

## **The Twenty Years Armistice and the “Mechanical Force”: French Interwar Defense Policy and the Debacle of 1940**

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The problem facing France at the end of 1918 was stark: France had won the Great War but lay economically and demographically crippled by the end of the conflict. The Treaty of Versailles had secured French security for the foreseeable future, but French leaders were pessimistic about France's ability to hold off another concerted German attack.<sup>1</sup> Worse still, the Allied support that France had counted upon in the immediate aftermath of the war; the wartime alliance with the United States and Great Britain, disappeared soon after the war.<sup>2</sup> France stood alone, with only the nascent states of Eastern Europe to rely on for support, and little Belgium. With limited support, French policymakers realized the inevitability of defeat in another total war with Germany in the same manner as 1870 and 1914.<sup>3</sup> Hence, French hopes rested on the strength of its own forces to resist any initial German aggression, but also crucially, on the prospect of external intervention.

At the same time, the Great War had demonstrated the rise of new technologies and doctrinal methods which had allowed the Allies to breach the Hindenburg line and destroy the German army in the West in 1918. Within this context, French policymakers tried to grasp for new solutions with which France could buy time: time for allied support to enter the war, time for France to mobilize, time for economic warfare to take effect. How best could the French army make use of the new technologies of the modern

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<sup>1</sup> Jeffery A. Gunsburg, *Divided and Conquered: The French High Command and the Defeat of the West, 1940* (Praeger, 1979), 5-13.

<sup>2</sup> Gunsburg, *Divided and Conquered*, 5-13.

<sup>3</sup> Robert A. Doughty, *The Seeds of Disaster: The Development of French Army Doctrine, 1919-39* (Archon Books, 1985), 41-45.

age? The lessons of the Great War had been multi-fold. New motorized vehicles had proven highly useful at providing mobility to a strategic reserve.<sup>4</sup> Tanks, as infantry support vehicles, were highly effective in a combined arms assault in breaching the trenches of the western front. Planes and air superiority had been important in ensuring good reconnaissance and preventing enemy intelligence gathering, and the beginnings of assault from the air had been seen. Artillery emerged as the undisputed king of the battlefield, key to any major offensive. Maréchal Phillipe Pétain, the hero of Verdun, laid out his thoughts thusly: The offensive is the fire which advances, the defensive is the fire that stops. The cannon conquers, the infantry occupies. (*L'offensive, c'est le feu qui avance ; la défensive, c'est le feu qui arrête. Le canon conquiert, l'infanterie occupe.*)<sup>5</sup> A command of all these tools had brought France victory in the Great War and seemed necessary for any future war.

But the Great War taught another lesson: the advantages conferred by strong fortifications. In this regard, the shadow of Verdun hung over the leaders of the French army. Because of Pétain's *norja* policy, most of the French army, and consequently most of France's leaders, military or civilian, had fought at Verdun.<sup>6</sup> In that conflict, the specter of massive forts like Douaumont and Vaux had dominated the battle, allowing for fire to be poured down upon attacking infantry columns, frustrating any offensive. It is not for nothing that Alistair Horne once argued that the loss of Douaumont in the early days of the battle cost France two hundred thousand men.<sup>7</sup> The ability

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<sup>4</sup> Robert Forczyk, *Case Red: The Collapse of France* (Osprey Publishing, 2017), 46.

<sup>5</sup> Paul Valéry, 'Réponse Au Discours de Réception de Philippe Pétain | Académie Française', 22 January 1931. <https://www.academie-francaise.fr/reponse-au-discours-de-reception-de-philippe-petain>. Pétain later became infamous for his collaboration with the Nazis.

<sup>6</sup> Alistair Horne, *The Price of Glory: Verdun 1916*, Revised ed. (Penguin Books, 1994), 875-890.

<sup>7</sup> Horne, *The Price of Glory*, 875-890.

of a small number of troops, ensconced in strong defensive positions, to hold up entire divisions and inflict horrendous casualties on the attackers, had been well-noted by the French.<sup>8</sup>

In this context, France also faced a series of conflicting priorities during the interwar years. The destruction of the war, the cost of reconstruction, and the subsequent economic malaise of the depression ensured limitations on France's defense expenditures.<sup>9</sup> Internal political divisions between the right and the left remained fractious.<sup>10</sup> During this period of time, France suffered from a serious lack of funds for the military budget, with pay for soldiers remaining low.<sup>11</sup> This created a situation in which the military struggled to attract career professionals that would form the core of the military.<sup>12</sup> As another result of this budgetary weakness, spending on new weapons, training, and other necessary expenditures remained inadequate to sustain the totality of French defense requirements, which ranged from the colonies to the Rhine. Most of the army's budget, therefore, went just to upkeep and personnel, with only fortifications receiving significant multi-year funding until 1936.<sup>13</sup> The Ministry of Armament was dissolved, and the defense industry was left to the private sector.<sup>14</sup> The aviation industry fell from an employment level of 200,000 in 1919 to 5,000, and reached only 15,000 by 1929.<sup>15</sup>

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<sup>8</sup> Horne, *The Price of Glory*, 875-890.

<sup>9</sup> Judith M. Hughes, *To the Maginot Line: The Politics of French Military Preparation in the 1920s* (Harvard University Press, 1971), 111.

<sup>10</sup> Hughes, *To the Maginot Line*, 35-36, 123, 209.

<sup>11</sup> Hughes, *To the Maginot Line*, 35-36, 123, 209.

<sup>12</sup> Hughes, *To the Maginot Line* 35-36, 123, 209.

<sup>13</sup> Laurent Giovachini, *L'armement français au XXe siècle* (ELLIPSES, 2000), 40-41.

<sup>14</sup> Giovachini, *L'armement français au XXe siècle*, 40-41.

Manpower was also a serious issue. Conscription was reduced from three years to eighteen months in 1923 and reduced once again to one year in 1928.<sup>16</sup> While in 1935 this was raised to two years, the manpower available did not increase by as much as it should have; the recruitment class of 1936-1940 was almost half of what it should have been due to the horrendous losses of the First World War and the accompanying drop in birthrates in the intervening years.<sup>17</sup> Thus, France operated on a critical manpower shortage that increased the defensive tendencies of the high command; the nation could not afford another war as costly as in 1914.<sup>18</sup>

It was a combination of these strategic challenges that determined how France would fight the next war. Lacking the funds and the political will for a professional army and knowing that the next war would be total in nature, France settled on an army based primarily on mass mobilization of conscripted and untrained civilians.<sup>19</sup> Additionally, the general staff felt that France's economic and demographic weakness demanded a doctrine and strategy of caution and economy. Battle became thought of as something to be managed carefully, *methodically*, to avoid wasteful casualties for the long war to come. The French army hence adopted a doctrine of "methodical battle." The weakness in manpower and the reliance on conscription further highlighted the importance of fortifications to buy time for mobilization and would (theoretically) allow the French army to hold more ground with less troops. This would free up the best of France's divisions for maneuver.<sup>20</sup>

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<sup>15</sup> Giovachini, *L'armement français au XXe siècle*, 40-41.

<sup>16</sup> Giovachini, *L'armement français au XXe siècle*, 40-41.

<sup>17</sup> Hughes, *To the Maginot Line*, 187.

<sup>18</sup> Doughty, *The Seeds of Disaster*, 41-45.

<sup>19</sup> Forczyk, *Case Red*, 39.

<sup>20</sup> Forczyk, *Case Red*, 39.

### **Differing Strategic Priorities: The Colonies and Naval Spending**

While to any historian the threat from Germany after 1933 looms large in the imagination, we must also realize that, in the interwar years, a series of other issues also took up France's strategic focus. For one, France was still a global empire, with a variety of police commitments in the colonies. From Algeria to Indochina, vast amounts of colonial territory needed to be garrisoned. In 1935, 40% of the French army was deployed overseas.<sup>21</sup> This commitment often came at the expense of the metropole, where the army was undermanned, underequipped, and undertrained due to the lack of professional NCOs and officers.<sup>22</sup>

This large colonial commitment proved to be both necessary and costly. France continued to intervene in colonial affairs in Syria in 1920 and 1925, and in Morocco during the Rif War of 1924-1926. The conquest and suppression of Syria required consistent commitment of blood and treasure, with an estimated total of 5 billion francs spent on maintaining the French mandate, and the Rif War in Morocco required the commitment of 200,000 troops under Petain and further billions of francs to crush the revolt, with a lingering troop commitment of 35,000 into 1934.<sup>23</sup> Indochina remained restive, with the attempted Yen Bai mutiny in 1930 by the Vietnamese Nationalist Party (VNQDD), the Vietnamese equivalent to the Chinese Nationalist Party (KMT).<sup>24</sup> As such, while French high command remained focused on the defense of the metropole, they could not help but devote significant efforts to the counterinsurgency campaigns in the colonies. Some

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<sup>21</sup> Forczyk, 37-39.

<sup>22</sup> Pierre Rocolle, *La guerre de 1940* (A. Colin, 1990), 56-60.

<sup>23</sup> Frederic Danigo, 'France and the Rif War: Lessons from a Forgotten Counterinsurgency War (Northern Morocco - April 1925 - May 1927),' United States Marine Corps Command and Staff College, 2010. <https://apps.dtic.mil/sti/tr/pdf/ADA603341.pdf>.

<sup>24</sup> Tobias Frederik Rettig, 'French Military Policies in the Aftermath of the Yên Bay Mutiny, 1930: Old Security Dilemmas Return to the Surface'. *South East Asia Research* 10, no. 3 (11 January 2002): 310. <https://doi.org/10.5367/000000002101297099>.

authors have posited that this commitment might have led to a diversion of focus between conventional operations and counterinsurgency operations.<sup>25</sup> While there is no direct evidence to indicate that this was the case, the diversion of manpower and funding was deleterious enough to an army short of resources, especially from the period of 1925-1935.

Germany was not the only threat on the minds of French defense planners. Italy loomed large in the French imagination, especially the threat from the *Regia Marina*.<sup>26</sup> Beginning in 1936, both the French and Italian navies embarked on large rearmament programs in response to increasing tensions between France and Italy.<sup>27</sup> The navy thus continued to receive a large amount of investment. By 1940, France had the world's fourth largest navy, and invested billions of francs in building bases in North Africa, new submarines, new battleships, and an aircraft carrier.<sup>28</sup> From 1925-1935, the French navy budget took up about 20-25% of the overall French defense budget, and in 1938, the navy appropriated about 2.2 billion francs for the construction of the new naval base in Mers-El-Kebir.<sup>29</sup> This was after considerable sums had already been spent on the naval base in Bizerte, which was ultimately assessed to be too vulnerable to Italian air and naval power from Sicily and Sardinia.<sup>30</sup> In comparison, the cost of the Maginot Line was about 5.3 billion Francs.<sup>31</sup> The Italian threat also necessitated the

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<sup>25</sup> Forczyk, *Case Red*, 41.

<sup>26</sup> Reynolds M. Salerno, 'The French Navy and the Appeasement of Italy, 1937-9'. *The English Historical Review* 112, no. 445 (1997): 70-73.

<sup>27</sup> Salerno, 'The French Navy and the Appeasement of Italy, 1937-9,' 70-73.

<sup>28</sup> Salerno, 'The French Navy and the Appeasement of Italy, 1937-9,' 70-73.

<sup>29</sup> Olivier Louis, 'De Bizerte à Mers El-Kébir: les bases navales d'Afrique du Nord dans l'Entre-deux-guerres'. *Revue historique des Armées* 217, no. 4 (1999): 31-33. <https://doi.org/10.3406/rharm.1999.4877>.

<sup>30</sup> Louis, 'De Bizerte à Mers El-Kébir,' 37-38.

construction of an Alpine defensive line on the border with Italy, which was much less complex than the Maginot Line but nevertheless required the commitment of scant resources.<sup>32</sup>

### **The Popular Front, Daladier, and the Rearmament effort, 1936-1940.**

In 1936, with tensions heating up between France and Germany, a new government took power in France: The Popular Front. Thereafter, rearmament started to take on increasing political and industrial priority.<sup>33</sup> Huge sums started to be devoted to important rearmament projects. For the first time since the Great War, France's military had the sums needed to start investing in new capabilities. In the army, the share of the budget devoted to the acquisition of new equipment reached 50%.<sup>34</sup> While the Popular Front did not last long, the succeeding government of Daladier did not let up the pace of rearmament.

### **Tanks and Armored Vehicles**

When Charles De Gaulle made his famous appeal of 18th June, he claimed that France had been “submerged by mechanical force” (*submergés par la force mécanique*). While it may have been true that France had been defeated by an enemy that utilized “mechanical” means of armored warfare combined with close air support, the enemy certainly did not possess a quantitatively superior force. By 1940, the French army had been well equipped and was comparable to its German equivalent, despite the conservative nature of the French high command. How did this happen? The governments of the Popular Front and Edouard Daladier's coalition

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<sup>31</sup> Philippe Garraud, ‘La construction de la ligne Maginot alpine et son emploi en 1940: un système défensif novateur et efficace,’ *Guerres Mondiales et Conflits Contemporains* 259, no. 3 (29 September 2015): 93–94, 97-98. <https://doi.org/10.3917/gmcc.259.0093>.

<sup>32</sup> Garraud, ‘La construction de la ligne Maginot alpine et son emploi en 1940,’ 93-94.

<sup>33</sup> Laurent Giovachini, *L'Armement Français au XXe Siècle* (ELLIPSES, 2000), 54.

<sup>34</sup> Giovachini, *L'Armement Français au XXe Siècle*, 54.

embarked on a series of large rearmament bills from 1936 onwards. In 1936, an arms program of 14 billion francs was approved.<sup>35</sup> In 1938, a further 12 billion francs was approved for artillery and antiaircraft guns.<sup>36</sup> In 1939, the largest sum yet, of 65 billion francs, was slated for the years 1940-1943.<sup>37</sup> This led to an estimated doubling of military production, especially in the key priority areas of tanks, anti-tank guns, anti-aircraft guns, as well as motorized and track support vehicles. By 1939, about 2,838 tanks had been produced, rising to 4,500 by June 1940, when the blow from the Germans came.<sup>38</sup> This extraordinary production of tanks, including the excellent SOMUA S-35 and Char-B1, bestowed upon France a substantial advantage in the number of tanks. In addition, French tanks of the first line, which included the aforementioned S-35 and B1 tanks, possessed thicker armor and better guns than the best German equivalents, the Panzer III and IV, while other French tanks like the Hotchkiss H35 and H39 were at least comparable to similar German tanks like the Panzer I and II.<sup>39</sup> More to the point, in June 1940, the Germans possessed about 2,500 tanks while the French had 4,100, with 3,254 deployed on the front line against the Germans.<sup>40</sup>

### **Infantry and Artillery**

Similarly, by June 1940, the German and Allied armies had gained a relative parity in terms of the infantry. Including the Belgians and the Dutch, French and British manpower on the continent amounted to about four

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<sup>35</sup> Gunsburg, *Divided and Conquered*, 35-40.

<sup>36</sup> Gunsburg, *Divided and Conquered*, 35-40.

<sup>37</sup> Garraud, 'La politique française de réarmement de 1936 à 1940,' 92.

<sup>38</sup> Garraud, 'La politique française de réarmement de 1936 à 1940,' 98-101.

<sup>39</sup> Karl-Heinz Frieser, *The Blitzkrieg Legend: The 1940 Campaign in the West*, Reprint edition (Naval Institute Press, 2013), 57-60.

<sup>40</sup> Frieser, *The Blitzkrieg Legend*, 57-60.

million troops facing three million German troops. The defenders outnumbered the attackers.<sup>41</sup> On a qualitative level, this parity still held, albeit to a lesser extent. In 1940, French divisions were organized according to their competence, much like the German “*Welle*” system in its implications on operational readiness (but not its implications on call-up). France had about 23 regular “active” divisions (*divisions actives*), which were fully equipped with modern anti-tank and anti-aircraft guns. It also had 12 “Group A” divisions (*série A*), which were more well equipped, although not fully, and 18 “Group B” divisions (*série B*), which were the last on the priority list.<sup>42</sup> All in all, including the British and Belgians, France had qualitative parity, with 35-35 first-rate divisions on both sides (*Welle 1* and *divisions actives*) and 24-24 in second rate divisions (*Welle 2* and *Série A*).<sup>43</sup> Furthermore, the French “third-rate” divisions were stationed in areas perceived to confer significant advantages to the defender, including the bastions of the Maginot Line, the Alps, and most unfortunately for France, the forests of the Ardennes.<sup>44</sup> There, three of the worst *Série B* divisions were stationed, precisely at the main point of the German attack. Much ink has been spilled about the implications of believing that the Ardennes were impassable for tanks and, consequently, leaving their defense to third-rate garrison troops. More than any other decision, this probably cost France the war. The strategic error, however disastrous, does not reflect on the overall state of the French army, but rather its strategic choices in the deployment of the forces it possessed.

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<sup>41</sup> Frieser, *The Blitzkrieg Legend*, 57-60.

<sup>42</sup> Jacques Belle, *La défaite française, un désastre évitable (T.1): Le 16 mai 1940, il fallait rester en Belgique*, ECONOMICA edition (ECONOMICA, 2007), 170.

<sup>43</sup> Belle, *La défaite française, un désastre évitable*, 170.

<sup>44</sup> Belle, *La défaite française, un désastre évitable*, 170.

## The Air Force

From 1937 to 1938, the air force budget almost doubled from 3.866 billion francs to 6.718 billion francs.<sup>45</sup> Total defense spending increased from 13 to 17 billion, an increase of 30% in one year. The government nationalized and rationalized much of the aviation and armaments industries, increasing the production of planes. By September of 1939, French industry produced 320 planes a month, and the number of workers increased from about 35,000 in 1935 to 171,000 in January 1940.<sup>46</sup> By 1939, combined British and French plane production outproduced the Germans by 20%, with about 10,000 Allied planes being produced in total against about 8,000 German ones. By June 1940, the number of combat planes on the French and German sides were about equal, with around 3,500 fighters and bombers on each side.<sup>47</sup> From a purely numerical perspective, the French and German air forces were on equal ground.

## The Maginot Line: White Elephant or Force Multiplier?

The Maginot Line is one of the most controversial defensive lines ever constructed. Much has been written of the seeming ease by which the Germans were able to bypass the strong fortifications of the Maginot. The perception of its invincibility became an ironic symbol of hubris and the refusal of the French army to take the offensive, as well as its overreliance on fortifications. Critics decried how much money could have gone to more modern arms and tanks, and after the war it was described by its detractors as “a rat trap for 500,000 men” (*une ratière dans laquelle 500,000 hommes sont enfermés*).<sup>48</sup> Indeed, garrisoning and defending it did occupy a substantial portion of France’s armies, as well as an important part of the

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<sup>45</sup> Gunsburg, *Divided and Conquered*, 35-40.

<sup>46</sup> Gunsburg, *Divided and Conquered*, 75.

<sup>47</sup> Frieser, *The Blitzkrieg Legend*, 66.

<sup>48</sup> Maurice Rajsfus, *De la victoire à la débâcle juin 1919-juin 1940* (CHERCHE MIDI, 2000), 83.

military budget before 1925. Worse still, the Maginot Line had acquired such a status within the French military that an inordinate amount of military resources were devoted to its defense, even at the 11th hour.<sup>49</sup> For example, the heavy B-1 tanks of the 3rd Division Cuirassée (DCr) were taken from Sedan to relieve the siege on La Ferté, where the Germans had launched a diversionary attack on the Maginot in order to keep French attention away from the offensive in the Ardennes. This was despite the fact that just ten miles to the north, the German panzer spearheads were on the verge of breaking through.

The Maginot Line was a deeply misrepresented system, with its disadvantages and strengths both overexaggerated to different degrees. For all the discussion of the opportunity cost involved, France spent only about 5.3 billion francs on the construction of this fortification system, a sum that is roughly comparable to sums spent in much less relevant theaters, like the naval bases in North Africa and the naval buildup.<sup>50</sup> As such, it accounted for a very modest proportion of French military spending, especially after 1936 and the rearmament program of the Popular Front, which did much to remedy the shortcomings of the mobile arm of the French army. The fortification should also be placed in its historical context. For a French army that was reliant on mobilization and in which even the active divisions were mostly composed of conscripts (60% for the line and 74% for the officers), time was required to bring it into fighting condition.<sup>51</sup> The Maginot Line provided a good shield which defended the national territory against direct invasion, a screen behind which the army could mobilize. Additionally, French defense planners foresaw serious difficulties in any offensive operation from Alsace-Lorraine into the heart of Germany. Firstly, the terrain of the Rhine massif immediately across the Rhine and towards the Ruhr was

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<sup>49</sup> Frieser, *The Blitzkrieg Legend*, 300.

<sup>50</sup> Forczyk, *Case Red*, 50-52.

<sup>51</sup> Eugenia C Kiesling, *Arming Against Hitler: France and the Limits of Military Planning* (University Press of Kansas, 1996), 170.

not conducive to a swift advance, and any delay there would allow German forces to concentrate and defeat French forces on the frontier.<sup>52</sup> Additionally, after the construction of the Siegfried Line, the task of breaching the already difficult German frontier was increased.<sup>53</sup> It is easy to argue that France should have taken the offensive, but one should also remember that similar attempts of a headlong offensive into southern Germany by way of Lorraine had met with total disaster in 1870 and 1914. Hence, the Maginot Line and the strategy of defense in Alsace-Lorraine was not the miscalculation it was often portrayed as after the war.

However, the Maginot was neither the invulnerable fortification it was represented as, nor a viable way to economize French forces on the frontiers. In fact, the Maginot line was a highly heterogenous line with variable defensive value. Strong fortifications had only been built up in certain sectors of the line, with the rest remaining relatively unfortified.<sup>54</sup> For example, the Saar gap was only garrisoned by a line of concrete blockhouses and machine gun nests, far from the massive underground fortresses seen in other parts of the Maginot.<sup>55</sup> Many other sectors in the line were lacking in organic artillery, built in an improvised fashion, or barely covered by any prepared defenses at all.<sup>56</sup> It was only the propaganda of the pre-war French army that had portrayed the whole of the Maginot as an impregnable bastion.

The greater danger of the Maginot was how it drew a disproportionate number of French troops to its defense. In 1940, 36 French divisions were sitting on the Maginot against about 19 German divisions, meaning that almost half of the French army was deployed to a sector of the

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<sup>52</sup> Rocolle, *La guerre de 1940*, 67.

<sup>53</sup> Gunsburg, *Divided and Conquered*, 45.

<sup>54</sup> Philippe Garraud, 'La politique de fortification des frontières de 1925 à 1940: logiques, contraintes et usages de la « Ligne Maginot »', 14-16.

<sup>55</sup> Garaud, 'La politique de fortification des frontières de 1925 à 1940,' 14-16.

<sup>56</sup> Garaud, 'La politique de fortification des frontières de 1925 à 1940,' 14-16.

front which remained irrelevant while the main battle was being fought and lost in the north.<sup>57</sup> Ultimately, the Maginot was constructed for a good reason, and had several beneficial effects for the French army, especially by allowing it to mobilize safely and concentrate its mobile forces further north. However, the overattachment to the defense of the Maginot, exacerbated by the propaganda about its role as France's impregnable bastion, led to an overcommitment of scarce troops in a sector that had been made irrelevant by the line's existence. The irony of the Maginot is that by its presence, it shifted the main battlefield in the west to Belgium and the low countries. Yet the French army remained fixated on maintaining its inviolability, robbing themselves of the resources necessary for the main theater.

### **The Mechanized Divisions and the Armored Force: Failure of Organization?**

The previous section established that the French army held a numerical advantage in tanks over the Germany army. How then can one explain the stunning disaster of 1940, where German armored columns were able to push their way past the French army and encircle the allied armies in northern France? There are two key factors: the organization of the tanks and the geographical deployment of the armored divisions.

For one, most French tanks were not concentrated in tank divisions, but rather in battalions attached to army corps as reserve units. As such, the majority of the French tanks, especially the Hotchkiss H35 and H39, were scattered throughout the French army, primarily with the infantry.<sup>58</sup> The tanks gave the infantry corps greater firepower, but there was insufficient *concentration* of armored forces at the operational level. Against ten German Panzer divisions, French armor was concentrated in three light mechanized divisions (*Division Légère Mécanique*, or DLMs), and three armored divisions (*Division Cuirassée* or DCrs).<sup>59</sup> In these formations, the Germans

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<sup>57</sup> Frieser, *The Blitzkrieg Legend*, 300-301.

<sup>58</sup> Doughty, *The Seeds of Disaster*, 177.

had about 2,500 tanks against 1,000 French tanks.<sup>60</sup> To make matters worse for the French, the DLMs and the DCrs were different in their role. The DLMs, operated by the cavalry arm, were most equivalent to the Panzer divisions, designed to move as a unit, reconnoiter, and screen against enemy movements, as well as act as the mobile reaction force of the French army.<sup>61</sup> The DCrs, on the other hand, were operated by the infantry, and were restricted to certain operations, such as breaking through of enemy lines and operations on enemy flanks.<sup>62</sup> To fulfill this mission, they had heavier tanks and artillery, but were not meant to operate independently as maneuver units. They had a greater reliance on transport by rail and lacked their own independent reconnaissance elements to find and engage the enemy.<sup>63</sup> Their role was to break the enemy line, move in conjunction with the infantry, and make counterattacks where necessary.

As such, in terms of armored divisions, the Germans outnumbered and outmatched the French. Worse, the DCrs and the DLMs (to a lesser extent), suffered from serious shortages of key equipment such as radios and signal equipment, anti-aircraft guns, as well as inefficient refueling operations that seriously limited their space for independent maneuver.<sup>64</sup> In 1940, many of the planned counterattacks by the French DCrs did not succeed because the divisions were dispersed widely over several railheads and constantly running short of fuel.<sup>65</sup> Very few French tanks had radios at

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<sup>59</sup> Dominique Lormier, *Mai-juin 1940: les causes de la défaite* (Alisio Histoire, 2020), 87.

<sup>60</sup> Lormier, *Mai-juin 1940: les causes de la défaite*, 87.

<sup>61</sup> Doughty, *The Seeds of Disaster*, 171.

<sup>62</sup> Doughty, *The Seeds of Disaster*, 169.

<sup>63</sup> Kiesling, *Arming Against Hitler*, 164-166.

<sup>64</sup> Rocolle, *La guerre de 1940*, 310.

<sup>65</sup> Rocolle, *La guerre de 1940*, 310.

all, making it extremely difficult for commanders to coordinate operations with other tanks, and the design of French tanks was such that tank commanders were overworked with the tasks of commander and gunner, further reducing their capacity for tactical response.<sup>66</sup>

Compounding this inferiority in armored divisions was the deployment of these formations. Due to political and military considerations, the French High Command had resolved in 1940 to dash into Belgium in order to take up defensive positions on the Dyle River, Plan D.<sup>67</sup> In the winter of 1939 – 1940, Gamelin decided to devote 7th Army, the reserve army, which included the 1st DLM, to the “Breda variant,” which would put 7th Army in a position to advance to Breda and link up with the Netherlands.<sup>68</sup> This deprived the French army of a mobile reserve. The result was that in June of 1940, after Guderian’s armor had broken through at Sedan, there were no mobile forces available to stem the tide immediately, and while the DCrs were thrown into the fight in a desperate attempt to stem the tide, their attacks were too slow and uncoordinated to decisively break the Panzer bridgeheads.<sup>69</sup>

Why did this happen? The Dyle-Breda plan required the French army to cover more ground than the Germans with the best of their forces, promising a battle of encounter against a German army advancing a similar distance. But politically and militarily, it had several important advantages: Firstly, it would enhance Allied unity by supporting the Belgians and preventing a collapse of Belgium.<sup>70</sup> Secondly, it would screen the vital industrial regions of Lille and the northeast against attack, preventing

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<sup>66</sup> Lormier, *Mai-juin 1940: les causes de la défaite*, 199-205.

<sup>67</sup> Gunsburg, *Divided and Conquered*, 122-133.

<sup>68</sup> Gunsburg, *Divided and Conquered*, 122-133.

<sup>69</sup> André Beaufre, *1940. The Fall of France. Translated by Desmond Flower and with a Preface by Basil Liddell Hart* (Cassell, 1967), 196-197.

<sup>70</sup> Gunsberg, *Divided and Conquered*, 122-133.

destruction similar to 1914-1918.<sup>71</sup> Thirdly, it would concentrate French military forces on (allegedly) prepared positions, on a river, which would allow the French to consolidate strong defensive forces to meet the German offensive.<sup>72</sup> Lastly, it was thought that the Dutch and the Belgians would be able to delay the German army sufficiently to allow French forces to take up positions.<sup>73</sup> For the French army, the risk of overextension was matched by the consequences of inaction and the rewards of action.

Unfortunately, once war was declared, things went wrong immediately. Belgian and Dutch forces on the frontiers were quickly overwhelmed, with the key fort of Eben-Emael falling to German glider assault in a single day.<sup>74</sup> French forces arrived in Belgium to discover no fortifications had been built, and the bulk of the army, arriving on foot, struggled to catch up to the motorized formations.<sup>75</sup> Even so, French forces performed well against the Germans. In a series of tank battles at Hannut and Gembloux, the DLMs fought back German armored attacks, inflicting equivalent damage to what they suffered.<sup>76</sup> One wonders what might have been if they had been able to intervene at Sedan instead.

### **The Air Force**

Despite the numerical parity on paper, the French and allied air forces in 1940 suffered from an inferiority that was evident in the serious losses that they took and their inability to interdict German tank columns or prevent the

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<sup>71</sup> Gunsberg, *Divided and Conquered*, 122-133.

<sup>72</sup> Gunsberg, *Divided and Conquered*, 122-133.

<sup>73</sup> Gunsberg, *Divided and Conquered*, 122-133.

<sup>74</sup> Forczyk, *Case Red*, 160-163.

<sup>75</sup> Forczyk, *Case Red*, 169.

<sup>76</sup> Jeffrey A. Gunsburg, 'The Battle of the Belgian Plain, 12-14 May 1940: The First Great Tank Battle,' *The Journal of Military History* 56, no. 2 (1992): 240-242. <https://doi.org/10.2307/1985797>.

*Luftwaffe*'s relentless ground attacks. Why was this the case? It is noted that the French air force only put up about 900 planes to resist the initial German blow of around 2,500 planes.<sup>77</sup> Allied contributions by the British (400 planes) and the Belgians (120 planes) were not sufficient to compensate.<sup>78</sup> The *Luftwaffe* made an all-out effort in the very first battle of the campaign in the west, staking it all on the decisive moment. French airpower was held in reserve in preparation for a long war, and as a result, although both sides took heavy casualties, the *Luftwaffe* had managed, just as in 1918, to achieve local superiority on the front line for a decisive battlefield offensive.<sup>79</sup> Once again, this was attributable to the strategic miscalculation of French high command and their inability to rapidly respond once the situation changed.

In addition to the French failure to commit the bulk of their air force immediately, Britain held back a substantial portion of the Royal Air Force for home defense, when the threat from the German *Luftwaffe* over France was much starker. Out of forty-two fighter squadrons, only fourteen were deployed to France, and none of the newest Spitfire models.<sup>80</sup> Furthermore, despite the numerical parity of the French aircraft on paper, in reality most of the French aircraft were the outdated Morane-Saulnier 406, inferior to the Bf 109 that the Germans were operating in both speed and armament.<sup>81</sup> The Dewoitine D520, the only modern French fighter which could stand up to the German equivalents, was present in insufficient numbers to fight on even ground with the *Luftwaffe*.<sup>82</sup> This made the absence of the RAF, with its modern fighters like the Spitfire and the Hurricane, all the more serious for

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<sup>77</sup> Frieser, *The Blitzkrieg Legend*, 66-70.

<sup>78</sup> Frieser, *The Blitzkrieg Legend*, 66-70.

<sup>79</sup> Frieser, *The Blitzkrieg Legend*, 66-70.

<sup>80</sup> Frieser, *The Blitzkrieg Legend*, 66-70.

<sup>81</sup> Lormier, *Mai-juin 1940: les causes de la défaite*, 85-86.

<sup>82</sup> Lormier, *Mai-juin 1940: les causes de la défaite*, 85-86.

allied air power. Would a greater contribution by the RAF to the battle of France have turned the tide? It is hard to predict. But as allies, it was arguable that the British had the obligation to try. Despite this, at various points in the campaign, allied forces had been able to secure limited air superiority over the key sector of the Ardennes. But for lack of more planes, they might have been able to stop the Panzers in their tracks.<sup>83</sup>

### **Methodical Battle: French High Command, Military Doctrine, and Coordination**

Despite the chaos of interwar French politics, upon closer inspection, we discover a surprising constancy to the personnel at the top of the French military. From 1936-1940, Edouard Daladier served continuously as the Minister of War.<sup>84</sup> The most important positions in the army's hierarchy were dominated by only five officers in the twenty years between 1920 and 1940. The key figures of Maxime Weygand and Maurice Gamelin took up the key positions of vice president of the Superior Council of War and the Chief of the General Staff for basically all of the 1930s.<sup>85</sup> However, despite this lack of turnover, France suffered from a lack of coordination at the highest levels. There was no real joint command of the three services, no minister of national defense until 1936, and no leader specifically charged with the coordination of military activities until the eve of the war. There was, furthermore, no general staff above the three services, and there was no unity of command or joint staff work between these services.

As a result of this disjointed leadership, the military hierarchy was fragmented, and no one man had command over the whole of the military.<sup>86</sup> To a large extent, this was the result of the Third Republic's fear of over-empowering the military, not unjustified given the history of military coups

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<sup>83</sup> Gunsburg, *Divided and Conquered*, 201.

<sup>84</sup> Doughty, *The Seeds of Disaster*, 113-135.

<sup>85</sup> Doughty, *The Seeds of Disaster*, 113-135.

<sup>86</sup> Doughty, *The Seeds of Disaster*, 113-135.

in France at the time. (Napoleon III and General Boulanger coming to mind most prominently).<sup>87</sup> There was also no centralized hierarchical system for the modernization of defense equipment or the development of new technologies.<sup>88</sup> In 1940, this fragmentation of the high command extended even to Gamelin's field command, which was located far away from the front, without radio or telegraph communications, relying on messenger and telephone. Neither he, nor his subordinate, General Alphonse George, who was responsible for the critical northeast front, possessed a complete staff, forcing officers to shuttle between both headquarters daily.<sup>89</sup> All this led to the inability to adapt, both in peace and war, to rapid changes when they occurred.

Aside from the inefficiencies of the general staff's organization, we must turn our attention to doctrine. As previously stated, French doctrine relied on two concepts: firepower and "methodical battle".

The doctrine of methodical battle (*bataille méthodique*) is best described in the words of General André Beaufre, who served in the general staff in the interwar years and was a pupil at the *École de Guerre*. This doctrine, he said: "... had reduced everything to a mathematical sum worked out with a ready reckoner—troops, ammunition, stores, casualties and time equated with the number of kilometers involved."<sup>90</sup> Indeed, the 1936 "Instructions for the Use of Large Units" (*les instructions pour l'emploi des grandes unités*) article 204 states: "The command fixes the rhythm, the conditions for the progression towards different objectives: the average speed of the attack, the length of halts on the objectives, the agreements for the resumption of movement, the authorities responsible for so ordering, the

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<sup>87</sup> Doughty, *The Seeds of Disaster*, 113-135. This was also one of the main reasons why the professional army was dismissed as an operating concept for the interwar French army.

<sup>88</sup> Doughty, *The Seeds of Disaster*, 113-135.

<sup>89</sup> Doughty, *The Seeds of Disaster*, 113-135.

<sup>90</sup> Beaufre, 1940. *The Fall of France*, 37-39.

movement of the artillery, etc., all the dispositions are to be decided minutely.”<sup>91</sup>

One clearly begins to see that the whole doctrine was based on the idea of granular control of men, of the pace of advance, and probably most importantly of all, control of casualties sustained. For this was the key motivation behind the concept of methodical battle, created after the hard losses of the Great War.<sup>92</sup> There was to be an end to reckless offensives which outpaced the artillery and left themselves vulnerable. Manpower was to be carefully and efficiently used, supported by large amounts of firepower. Indeed, the defining characteristics of methodical battle was the primacy of firepower over maneuver, and of centralized control over decentralized mobility.

Firepower and hence the artillery was the cornerstone of methodical battle. Firepower, it was thought, would be the determinant of any future conflict. This power would be used to overwhelm and inflict great losses on any enemy formation.<sup>93</sup> In this regard, the experience of the Great War and the immense artillery barrages that destroyed the German fortifications on the Hindenburg Line must have been a powerful motivator for the continued centrality of firepower to French doctrine. In addition, the lethality of modern firepower was perceived to confer great advantages to any defender. In 1931, Paul Valéry, the director of the *Academie Francaise* summed up this conception of firepower thusly: “It is therefore an understatement to say that fire kills. Modern fire mows: it suppresses; it prohibits movement and life in any area it commands. Four resolute men hold a thousand in check, and strike dead or alive all those who show themselves ... This is how [firepower] gets the better of movement, it buries combat, embarrasses maneuver, paralyzing, in a way, all strategy.”<sup>94</sup> Due to the prominence of artillery in the First World

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<sup>91</sup> Philippe Garraud, ‘Le rôle de la « doctrine défensive » dans la défaite de 1940 : une explication trop simple et partielle,’ 101-102.

<sup>92</sup> Doughty, *The Seeds of Disaster*, 90.

<sup>93</sup> Doughty, *The Seeds of Disaster*, 91-111.

War, the offense-defense balance was perceived to tilt firmly in advantage of the defender.

Control of the French artillery was retained at the divisional, corps, and army level. The emphasis became the controlled and centralized concentration of firepower under a central direction, rather than, in the German case, the decentralization and emphasis on mobility given to the artillery.<sup>95</sup> The majority of the heavy artillery was organized in a way external to the unit, to be used on the strategic level. In 1926, the Regulation on the Maneuver of the Artillery emphasized: “The systematic allocation of all artillery to subordinate elements must be avoided; it constitutes an abdication of command.”<sup>96</sup> The decision of when and how to deploy firepower was in the hands of higher formations, rather than the units who needed support immediately.

This approach towards the divisions extended towards the mobile units, including the motorized divisions and the DCrs. The new divisions, as previously mentioned, were designed in the traditional way, with the motorized and armored elements serving to increase the mobility *but not the pace of action* of the respective units. The motorized divisions were not independently fully mobile, but rather relied on trucks to bring them to the destination, where they would fight as conventional infantry units.<sup>97</sup> Their quick movement was always reliant on the provision of trucks in the right place and the right time, using trucks from the general reserve.<sup>98</sup> The DCrs were further envisioned to serve together with the infantry, with the infantry setting the pace of the offensive and together with the artillery, being part of a combined arms movement that was at its core still fundamentally designed

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<sup>94</sup> Doughty, *The Seeds of Disaster*, 91-111.

<sup>95</sup> Doughty, *The Seeds of Disaster*, 91-111.

<sup>96</sup> Doughty, *The Seeds of Disaster*, 91-111.

<sup>97</sup> Belle, *La défaite française, un désastre évitable* 172-173.

<sup>98</sup> Belle, *La défaite française, un désastre évitable* 172-173.

around *planned* movements of breakthrough, defense, and counterattack. Thus, the “methodical battle” constrained the potential of the armored divisions, preventing them from achieving their full potential. Core to this was the perception that armored units, unsupported by infantry and artillery, would not be able to last on their own, and be cut off. In 1935, General Eugène Debeney, the former Chief of the General Staff, said the following regarding the potential for an armored offensive with independent armored units: “We will have a brilliant communiqué at the outset, and a few days later, a useless S.O.S.”<sup>99</sup>

### **Conclusions: The Limitations of Materiel and Planning**

The French army of the interwar period was not blind to the realities of modern warfare. In fact, it clearly saw France’s strategic vulnerabilities and designed a strategy that had three main objectives: The modernization of the army, preparation for total war, and the preservation of French territory and manpower. The army was supported by a government that was able to provide it with the funding and materiel it needed, and it was composed of troops that were willing to fight hard when well-equipped and supported. In the years leading up to the war, France made huge strides in modernization, re-equipping its forces and envisioning the future of warfare with the new tools of airpower and armor. It also realized that war with Germany would require the total mobilization of France’s population and industry and prepared itself accordingly. By any account, given the unprecedented nature of the war the French army was entering, it performed better than most other countries in its position.

The French army was defeated, not due to the backwardness of its army nor the inability of its men to fight. In the brief campaign in Belgium, and subsequently in Case Red, French soldiers fought hard against German forces, even when severely outnumbered and outgunned. It fell due to the strategic miscalculations of a general staff who mismanaged a battle of encounter and took risks that were, retrospectively, miscalculated. The high command bet everything on a plan that relied on allied cooperation, without

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<sup>99</sup> Kiesling, *Arming Against Hitler*, 164.

ensuring that the relevant allies were committed and cooperating. Flexibility and speed, key elements in any military operation, were severely lacking, and the French army was left scrambling in a futile attempt to rescue the strategic situation after its opening miscalculations. 1940 started the same way as 1914, but ended in ultimate disaster due to the high command's inability to deploy and concentrate the reserves in a battle of maneuver as Maréchal Joffre had managed at the "Miracle on the Marne." At the heart of this failure was a doctrine that was not well adapted to the rapidly changing conditions of war, which resulted in units that were not designed to make the best use of the equipment they were given.

In recent years, there has been a new emphasis on the industrial nature of war. Much ink has been spilt on the buildup of the Chinese navy, of the Russian mobilization and production of artillery shells, and on the US's own weaknesses with its defense-industrial base. Production of material and the acquisition of new platforms is indeed important. But of greater importance is what the military do with the weapons they have been given. Will new weapons be used in old ways, reducing their effectiveness? Or will they be positioned in formations that best ensure their success? Bureaucratic inertia against the redistribution of power and resources argues against the latter. History has shown that the deployment of new capabilities and the creation of relevant doctrine is what converts material to victory.

Another legacy of 1940 is how militaries manage the aftermath of defeat. After the armistice, just as the German army had done in 1919, the French army pinned the blame on the government, on the population, and on "traitors" who had stabbed it in the back.<sup>100</sup> In 1942, Pétain held a trial at Riom that charged the Popular Front government and the succeeding government of Daladier for treason, for dividing the country and not equipping the army well enough to resist Germany.<sup>101</sup> At the trial, Gamelin, who had been in command of French troops in 1940, loaded blame onto the

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<sup>100</sup> Nicole Jordan, "Strategy and Scapegoatism: Reflections on the French National Catastrophe, 1940," *Historical Reflections / Réflexions Historiques* 22, no. 1 (1996): 26-27.

<sup>101</sup> Jordan, "Strategy and Scapegoatism," 27-28.

Popular Front for their perceived failures.<sup>102</sup> In these footsteps, the Vichy regime emerged, just as Hitler's had before it.<sup>103</sup> This avoidance of responsibility by the military, particularly its high command, is human nature. But the effect on democracy and governance can be crippling. One must think of the army's responsibility as one of fighting and winning wars—giving credit when things go well. But similarly, when defeat occurs, it is the role of a patriotic and democratic military to admit when they were responsible. Maréchal Joffre, who saved France in 1914, said it best: "*I do not know, if it was I who won the battle of the Marne. But I know this well: if it had been lost, it would have been lost by me.*"<sup>104</sup>

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<sup>102</sup> Jordan, "Strategy and Scapegoatism," 27-28.

<sup>103</sup> Jordan, "Strategy and Scapegoatism," 30.

<sup>104</sup> Marc Bloch, *Strange Defeat*, First Edition (W. W. Norton & Company, 1999), 25.