factors. Firstly, the Wehrmacht lacked both a unified command structure and consensus amongst its commanders regarding a strategic approach. Furthermore, the Allies, through their successful deception campaign, had led the Germans to believe that the invasion would take place in the Pas de Calais region. Even after the actual landings, the German High Command maintained a significant portion of the 15th Army in the area, anticipating the 'true' enemy assault. They also held a significant operational advantage through the decryption of German communications, and with a few exceptions, they had first-hand information about the enemy's situation and movements. To make matters worse, many of the commanders were not at their headquarters, or not even in the area, such as Rommel himself, who was celebrating his wife's anniversary, or SS-Oberst-Gruppenführer Sepp Dietrich, commander of the I. SS-Panzerkorps. Others, including the commander of the 7th Army, were in Rennes for a war game. It didn't help that the Führer did not approve the deployment of Panzer divisions against the Allied forces landing on the beaches until 16:00<sup>16</sup>. On April 26, Rommel obtained Hitler's approval to take control of three Panzer divisions: the 2nd, 21st, and 116th. However, only the 21st Panzer Division was close enough to the landing area to engage in combat during D-Day. As a result of the German leader's decision, neither Rommel had enough Panzer divisions to cover the coast, nor von Rundstedt had a reserve capable of carrying out the desired counterattack. In addition, the Allies' air supremacy made any movement very dangerous or directly impossible, and the Panzer units suffered heavy losses before reaching the battlefield, requiring as many days to enter combat<sup>17</sup>. Despite these constraints, the German commanders were still superior in the operational sphere, and the Normandy terrain offered certain benefits for conducting defensive operations. In any case, the German Army failed to take advantage of its window of opportunity to prevent the Allies from landing and consolidating the bridgehead, and once they could accumulate enough troops and resources, the campaign was decided.

---

<sup>16</sup> Hitler was sleeping at the time of the invasion and could not be woken up. Keitel was also not awake, and Jodl, who woke up at 06:00, was not convinced. Wood (2007), pp. 62-63.

<sup>17</sup> As an example, it can be cited that the headquarters of Geyr von Schweppenburg was bombed on June 11, injuring the German commander.

## Bibliography

- Badsey, S. (1990). *Normandy 1944. Allied Landings and Breakout*. London: Osprey Publishing.
- Buckley, J. (Ed.), (2006). *The Normandy Campaign 1944*. London: Routledge.
- Lieb, P. (2014). *Unternehmen Overlord. Die Invasion in der Normandie und die Befreiung Westeuropas*. München: C.H.Beck.
- Man, J. (1994). *The Penguin Atlas of D-Day and the Normandy Campaign*. London: Viking
- Mitcham, S.M. Jr. (2007). *German Order of Battle. 2 Vol.* Mechanicsburg: Stackpole Books.
- Schmeelke, K.-H. y M. (1994). *Invasion: D-Day 6. Juni 1944. Deutsche Befestigungen und Geschütze in der Normandie Damals und Heute*. Dornheim: Podzun-Pallas Verlag.
- Tessin, G. (1966). *Verbände und Truppen der Deutschen Wehrmacht und Waffen SS im Zweiten Weltkrieg 1939-1945. 17 Vol.* Frankfurt am Main: E.S. Mittler & Sohn.
- Wood, J.A. (Ed.), (2007). *Army of the West. The Weekly Reports of German Army Group B From Normandy to the West Wall*. Mechanicsburg: Stackpole Books.
- Zetterling, N. (2019). *Normandy 1944. German Military Organization, Combat Power and Organizational Effectiveness*. Havertown: Casemate Publishers