Contingency Plans for War in Western Europe, 1920-1940

Mark Jacobsen, Robert Levine,
William Schwabe

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The Rand Strategy Assessment Center

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PREFACE

Although the German invasion of the Low Countries and northern France in 1940 has been extensively studied and is familiar in general outline to many defense analysts, surprisingly little has been written about the national-level planning that preceded, and in many senses shaped, the course of the invasion. This report attempts to fill that gap.

This study was undertaken to support the Rand Strategy Assessment Center (RSAC) in its attempt to determine the effects of war planning on the behavior of countries in crises and wars. The findings may prove useful to analysts working on aids to contingency planning and on a variety of dimensions of General Purpose Force employment. Comments and inquiries are welcomed and may be addressed to the authors or to Dr. Paul K. Davis, Director of the Center.

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SUMMARY

PURPOSES OF THE STUDY

A study of war planning in the 1930s by France, Britain, Belgium, and Germany sheds considerable light on the way in which political, financial, and manpower constraints guide the military planning process. Threat assessment played a comparatively minor part in planning. Instead, available resources were the single most important determinant of plans. The situation of a totalitarian nation bent on changing the European status quo opposed by a coalition of democracies offers obvious analogies with present-day NATO. At the same time, no historical analogy is perfect, and simple comparisons with 1939–1940 convey some imperfect similarities.

THE PLANNING BACKGROUND TO MAY 1940

Concepts of War

The generals who planned for war in the 1930s had in their lifetime seen a revolution in weapons and tactics during the First World War, and this revolution continued in the uneasy years of peace. Their position of having to apprehend the lessons of war as well as those of continuous technological change had few previous parallels but many with our own times. World War I had demonstrated the power of the industrialized nation in arms. In violence, uncontrollability, and social consequences to victor and loser alike, the industrial nation mobilized for war was the ultimate weapon of the time. Planners sought to harness this weapon, either to win a protracted war of attrition through economic strength or to avoid attrition by winning quickly.

Attaque Brusquée. A "bolt from the blue," an attaque brusquée was an abrupt attack in peacetime not by a nation's mobilized army but by its standing actives, whether air or ground forces. Their aim was to disable the enemy's command center before mobilization could take place. From the late 1920s, it was feared that the rebuilt Reichsheer of the Weimar Republic could carry out such a coup, against France or Belgium. This threat led the potential victims to provide their own permanent peacetime covering forces, the couverture, even as they also prepared for a full war. The British, after Hitler's coming to power in 1933, feared an aerial attaque brusquée, a massive

air strike against London to paralyze Britain. British air policy aimed to deter such an attack by threatening a counterstrike.

War of Attrition. French and Belgian defense policy aimed to protect their countries' industrial and population centers. They and the British hoped to repulse an attaque brusquée and to achieve a war of position, the kind of war they could reasonably hope to win. It was expected that another war would proceed through three fairly well defined stages: an initial attack and its defeat; a prolonged period of stalemate behind which the democracies built up their resources; and, then, a carefully prepared offensive that would topple the overstretched Germans, whose economy could not sustain military spending at the initial rate. This was how the western Allies envisaged campaign termination.

Blitzkrieg. Hitler knew that defeat in a war of attrition could spell ruin by revolution from within, and he aimed to win wars either bloodlessly through faits accomplis or quickly through the blitzkrieg. German planners in the Nazi era acknowledged the same three-stage war scenario as their western counterparts but aimed to avoid it not by preparing a huge and generously armed body of troops but by concentrating the best weapons in a restricted number of formations, these to spearhead any attack. At the same time, a larger number of cadre divisions remained, whose armament could be brought up to strength and who could be employed to overcome strongpoints bypassed by the mechanized advance, and to secure flanks and lines of communication. This permitted Germany, whose economy was perilously overstretched in the 1930s, to use its armaments sparingly but still achieve great results. Thus was born the blitzkrieg, an ingenious use of limited resources to win decisively at the outset and avoid the long war that Germany could only lose.

Blitzkrieg, unlike the attaque brusquée, employed an ultimate weapon—the mobilized German army spearheaded by armor and ground support aircraft. The blitzkrieg was designed to avoid a war of attrition, and so its methods aimed to cancel the defender's distinct advantages in modern warfare. Attacking on one or two critical axes, a blitzkrieg sought to destroy the enemy army by maneuvering with a degree of speed and audacity that would paralyze the enemy's command elements and render all counterattacks futile. The blitzkrieg allowed the attacker to determine the battle's pace, location, and participants. Its fundamental political assumption was that the loss of a field army would terminate any opponent's will to fight and perhaps his allies', too.

France

French planning was politically defensive throughout the interwar years in that it aimed to defend the Versailles settlement. Versailles imposed upon Germany a militarily inferior position toward France and her East European allies, Czechoslovakia and Poland.

French planning became strategically defensive with the advent of a one-year service in 1927–1928. The new military law reduced the army in size, making its long-service cadres only equal to the German Reichswehr; this coincided with overseas calls on the French army and the impending evacuation of the Rhineland by Allied units to compel France to adopt the first of a series of defensive plans and to begin construction of the Maginot Line.

In itself, the Maginot Line may have *symbolized* French concern with defense, but it only reflected the nation's unwillingness to maintain a large peacetime standing army to preserve a political settlement that seemed over-harsh. France was too isolated politically to develop aggressive plans to uphold the European status quo. To avoid diplomatic isolation, which would have led to her defeat in a war of attrition, France adjusted her plans.

The financial crunch of the depression curtailed military spending still further. French plans, thus, became defensive and abandoned all efforts to enforce the East European settlement or even to stage a preemptive attack on Germany. For practical purposes, available plans enabled France either to mobilize its entire army relatively quickly or to do nothing whatsoever. Excessively high estimates of German armaments, both before and after Hitler's accession to power in 1933, exacerbated the effects of one-year service. Supposed overwhelming German strength ruled out any limited reactions, indeed anything less than a war of total national effort.

Great Britain

Britain's army after the early 1920s oriented itself overwhelmingly to garrisoning an empire that now embraced League of Nations' mandates while it faced intensified nationalism challenges nearly everywhere. Neither the units nor the money nor the political will were at hand to prepare an army to defend even the West European portion of the Versailles system. Instead of fighting another Somme on behalf of what was seen as morally indefensible French nationalism, British governments came increasingly to fear an all-out aerial attaque brusquée on London. There was real confusion over the effectiveness of air power. Although the British doubted their own air capability,

they feared German air attacks. Extrapolations from fragmentary evidence on World War I bombing indicating that each ton of bombs dropped caused 50 casualties were never subjected to critical scrutiny.

Not until 1937–1938 did radar and fast monoplane fighters make aerial defense possible. Before then, it was believed that only fighters continuously aloft could defend, and since six squadrons were needed to maintain one in the air, defense against the bomber was hopeless. Accordingly, air rearmament concentrated on strategic bombers, but the plans envisaged were pure guesswork. Britain's bombers existed not to fight but to deter. This notion held as long as did its assumption: that a future air war would be decided within 30 days. This meant that if bombers could not achieve rapid effects, they were useless.

When actual planning for strategic bombing began in 1938, it was soon discovered that no realistic projections were possible. Bombers were nearly defenseless on their own and incapable even of accurate daytime bombing, much less night bombing.

Once deterrence failed, Britain had little war-fighting capability, as estimates during the 1938 Sudetenland crisis revealed. The aircraft available in the late 1930s could not produce the needed rapidity for a major effect, and they reinforced a growing tendency to think in terms of a war of attrition, where strategic bombing could gradually wear down key industries and transportation facilities. The British army in Flanders in 1940 was smaller than either the Dutch or Belgian armies and hardly better endowed with armor. Britain's strategic-bombing-oriented RAF could not be employed for fear of retaliation on a France badly lacking in air defenses.

Further, the Allies in fighting a war of attrition needed to maintain the moral high ground to be able to employ neutral resources. Considerations of world opinion prevented their using a powerful strategic weapon into which much had been invested.

Belgium

As in France, the general public was unwilling to maintain a large standing army during peacetime, so, to economize on the numbers of soldiers necessary, fortifications were resorted to. The defensive plans worked out with the French (1920–1936) made Belgium part of a French continuous front but at the cost of committing the Belgian army to defend long and exposed positions close to the German and Dutch frontiers through which a German attack might come. This was a school of thought termed "integral defense."

During the late 1930s, the Belgian army gradually moved toward defensive plans that entailed, at considerable domestic political risk, abandoning two-thirds of the country to a German invader to save the army to fight on a defensible position that covered major industrial-population centers and saved the army from encirclement at the outset of a campaign. This current of thought, known as "defense-in-depth," went hand-in-hand with the neutral foreign policy pursued after 1936. Both were to be "exclusively and entirely Belgian." So factious, however, were its domestic politics that only neutrality achieved a consensus in favor of rearmament.

Germany

German military planning, insofar as it envisaged active measures, drew its sustenance from Hitler, not the German professional military, who acted as a force for caution. With the exception of a few convinced Nazis, most important military men were conservative, politically and professionally, and drew similar conclusions from World War I as their French counterparts.

Hitler's wishes guided a sequence of bloodless attaques brusquées from 1936 to 1939 that removed the possibility of having to wage war on two fronts. It was Hitler who judged that the numerically superior French would do nothing. Political warfare—empty threats, overstatements of strength, and propaganda—was as much a part of the German arsenal as the panzers.

Hitler's practice was to initiate the planning process only shortly before the plans were to be implemented, thus minimizing the more orthodox general staff's influence. As a result, serious planning for a war against France did not begin until September 1939, when the required political conditions were met, through the nonaggression pact with the Soviet Union and then through crushing Poland.

Initial German plans responded to Hitler's fears of an Allied advance through Belgium into the Ruhr. Accordingly, they aimed to smash the Belgian army and then to defeat the advancing Anglo-French armies. As it became clear that the Belgians were genuinely neutral and that the Allies planned no preemptive moves, the focus of German planning shifted.

Hitler now aimed to win a politically decisive result against either England or France, which would destroy their will to continue. These plans envisaged a push through the Low Countries via the Aachen Gap to seize the landing grounds from which an air offensive against Britain could be pursued. Subsequent plans had as their object to defeat the Allied armies in northeastern France. The subsequent Manstein

Plan, however, aimed to defeat France (although not necessarily immediately to force her capitulation) and so relocated the breakthrough in the Ardennes. Britain, it was reasoned, would drop out of the war once her continental Ally's army was smashed.

Allied Crisis Plan Modification, September 1939–April 1940

The fundamental aim of French crisis planning was to move the battle as far as possible from France as was consistent with a safe advance to prepared positions. French and British planners eventually opted for "Plan D," an advance to a position prepared by the Belgians linking Antwerp with Namur, the "K-W Line." They expected that the Belgians would stand on the line of the Albert Canal long enough for this movement to take place, for troops would have to travel only at night to minimize the hazards of air interdiction.

The Breda Variant. Fears that Hitler might tackle the Netherlands without violating Belgium forced the Allies to consider how to respond, for German control of the Netherlands would make defending Belgium far more difficult and would provide landing grounds for air attacks on Britain. To meet this contingency, the French prepared a plan, the "Breda Variant of Plan D." A mobile French army, the 7th, would advance on the extreme left of the Belgians and form a link between the retreating Dutch and Belgian army, thereby forming a continuous front screening the Allied armies' advance but also adding some eight Dutch and 20 Belgian divisions to the Allied order of battle. This was no small consideration when the British Expeditionary Force (BEF) had only five divisions. At the same time, the presence of these units on the right flank of the invading Germans would at least slow their advance but perhaps even offer the opportunity for a decisive counterattack on their extended lines of communication.

The Role of the Counterattack. The French seemed to be aiming here for a decisive counterstroke against an enemy offensive that had broken through their forward lines, essentially what Foch had brought off against Ludendorff's spring 1918 offensive. Commentators on 1940 often speak of the French army's preoccupation with 1914–1918, meaning a continuous front and a war of attrition. To a limited extent, this is true, but the campaign of 1918 was the one that most occupied planners seeking historical campaign analogies with modern warfare. German planners attributed Ludendorff's failure to his having dispersed his efforts, and their use of armor on limited areas of advance aimed to avert a repetition.

French defensive plans organized armor to deal with multiple breakthroughs, for it was in such circumstances, when the attacker was at

the limit of his communications and had no defenses prepared, that a counterattack had the best chance. The French did not mindlessly scatter their tanks along their front, as is often alleged. They placed some at the divisional level, so that local commanders could repulse any sector attacks involving tanks. They also concentrated their best armor at the army group level, creating armored reserve divisions whose heavy, well protected machines could defeat any panzer blitz such as had smashed the Polish army.

Strategic Misconception and Deception. French planning assumed that the Germans would behave according to French expectations and advance in force through the Aachen Gap. The very high quality of intelligence originating from among Hitler's opponents in the German military gave the French high command a confidence that German plans were transparent. If anything, the repeated pattern of apparently imminent attacks in the west during the winter 1939–1940 created a wall of "noise" that allowed the thrust through the Ardennes to achieve strategic surprise. The German plan, by also invading the Netherlands and attacking through the Aachen Gap, appeared to confirm the French in their wisdom in rushing units into Flanders and the Netherlands. This unintended strategic deception helped set the Allies up for the winning German stroke through the Ardennes.

CONCLUSIONS AND LESSONS

The Political Parallels

The Allies' situation in 1940 resembles NATO in being politically defensive, aiming to preserve a status quo. The Soviet Union has not disguised the fact that ultimately it expects to triumph. In their claim to having a universally valid social system, however, the Russians have not laid down any sort of timetable, whereas Hitler's goals were very much dictated by his own consciousness of mortality and by the personal, charismatic nature of his rule. The Soviet Communist apparatus is under no such compulsion, but neither are its aspirations limited to any particular nationality or "race," still less to the Eurasian mainland.

Thus, the parallel is imperfect but in such a way as to suggest that the durability and tenacity of the Soviet Union makes its military threat likewise more sustained and enduring.

It does not follow necessarily that nations politically defensive should adopt a defensive national strategy, as France, Belgium, and Britain did in the prewar and precampaign periods. That these nations did was due to economic and demographic weaknesses that exacerbated

a failure of political will to uphold the Versailles Treaty's structure that restrained Germany after 1919. Here, there are uncomfortable parallels, for as the Treaty of Versailles had lost popular confidence and moral legitimacy in the eyes of society's opinion-formers, so NATO today might readily come to be seen as unnecessary, as burdensome, and as much a threat to peace as the alliances and military arrangements that maintained the European status quo in the 1930s. Such a failure of popular will does not specify any particular plan, of course, but it does cumulatively deprive a nation's armies of the manpower and resources necessary if its plans are to be anything but strategically defensive.

The Strategic Defensive

The Maginot Line stemmed from France's unwillingness after 1928 to hold conscripts for more than a year, and the resort to concrete and steel aimed to save lives for a war of attrition while securing the nation's territory against an attaque brusquée. One might fairly ask whether NATO's preference for sophisticated hardware, while its members draw back from the draft, is not a variation of a Maginot mentality only without the Maginot Line. The elaborate logistics arrangements required by modern, very complex weapons in effect oblige planners to think in terms of a fairly stable continuous front, which could be maintained by an Atlantic airlift or shipping.

Much Allied thinking on the next war in the late 1930s made two comforting assumptions:

1. That the German economy could not sustain both guns and butter and so could not be ready before 1942 and even then might collapse from within.
2. That the Soviet Union and Germany would remain enemies.

Writings about the defense of Western Europe today often tacitly make analogously complacent assumptions:

1. That the Soviet economy cannot bear up under its military burden and must eventually satisfy its citizens' unmet demands for consumer goods of all description.
2. That the Soviet Union and China are implacable enemies.

The Blitzkrieg Today

Writers such as P. H. Vigor, however, suggest that, whatever the demand for washer-driers in Minsk, the outcome of economic weakness may, as with Hitler's military strategy, be an all-out emphasis on winning decisively and quickly with an updated blitzkrieg. In some respects, the Russian notion of blitzkrieg resembles a combination of an attaque brusquée and a blitzkrieg by the massive mobilized army possible in a closed totalitarian society. Russian use of cadre formations and shadow divisions would facilitate such rapid expansion.

The essence of the blitzkrieg is penetrating the opponent's decision-making and reaction loop. The most effective method of doing so is to employ whatever most upsets his pattern of expectations. For example, chemical munitions or nuclear detonations that destroyed NATO's command-and-control facilities might have an effect similar to dive-bombers and tank concentrations on 1940's soldiers. NATO employs a sophisticated all-arms, combined-arms doctrine, which could become paralyzed into inaction in the event of early destruction of its air forces. Arguably, an exo-atmospheric nuclear burst might shatter its communications.

Conversely, however, nuclear weapons add an element of uncertainty grave enough potentially to rule out their use or to make a Russian conquest of Western Europe meaningless. The Russians' buildup of theater nuclear weaponry might, like Hitler's Siegfried Line and displays of armaments, also function as strategic deception, winning political victories, while paralyzing reactions to moves elsewhere, such as into the Persian Gulf. Vital as the Persian Gulf is to NATO security, NATO lacks a ready capability to defend the region just as its European members may lack the political will to do so.

The relations between France, Belgium, the Netherlands, and Britain in the period under study were very poor at times; misleading military information was exchanged, and military doctrine meshed badly. There was little central coordination of plans. Even between France and Britain, staff talks did not begin until the spring of 1939.

NATO is not likely to repeat this exactly. It maintains joint planners and a unified command. Even so, different armed forces may turn out to have doctrines or equipment incompatible with their avowed missions.

The position of such vital contemporary neutrals as Austria, Finland, and Sweden is not far different from the Low Countries of the 1930s, and in a period of acute tension or limited war, the same problems as those of 1939–1940 can readily be imagined.

Finally, there is the question of feints, attacks, or threats beyond Europe designed to weaken its defenses. In the historical period under study, the most that can be said is that the French and British Empires did not prove to be sources of strength. Because the Nazis' aims were European and those of their ally Mussolini were Mediterranean, the scope of feints was limited, but Italy's intervention in the Spanish Civil War (1936–1939) and invasion of Ethiopia (1935–1936) affected France and Britain similarly to planned feints even if they were not explicitly timed to divert attention from European aggression.

As the Soviet Union can present itself as embodying universal aspirations, there is scarcely any area in which it might not concoct a movement. For this reason, feints are potentially more likely and more likely to succeed, given America's stance as a global power.

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I. INTRODUCTION

OUR PERSPECTIVE AND APPROACH

The periods following both World Wars I and II have been characterized by planning for the next possible war in Europe. Following both World Wars political and military planners sought diligently to avoid the mistakes and suffering of the past. Today we know that, despite the best efforts of capable post-WW I planners in France, Britain, and elsewhere, many of their plans partially or totally failed. The post-WW I security arrangements, including the war plans, kept the peace in Europe for twenty years. The post-WW II security arrangements have kept the peace twice that long. We would like to think we are more learned or capable than the post-WW I planners, but we know it may just be that we have been luckier than they. In our own way, we may be making the same mistakes.

This is a study of the war plans of four countries—France, Great Britain, Belgium, and Germany—for the contingency that came to be the Battle of France. We describe how the plans were developed over the twenty-year period between wars and how, in 1939, the Allied countries adapted the plans they had crafted in peacetime to the reality of imminent war.

Our interest is in presenting historical information that may illuminate present-day problems of NATO planning and possible future problems of adapting plans made in peacetime to use in wartime. Our perspective differs from those of many historians or polemicists. Unlike some purely academic historians, we care more about the present than the past. We are not content to limit ourselves to consideration of pure history; we will take note of apparent similarities and differences between past and present. Unlike polemicists, we select our historical facts more to illuminate the problems than to support particular, supposed solutions or conclusions. We know in advance that there are more than enough historical facts to support a host of mutually inconsistent conclusions. Our purpose is less to narrow the range of conclusions than to show some of the historical basis for different points of view.

Why this perspective? This study was undertaken as part of the research program of the Rand Strategy Assessment Center (RSAC). Our approach is grounded largely in the experience of our clients, colleagues, and others in studying defense issues using what can be called closed-form and open-form methods of analysis. By closed-form

analysis we mean consistent reasoning, often using mathematical models or computer simulations, aimed toward a rational, consistent solution. By open-form analysis we mean multi-actor processes, often encountered in organizations and in war games, aimed toward acceptable solutions that may or may not be highly consistent. This experience leads us to the view that closed-form analysis is often necessary but not sufficient. Ultimately, most decisions are made by consent among a group of participants, by an open-form process. The value of closed-form analysis is in reducing the number of legitimate, competing views that must be accommodated by an open-form process and by clarifying the bases for the competing views.

Although our readers need not be concerned with the overall objectives of the RSAC in undertaking this research, some readers may be interested in knowing how we may find this work useful. We are developing a capability to conduct automated and semi-automated war games supporting a wide range of defense-related issues. In the automated mode of operation the war games' opponents and their allies are played by sophisticated computer programs. Some of these programs are so-called rule-based artificial intelligence "scripts" that resemble war plans. We call these programs "analytic war plans." The library of alternative analytic war plan programs represents a range of plausible, strategically interesting U.S. and Soviet war plans. In war games, as in actual warfare, it is often necessary to adapt one's plans to changing situations. One way to do this in war games is by the so-called semi-automated mode of operations. In this mode we begin with the computer-programmed representations of war plans and allow teams of human players to adapt the plans as the game's scenario is played out. Alternatively, the computer programs can be made more adaptive. Either way, the history of pre-WW II planning and the adaption of war plans to the events of 1939 may prove illuminating—to players in the war games, to writers of adaptive analytic war plan computer programs, and to the wider community of defense analysts and planners.

THE STRATEGIES BEHIND THE PLANS: ATTAQUE BRUSQUÉE, BLITZKRIEG, AND WAR OF ATTRITION

At the heart of military planning between the wars lay the problem of what Michael Howard has termed the ultimate weapon of the pre-nuclear era—the industrialized nation in arms. The fully mobilized manpower resources of France, Britain, and Germany, backed by each country's industrial base similarly mobilized for total war, was an

awesome weapon capable of devastating an opposing nation. For civilian and military strategists of this period, the central problem was how to employ this power. For France, Britain, and Belgium the problem was how best to restrain Germany. After WW I Germany's economy and population base remained superior to those of France, Britain, and Belgium combined. These three countries sought to offset Germany's advantage by means of the Treaty of Versailles, the French alliance system, and finally French, Belgian, and British armed forces. On the other side, Germany's goal was to translate her economic and demographic hegemony into a commensurate politico-military hegemony.

In this context, three strategies developed that addressed the problem of total war.

- Germany very early developed the concept of the **attaque brusquée**—a peacetime attack without any warning or mobilization mounted only by a nation's active duty forces. Its aim was to maximize surprise, not overall combat readiness and firepower, by neutralizing an opponent's national command and control network and paralyzing its mobilization. This doctrine sought a quick campaign termination that avoided the grave military and social costs of total war.
- The **blitzkrieg** sought to employ a fully mobilized nation in arms using the most sophisticated weaponry to defeat another similarly warned belligerent. By optimizing the application of force to win decisively in a shortened campaign, the blitzkrieg also sought to avoid a war of attrition. Its target was the opponent's army, and the blitzkrieg aimed to disrupt opposing generals' perception-reaction loops by surprise, rapidity, and concentrated power.
- An **attrition strategy**, whereby the Allies parried any German attack and held a continuous front behind which they could mobilize the full industrial and demographic weight of their nations and empires and of North America. After establishing such superiority, a counteroffensive would follow.

Table 1 schematically compares the concepts of war embodied in the terms attaque brusquée and blitzkrieg, which may each be seen as alternatives to fighting a war of attrition, another First World War that no one wished to repeat.

The doctrine of attaque brusquée admirably fit the Reichsheer, the long-service standing army to which the Versailles Treaty limited Germany, just as Versailles forbade Germany the reserves necessary for a

Table 1

COMPARISON OF ATTAQUE BRUSQUÉE, BLITZKRIEG, AND WAR OF ATTRITION

Characteristic	Attaque Brusquée	Blitzkrieg	War of Attrition
Chief pre-hostilities danger	Loss of surprise, which may lead to effective counter-measures, e.g., fortifications, rearmament, or preparation of specialist defense forces.	Costly to raise and equip required army, which can forfeit surprise while weakening internal cohesion and economy. If buildup mistimed or campaign delayed, enemy can be ready or equipment obsolete when used.	1. Attaque brusquée. 2. Over-hasty rearmament risks economic health, hence lessening chances of ultimate victory. 3. Must keep in step with Allies, who may not share political goals.
Warning	None. No diplomatic warning. Surprise complete.	Limited tactical warning or indication of zone attacked, but state of war present.	Ample. Formal diplomatic prelude, mobilization.
Forces	Peacetime activities only, but best if motorized elite professional forces available.	Substantial reserves in addition to best units equipped with finest mobile weaponry to spearhead assault.	1. Nation in arms. 2. Colonial empire. 3. Allies.
Concept of operations	Preventive, pre-emptive war from standing start best on a weekend. Aims to avoid war of attrition by paralyzing national command-control centers and preventing enemy mobilization.	Rapid defeat of enemy army through concentrated attack along 1-2 axes that prevents stabilization of fronts. Campaign dislocates command-control of enemy army, encircles and defeats in detail.	After initial aggression repulsed, fronts stabilized. Defender must avoid premature counter-offensive, staging only limited local offensives to husband resources while strength built up. Other methods: 1. Blockade/economic warfare. 2. Strategic bombing.

Table 1—continued

Characteristic	Attaque Brusquée	Blitzkrieg	War of Attrition
Cost if initial campaign failed	War of attrition for which attacker may not be prepared.	War of attrition for which attacker may not be prepared.	Additional casualties, prolongation of what already was expected to be a long war.
How termination achieved	Seizure of political-population centers that destroys chances of organized resistance.	Destruction of opponent's field army as fighting force (or that of any ally), forcing either to withdraw from war.	1. Wearing down of enemy army, resources. 2. Occupation of territory, especially industrial zones. 3. Economic collapse and social revolution. 4. Operations out-of-theater.
Cost if war lost	Ruin, revolution, and dismemberment.	Ruin, revolution, and dismemberment.	Ruin, revolution, and dismemberment.

mass army. Foreign critics such as B. H. Liddell Hart admired this doctrine, convinced that as war became more technical the importance of trained specialists far outweighed that of numbers. Then, too, military thinkers were obsessed with avoiding the ill-trained mass armies of World War I, which they believed caused the stalemate in the trenches. To those who pondered the lessons of the war, it seemed that the future belonged to the army that could deliver a rapid and decisive result. The best way was to strike at the political and transportation centers of one's foe, paralyzing mobilization while decapitating its leadership.

In fact, although he publicized the idea widely, von Seeckt and the officers of the Reichsheer never saw their men as anything but the cadres for eventual expansion into a full-sized army. Every officer and soldier was trained for promotion to the next highest rank in the event of crash rearmament. This expansion took place in 1934–1935.

The fear of an attaque brusquée by a permanently mobilized and motorized professional army led to a preoccupation by the defenders with the couverture. The couverture was both a concept signifying an intact frontier as well as, to the French and Belgian militaries, a state of partial mobilization sufficient to repel an attaque brusquée. Under this scenario, the purpose of a nation's active forces was to permit the full army to be mobilized without disruption. Both the Maginot Line and the Belgian forts at Liège can be thought of as covering the strategic frontiers against the dreaded attaque brusquée, affording both nations the chance to deploy what was their great strength—their mobilized trained manpower. This ultimate weapon would then be used to wage a war of attrition.

It should not be thought that nations desired to wage a war of attrition. Germany, as a potential aggressor, sought at all costs to avoid such a war altogether, hence, the attaque brusquée and the blitzkrieg—efforts to employ available forces to avoid a war of attrition. Defenders' planning, it will be argued, aimed to ensure first that they would not be defeated in a war of attrition. This meant at all costs securing essential economic interests by avoiding overcommitment to unproven technologies but retaining the capability of expanding and reequipping their armed forces. Waging a prolonged war of national effort placed a premium on maintaining national unity and remaining on good terms with allies and neutrals. None of these requirements, however, facilitated vigorous military planning or offensive strategies. Quite the contrary, the absolute requirement that war of attrition-fighting capabilities not be impaired hobbled French and British planning and precluded Belgium's adopting plans for collective security. The defenders' dilemma was further complicated by having to defend

simultaneously against an attaque brusquée, preparation for which inevitably entailed a tradeoff with defense in a war of attrition. For the British, this dilemma was met by a heavy investment in a strategic bomber deterrent that came at the expense of continental war-fighting capability but which had definite value in a prolonged war. For the French and Belgians, costly fixed fortifications served the same dual purpose on land, providing a couverture against an attaque brusquée and a stable continuous front should the conflict become a war of attrition.

There is an anachronistic tinge to our definitions of and distinctions between the attaque brusquée and the blitzkrieg. General Maurice Gamelin, French Chief of Staff and Allied generalissimo (1939–1940), and most French strategists saw the blitzkrieg as practiced against Poland as another form of the attaque brusquée: the response to which called for holding the front more lightly (with inferior forces) and using mobile reserves close at hand to defeat any local breakthroughs. For them, relatively new weapons systems such as the tank and airplane increased the pace and perhaps the intensity of the war but did not portend a revolution in doctrine.

The evolution of the blitzkrieg in German doctrine and planning was paced by its successes in the field, more than by any debate amongst theorists. Its strongest proponents, men like Guderian and Manstein, had taken part in or studied the German offensive in March 1918, with its exploitation of Hutier's innovative infiltration tactics, or in later small, mobile actions in chaotic eastern Germany and Poland at the end of the war. They came to appreciate the advantages and potential of mobility conferred not merely by motorization and mechanization, but also by advances in communication. This group of officers exploited Germany's traditional military prowess and Hitler's gambler's instincts to produce the wherewithal for blitzkrieg—lightning war that sought to overcome the tactical defense's inherent advantages by outpacing the enemy's forces and command and control. It was Germany's campaign successes—the speed and apparent ease with which they were attained—that breathed life into the doctrine of blitzkrieg. What worked once was refined and polished, to work yet better a second time.

Therefore, when we distinguish among "concepts of war" we must recognize that although the war of attrition and attaque brusquée were very real options at the time, the blitzkrieg was an evolving concept, shaped more by the Campaign in the West itself, in fact, than by any other event or by theory.

This study integrates the diplomatic and internal politics of the nations into the military planning process, emphasizing on all counts

the dependence of the soldiers and airmen on their governments' foreign policies and, crucially, on demographic and budgetary constraints. In no case did any country's military work with anything approaching its conception of the optimal plan. Too many other factors were at play.

In Germany's case, of course, military planning reflected Hitler's goals, notably after 1938 when he purged his conservative military opponents and moved toward establishing the Thousand-Year Reich. In the parliamentary regimes, antimilitarism, ethnic conflicts, depression-era balanced budgets, and colonial and international responsibilities limited the resources that were available. In the case of France, the one-year service established in 1927–1928 effectively deprived the army of any hope it might have had of planning offensive operations. A defensive military doctrine followed the public's unwillingness to fight another war for something so intangible as "security."

Britain's military thinking grew out of a similar revulsion from European conflicts. In terms of this period, Britain was the nearest thing to a global power, and its military policies in the interwar years illustrate the difficulties of playing so grand a role. Increased imperial commitments after 1919 turned the army away from modern warfare in favor of police actions against non-Western opponents. Most decisively, however, fear of the bomber dominated both public and governmental thinking on the shape of the next war, producing the mentality that sought appeasement at nearly any price. At the official level, fear of an aerial attaque brusquée oriented rearmament toward the bomber deterrent and then toward antiaircraft defense, never toward the army or tactical air power. Fear of the bomber led to plans useful only in a war of attrition, which was not, however, the only possible result if deterrence failed. The lack of other war-fighting capabilities led to the one circumstance that made the nightmare of bombing come true: German control of France and the Low Countries.

Germany's planning was a sequence of brilliant improvisations, keenly attuned to Hitler's immediate political requirements. The wave system of arming Germany's troops, distributing weapons and equipment unequally throughout the army, permitted Hitler to confute Western expectations that his economy could not sustain military expenditures on the scale expected. German plans for war in the west succeeded because they broke from the conventional expectations of the military professional. Had the more traditional planners won the day in 1939–1940 and taken the German forces straight through the Aachen Gap to the Flemish Plain—exactly the course foreseen by French military intelligence—then French planning would have potentially scored a great triumph.

It is often said that as World War II approached the French aimed to repeat the 1914–1918 war of the trenches. This is too harsh if crudely understood to mean an utterly static positional warfare. The French did study closely the spring and summer campaign of 1918 when the German army smashed through the linear defenses of the Allies only to meet more flexible in-depth defenses and then fall before a victorious counteroffensive. In both doctrine and equipment, the French army of 1940 was looking for that counteroffensive, although officers tended equally to think in terms of simply stabilizing the front and waiting for the German economy to collapse. The French army in May 1940 was attempting to revise its doctrine and reorganize in the face of the new war revealed in Poland and to incorporate the sophisticated weapons belatedly becoming available.

ORGANIZATION OF SUBSEQUENT CHAPTERS

The Battle of France has generated an enormous literature, but comparatively little treats the part played by plans. Partly this is due to the destruction of French and German archives, so that little in the way of the plans themselves survives. The material we present is primarily but not exclusively based on printed books and periodical articles, the most important of which are discussed in the Selected Bibliography. We also draw on primary sources, largely notes from meetings and internal governmental memoranda.

We discuss planning by each of the four countries of interest in sequence: France (Chapter II), Great Britain (Chapter III), Belgium (Chapter IV), and Germany (Chapter V). Within these chapters we survey each nation in parallel fashion, treating first its essential national strategy and international position, second, its army planning, and then air forces planning.[1] Because of the focus of the study we do not examine other nations' prewar planning, such as Italy and the Soviet Union.[2]

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[1]Because we focus on planning for the Battle of France, naval concerns are secondary. Although we mention economic blockade and a potential German U-boat campaign, all primary considerations deal with the employment of ground and air forces.

[2]The case for omitting the latter is simple: The USSR had a minor role in the contingency planning for the Campaign in the West. German and Allied considerations about possible impacts on the Soviet Union are treated in this study. We omit Italy because all the nations concerned saw the Low Countries and northern France as the crucible of war—not the Italian-French border. Although Italy played a major diversionary role, especially as concerned British policy in the Mediterranean Basin, we include Italy only so far as how Italian capabilities and will were seen to affect other nations' planning for the Campaign in the West.

Having described the prewar plans in Chapters II through V, we discuss in Chapter VI how the Allies changed their war plans in 1939–1940. Here, there was much more consultation and interaction among the three countries, so we discuss them together in one chapter.

Chapter VII presents some of the possible conclusions that can be drawn from the history of planning between 1919 and 1940. In some instances we offer our opinion regarding how well or poorly the historical record supports positions in current defense policy debates.

Two appendixes provide additional detailed material that is primarily descriptive but relevant to certain arguments. These address fortifications (Appendix A) and the size and composition of armies (Appendix B). Finally, we include a bibliography of books and articles.

II. FRENCH PLANNING FOR A WAR WITH GERMANY

FRENCH NATIONAL STRATEGY

The Legacy of Versailles

French strategy after the First World War never questioned that Germany would seek to reverse the war's verdict.

Pre-World War I plans had been oriented to recapturing lost French territory, which simultaneously entailed aiding Russia. Postwar plans aimed only at containing a German war of revenge, not in assisting Czechoslovakia or Poland. A tacit political assumption underlying all French military thinking was that Germany would not leave its own western borders open to cross swords with either of the two eastern allies. Rather, French thinking assumed that Germany would attack France either directly or through Belgium and that consequently its eastern allies' armies would at the least limit the numbers Germany could employ against France.

The French and Belgian general staffs signed a military convention in 1920 to enforce their joint occupation of the Rhineland. Although this is sometimes spoken of as a military alliance, it did not compare with the diplomatic alliances signed with Poland (1921) and Czechoslovakia (1924). But the Belgian Pact, like the others, reflected French satisfaction with the war's outcome and their determination to uphold it.

Because French national strategy sought to maintain the Versailles settlement, French military thought focused on defeating a German war aimed at reversing the outcome of 1918. And since France anchored the Versailles settlement, it was against France that the German blow would fall. This gave French military thought its defensiveness—this and the lessons of World War I, which demonstrated the strength of fortified positions and the weight of firepower needed to overcome them. But World War I had been won in spite of the trenches, the artillery, the machine gun, and Germany's demographic edge. The Germans had overreached themselves in the spring and summer of 1918, and the Allied counterstroke had done it.

As the French saw it, the problem they faced in a future war was to avoid any premature offensives, such as had nearly cost them the war in 1914 and again 1917, but to parry the inevitable initial German

attack and to be ready in good time to mount a victorious offensive against an invader at the limits of his communications.

In appraising their position, the French were limited by political and budgetary constraints. Between 1927 and 1937, the period of one-year military service, France had no hope of matching Germany. Further, the demographic balance, which already tilted against France in 1914, tipped steadily in Germany's favor between 1935–1940—"the hollow years," which corresponded to the war years when the French birthrate had plunged catastrophically. Germany's population in the 1920s was roughly 20 million—one-third greater than France's. France had suffered 1,560,000 dead in World War I; as important was the birth deficit, which amounted to almost as many. As a result, France in 1940 had only 4.3 million men of military age (20–34). In contrast, Germany had 8.3 million within its frontiers of 1937 and 9.4 within its frontiers of 1939.[1]

Modern total war required that the nation mobilize its entire resources. German industrial production was twice France's.[2] Significant French industrial and mineral resources were concentrated near the German and Belgian borders. A strategy that surrendered critical frontiers to maintain a war of movement was not a possibility. Instead, the French sought to maintain a continuous front, taking advantage of geography and fixed defenses wherever possible to economize on military manpower and to buy the time necessary for France, with empire and allies, to build up the resources required to defeat a German invader. Waging a war of attrition would take years and could not be hurried without risk of ultimate failure.

The Geography of French Defense

A German invader of France had a choice of four classic routes, as shown in Fig. 1:

1. Through the Aachen Gap, i.e. the axis Aachen-Liège, before deploying on the broad Flemish Plain and entering France on the more than 200-mile-long Franco-Belgian border and proceeding in the direction of Paris. This was the route of the Schlieffen Plan's advance in 1914.
2. Across the Palatinate region between Longwy and Lauterbourg, some 115 miles, and then through the Moselle Valley to

[1]Dudley Kirk, "Population and Population Trends in Modern France," in Edward Meud Carle (ed.), *Modern France: Problems of the Third and Fourth Republics* (Princeton, 1951), p. 317.

[2]Robert Young, *In Command of France* (Cambridge, Mass., 1978), pp. 16–17.

Metz or through the Saar Valley into Alsace and Lorraine, essentially the route of advance taken by Prussian forces in 1870.

3. Across the Rhine between Lauterbourg and Basel, some 110 miles.
4. Through Switzerland and then across the 255-mile Swiss frontier with France.

Attack through the Aachen Gap would violate Belgian neutrality and would almost certainly prompt British intervention. The Aachen Gap presented a restricted line of communication (LOC) blocked by modern fortresses.

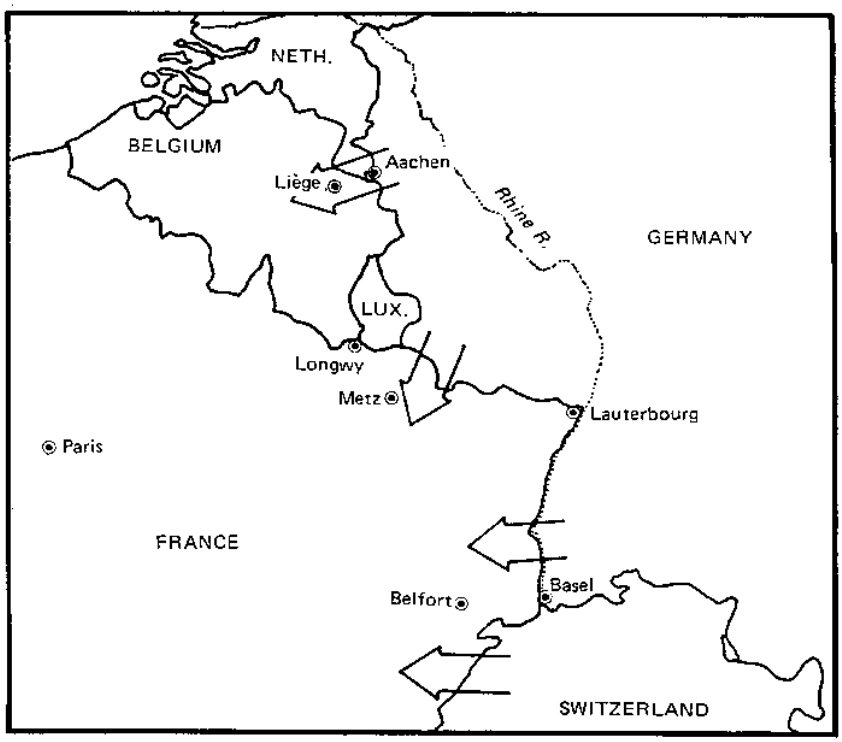

Fig. 1—Major invasion routes into eastern France

An advance across the Palatinate into Alsace and Lorraine was feasible, as the Palatinate's plains permitted the concentration of substantial forces, especially mechanized units. It was here that the French built the modern fortifications known as the Maginot Line. Appendix A provides details on the Line.

A direct advance across the Rhine offered little prospect of surprise because troops could scarcely be concentrated inconspicuously in the Black Forest, and the region lacked adequate communications for a modern army. The French had only light field fortifications on the Rhine, a swiftly flowing river, which could be transformed into a still greater obstacle by demolishing bridges and dams.

An advance through Switzerland meant dealing with both Swiss and French forts in the Jura Mountain passes, even more unpromising avenues of approach with the advent of air power. The low-lying Belfort Gap, 12 miles wide, between the Jura and the Vosges range was blocked by the fortified city of Belfort.

Consequently, the obvious line of advance for a German invader in the 1930s lay through Belgium. Weak militarily, Belgium's geography virtually forced a German invader through the Aachen Gap. The Ardennes Forest, hilly and lacking good road or rail links, was not suited to the advance of a modern army. French and Belgian planners were confident that demolitions of bridges and the felling of trees could deny the region to any other than a raiding force. To the north of Aachen and Liège, the marshes of Dutch Limburg, which inundations could extend, would likewise compel the Germans to proceed by way of Liège.

German rail and road communications, many of the former thoughtfully built in the years before World War I to accommodate the Schlieffen Plan, were ample.

The key to French plans was the position of the Rhineland, the approximately 100-mile-wide strip on Germany's western border[3] that the Versailles Treaty demilitarized and permitted Allied troops to garrison.

French planning can be divided into three stages corresponding to the degree of control France exercised over the Rhineland. From 1919–1930, French troops occupied the Rhineland; from 1930–1936 the Rhineland was demilitarized and ungarrisoned; and from March 1936 onward it was first occupied then fortified by the Germans.

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[3]Technically, the demilitarized portion of the Rhineland included all German territory west of the Rhine and all territory 50 km east of the river.

Events Influencing French Planning (1920–1939)

Between the wars France negotiated a series of alliances aimed at recreating the counterbalance to Germany that Tsarist Russia had been. Figure 2 shows how France's alliances with Belgium (1920), Poland (1921), Czechoslovakia (1924), and the Soviet Union (1935) "contained" Germany on the east and west.

Table 2 summarizes the background of international events, military service, and degree of control of the Rhineland that molded French plans.

FRENCH ARMY PLANNING

The Period of French Hegemony, 1919–1924

Only during 1919–1929 did French military planning provide for vigorous offensive operations, and then plans were severely circumscribed—as was all French strategy—by the requirements of international politics. Put simply, France could not take action against Germany without British backing. At the least, benevolent neutrality was necessary given the extent of French economic dependence on the British Empire. And British backing was necessary to secure Belgium's cooperation, for Belgium was determined to avoid being dragged into war by France and becoming Europe's battleground again. France's dual dependency on a former ally determined from the Armistice onward to achieve the "appeasement" of Europe and on the small nation whose security mattered scarcely less to France than its own did not allow an active role for the French military.

The high-water mark of French military and political self-confidence was between the Armistice and 1924, when France evacuated the Ruhr, which France and Belgium had occupied in 1923 to enforce German reparation payments. During this period, Franco-Belgian relations were never tighter, and military plans in France were predicated upon joint cooperation and the use of Belgian territory through which to enter the Rhineland.

Plan P,[4] drawn up in 1920 and in effect from 1921–1923, assumed cooperation with Belgium and joint use of the Rhineland in the event of war with Germany. Table 3 explains its principal geostrategic assumptions. Significantly, it reckoned on a Czech offensive into Bavaria, which would join with French units to cut Germany in two

[4]Colonel François-André Paoli, *L'Armée Française depuis 1919 à 1939,* Vol. II, pp. 165–166; General P. E. Tournoux, *Défense des Frontières* (Paris, 1960) discusses all French plans briefly in Annexe I.

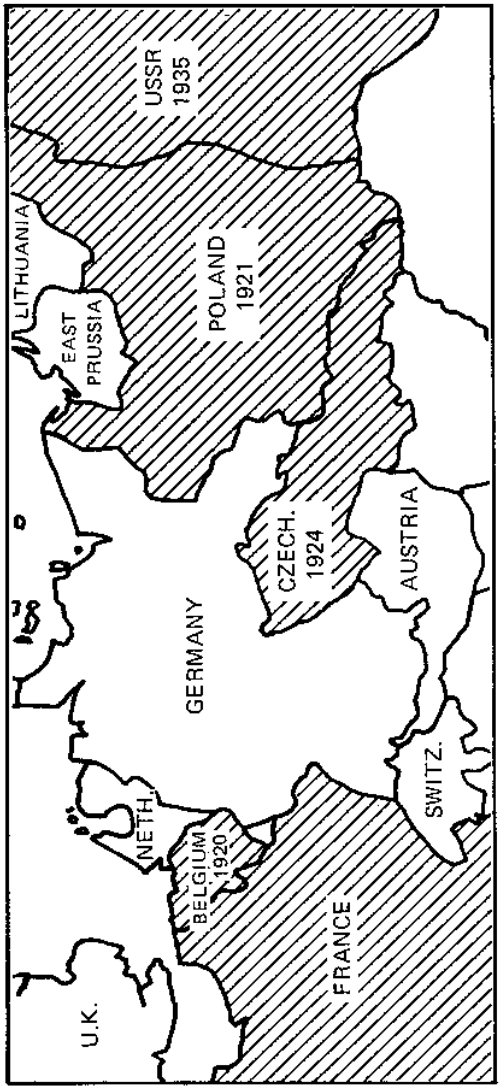

Fig. 2—French alliances to contain Germany, 1920–1935

Table 2

FACTORS INFLUENCING FRENCH PLANNING

Year	Army	Diplomacy	Rhineland	World/Empire	Maginot Line	Plans
1920	3-year service	Belgian agreement	Occupied			
1921		Polish alliance				P
1923	18-mo. service	Ruhr occupied				
1924		Czech alliance				A
1925		Locarno Treaty		Riff War & Syrian unrest		
1927	1-year service begun					
1928				Worsened relations with Italy	First credits voted	
1929					Construction begun	Defensive Plans B
1930			Evacuated			
1932		Disarmament Conference				C
1933		Hitler				
1934		Germans quit League & Disarmament Conference			Main works completed	D
1935		German Luftwaffe and conscription		Ethiopian crisis		
1936	2-year service begun	Belgian neutrality	Rhineland remilitarized	Spanish Civil War	Manned for first time	
1937			Defenses begun		Extended to north	
1938			Siegfried Line begun		Frontier defenses improved	
1939						D, E, and D-Breda

Table 3

FRENCH PLAN P

Dates	Drafted 1920; in effect 1921–1923.
Purpose	Enforce German compliance with terms of Versailles Treaty.
Objectives	Occupy major German industrial regions (Ruhr and Main River valleys); conclude hostilities within 6–12 months with armistice.
Threat Assessment	German Reichwehr deployed half against West, half against East (Poland and/or Czechoslovakia). Germany limited to 100,000 actives (ten divisions), no reservists, military aircraft, fortifications, armored fighting vehicles (AFVs), or heavy artillery. German economy burdened by heavy reparations.
Concept of Operations	French and Belgian units occupying Rhineland to disrupt full German mobilization by seizing major population centers (attaque brusquée), and holding these regions after erecting light field fortifications against German counterattack. Simultaneous or near-simultaneous Czech thrust into Bavaria to bisect Germany.
Available Forces	France had 80 infantry divisions based on three-year service. Plentiful modern weapons including AFVs and air force.
Geostrategic Context	Rhineland (territory on either side of the Rhine to a depth of 100 miles) occupied by French, British, Belgian, and American troops.
Bilateral Relations	Belgium: Close relations. Military agreement between general staffs signed 1920. French plan predicated on use of Belgian territory.
	Britain: British worried by size of French air force. Disputes over reparations such that Britain unlikely to support Plan P. British had refused to join France in guarantee of Belgium.
	Czechoslovakia: Cordial. Although not allies, French anticipated Czech offensive into Bavaria.
	Poland: Alliance with Poland, 1921. Poland militarily weakened after war with USSR, 1920–1921. French plan included vague reference to aid from Poland (though not the reverse).
	French Empire: Calm. French colonial and North African units available for use in Europe.

and form a common front. Most important, it rested on a seasoned French army based on three-year service. The plan assumed that half the Reichswehr would be deployed against the Poles and the Czechs. Plan P envisaged French and Belgian actives disrupting German mobilization by occupying major German industrial regions, the Ruhr, and the Main River Valleys and erecting light field fortifications against a German counterattack. Behind this barrier, the remainder of the

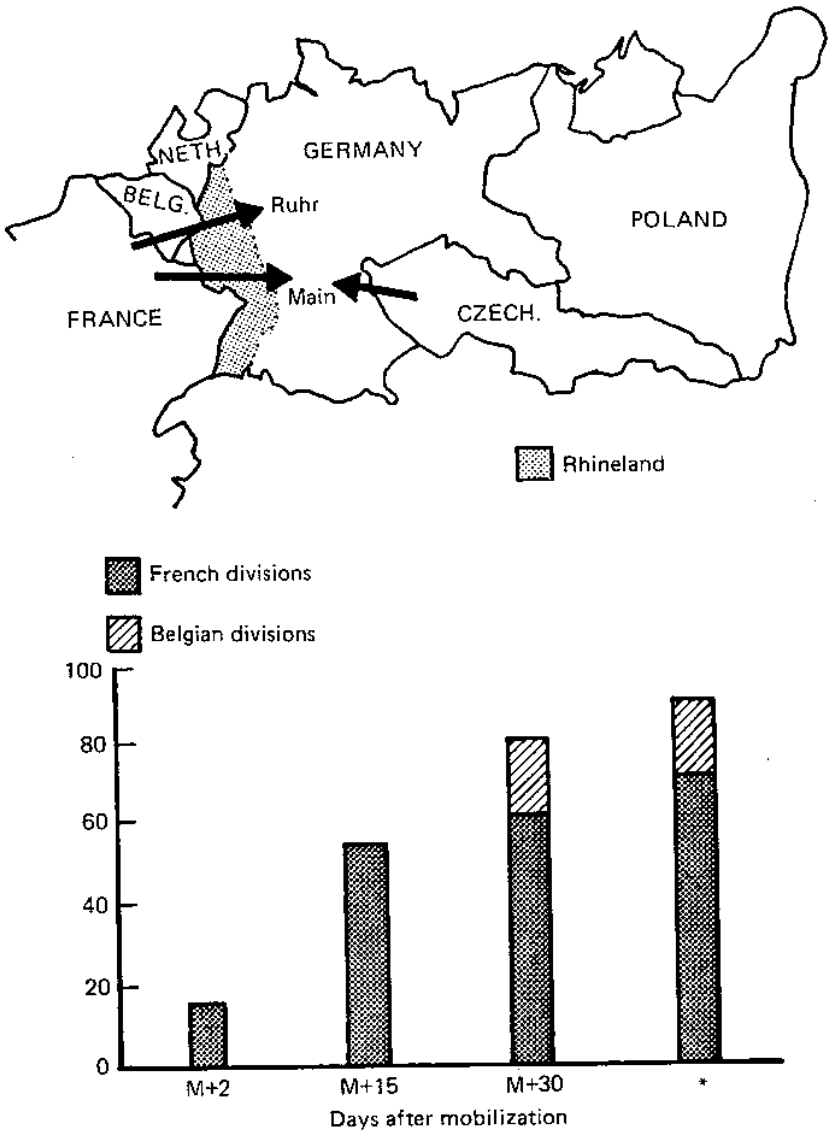

Fig. 3—Projected offensive in French Plan P, 1921–1923

Allied army would mobilize. Figure 3 depicts Plan P's projected offensive.

Although it aimed to prevent Germany's deploying its full resources, its fundamental assumption was that an armistice would conclude hostilities within six to 12 months. During this time, the fact of the French field army's being mobilized and in occupation of important German territory would strengthen French diplomacy.

Despite being drawn up only two years after the Treaty of Versailles, Plan P conceived Germany as fundamentally stronger than France, as its defensive second stage suggests. In addition, it acknowledged that international diplomatic support, not simply power, was needed to terminate the campaign successfully.

From the Ruhr to the Evacuation of the Rhineland, 1924–1929

In the wake of the diplomatic defeat suffered by France's occupation of the Ruhr, the French military responded with a new plan, **Plan A**.[5] Its scope reflected the 18-month service law enacted in 1924. Plan A aimed to mobilize the greatest number of Franco-Belgian divisions as rapidly as possible for the purpose of penetrating Germany east of the Rhineland. The main thrust was to be along either the axes Mainz-Lauterbourg or Düsseldorf-Coblenz, which aimed to relieve Poland in the event of a German or a German-Soviet attack, a distinct possibility in view of the Rapallo Treaty between the two pariah states, and their secret military collusion. The French thrust into Germany is illustrated in Fig. 4.

The inflated figure of 90 French divisions presumed the 18-month service law, which, however, was superseded in 1927 by one-year service. As Table 4 suggests, other factors undermined its usefulness. Deteriorating Franco-Italian relations raised the possibility of France's having to maintain a southeastern front. More immediately, the French Empire experienced two serious colonial wars simultaneously, in Morocco and in Syria, which required the dispatch overseas of almost 230,000 troops in 1925–1926. Conversely, the two wars meant that North African or white colonial divisions would not be available for the defense of metropolitan France. On top of this, the French organized six "colonial" divisions out of their standing army at this time to deal with imperial emergencies. Composed of long-service professional soldiers, these were a kind of rapid deployment force upon which the empire had first call. Unfortunately, they came at the

[5]Paoli, Vol. II, op. cit., pp. 166–167.

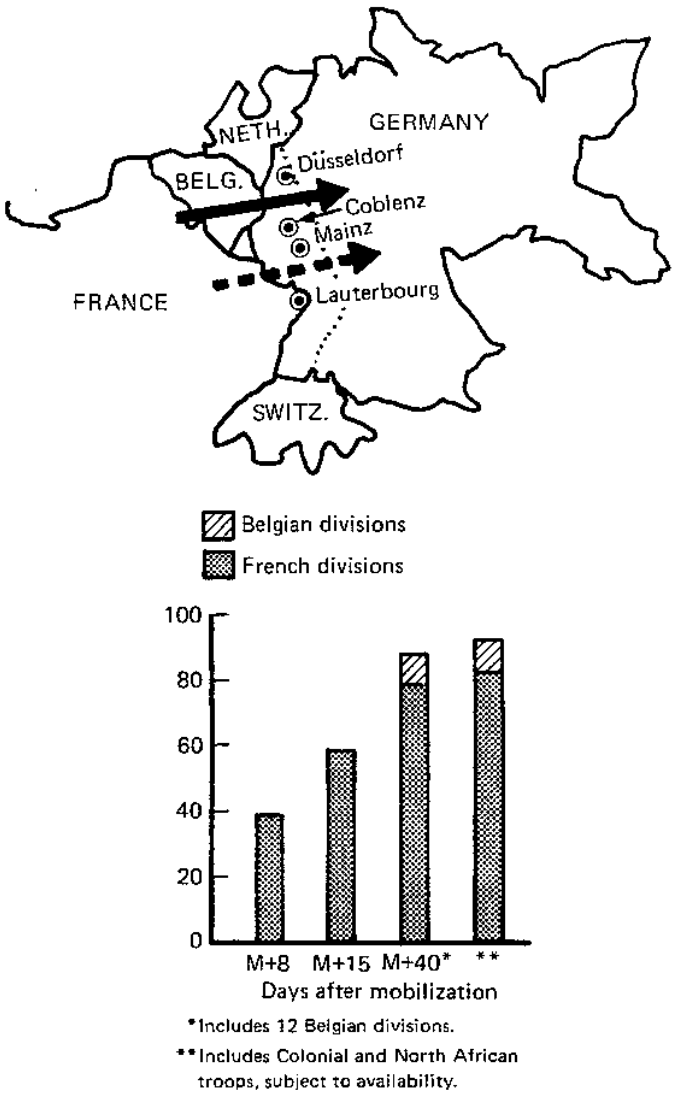

Fig. 4—Projected offensive in French Plan A

Table 4

FRENCH PLAN A

Dates	Drafted 1923; in effect 1924–1928.
Purpose	To defeat a revived Germany in a full-scale war.
Objectives	To carry the battlefield as deeply into Germany as possible to prevent Germany from crushing Poland.
Threat Assessment	Reichswehr now recognized as formidable elite force, possible nucleus for wartime expansion. Veterans organizations and various paramilitary bodies thought to be capable of supplying reserves technically forbidden. German-Soviet military cooperation source of modern weapons expertise.
	Germany still limited by Versailles Treaty disarmament clauses, but clandestine rearmament well under way. German economy stabilized after 1924.
Concept of Operations	Troops to seize Ruhr Valley and establish base of operations for advance across North German Plain to Berlin. Secondary effort to be made across Rhine depending on circumstances for possible link with Czechs, but rescue of Poland was primary aim. Fighting as far from French soil as possible.
Available Forces	France had 90 divisions, assisted by 12 Belgian. 18-month service in effect. Modern weapons for only 55 divisions.
Geostrategic Context	Rhineland still occupied. German-Soviet Rapallo Treaty (1922) suggested alliance might exist or soon exist. Clandestine military collaboration known.
Bilateral Relations	Belgium: Military agreement in effect. Some French troops to transit Belgium. Belgian army assumed to cooperate.
	Britain: Cool. No Franco-British staff talks because Locarno Treaty bound Britain to defend both France and Germany. British disinterested in Poland; support for Plan A uncertain.
	Czechoslovakia: Cordial. Alliance 1924. Initial version of plan had southern forces supporting Czechs.
	Poland: Alliance 1921. German-Soviet entente threat to Poland.
	French Empire: Riff War (Morocco, 1925–1926) required substantial reinforcements from metropolitan France. Druze revolt (Syria-Lebanon, 1925–1927).

expense of the standing army, which became more than ever a vehicle for processing the annual intake and so building reserves for a war of attrition, while remaining strong enough only to provide the couverture.

Because of this, the French in 1928 dropped plans for offensive operations in any future conflict with Germany. This was the great divide in French strategy when defensive-mindedness set in. French thinking aimed at repelling an initial German attack on the west, which would permit France and French allies to mobilize their war potential and to launch a counterattack on Germany perhaps two years after a declaration of war. Mobilization schemes sought now to raise the largest number of units within a month, even if this meant reducing the number of actives immediately available for operations.

Frontier fortifications now began to be widely discussed, for they enabled France to husband her slender manpower resources, compelling Germany to attack on grounds of French choosing, where France's best units could be best employed. Effectively, this meant that Belgium would be the battleground, where the prompt deployment of motorized infantry could hold a defensible water line, the Meuse above Liège, the Escaut (Scheldt), or somewhere closer to Germany.

Taken as a whole, the 1928 recasting of French doctrine was the point of no return, a road taken well before the threat of Hitler and even of a Reichswehr capable of mounting an attaque brusquée. It stemmed from the requirements of Empire, from domestic politics, and from the era of good feelings in Europe inaugurated by the Locarno Treaties of 1925, which made French plans seem supererogatory at best, truculent at worst.

Strategically, revisions in 1928 dropped earlier estimates discounting the possibility of a German advance through Belgium, which was now seen by Marshal Pétain as the greatest and most probable danger facing France. As a result, the new 7th Army was created for the left flank, and the center group of armies' plans were recast to hold the line Landau-Birkenfeld in the Rhineland, not to advance to the Rhine itself.

French Planning from 1929 to 1936

The impending evacuation of the Rhineland and the renascence of German military power forced a further scaling down of objectives. **Plan B**[6] embodied features that characterized its successors drawn up in the shadow of Hitler. It was avowedly defensive, aiming to defend

[6]Paoli, Vol. III, op. cit., pp. 99–101.

the national territory as a first priority. Troops in the Rhineland were to retreat through successive defensive lines. Plan B had no provisions for fighting past the Rhenish glacis. Not for nothing did 1929 see the first credits voted for the frontier fortifications destined to become the Maginot Line.

Plan B envisioned a strategic retreat, as shown in Fig. 5. It also reflected deteriorating Franco-Italian relations in projecting both partial and full mobilizations against either Germany or Italy or both. Table 5 illustrates its other geostrategic assumptions. It also included provisions for supporting Belgium once full mobilization was accomplished. French planners took into account the possibility that the Germans might move through the Ardennes to cross the Meuse but expected this to occur only after an attack through Belgium had been halted. They expected 8–9 days' tactical warning, as the Germans would have to redeploy artillery and supplies before such an attempt.

In response to the evacuation of the Rhineland and the worrisome attitude of Italy, another plan was adopted in May 1931, **Plan C**.[7] Table 6 lays out the international context out of which it arose. Plan C envisaged a number of supple responses to possible invasions through Belgium, Lorraine, Alsace, or Switzerland. It featured alternative scenarios for employing individual classes of the disponibles (the most recently discharged reservists) to meet a possible attaque brusquée. With the Maginot Line under way, it took into account specialized fortress troops to employ more effectively the diminishing numbers of conscripts available. But its core was the projection of mobile armored units, the divisions légères méchanisées (DLMs) capable of rapid movement from the northeast front to the southeast.

Depression-born limits on military spending combined with one-year service to compel the general staff to draw up another scheme, **Plan D**,[8] in April 1933. Its purpose was minimal—to secure the couverture, with less than a full mobilization so as to parry an attaque brusquée by the Reichswehr. Table 7 shows the relationship between the more narrowly defensive plan and France's troubled international position. To achieve this degree of protection meant not only relying on existing actives but recalling the disponibles and the first class of the reserves to man the Maginot Line. Although this permitted a larger covering force than heretofore, it introduced a rigidity that dogged French leaders' efforts to respond rapidly to Hitler's surprises, such as the reoccupation of the Rhineland in March 1936. The recall of any civilians to the colors was a serious step, one that suggested war,

[7]Paoli, Vol. IV, op. cit., pp. 47–48.

[8]Paoli, Vol. IV, op. cit., pp. 48–49.

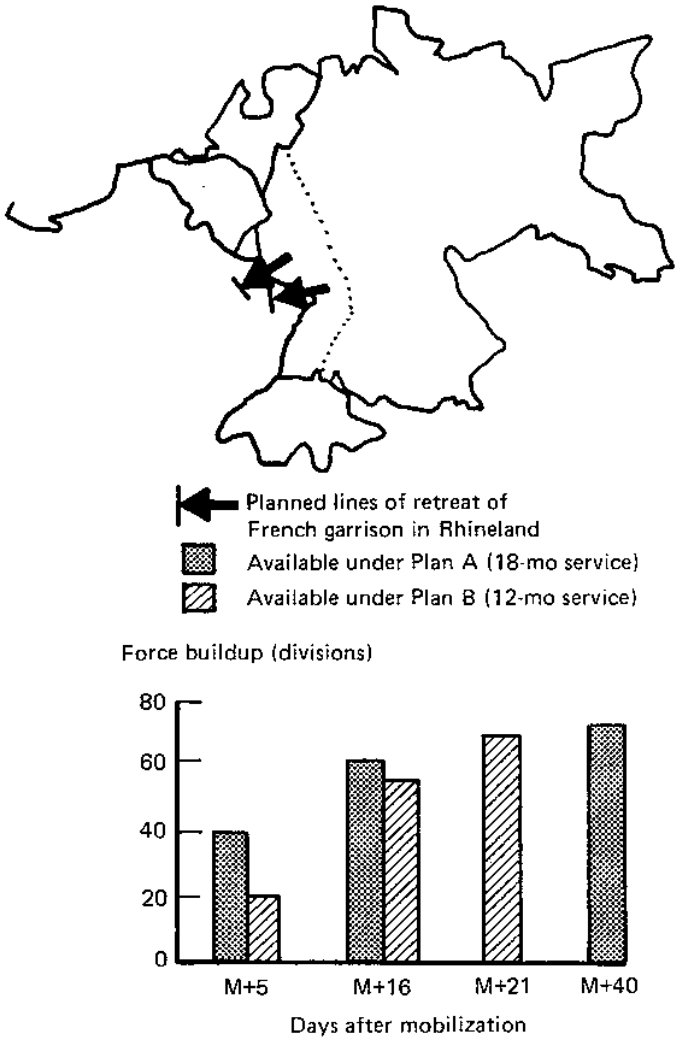

Fig. 5—Projected withdrawal in French Plan B

Table 5

FRENCH PLAN B

Dates	1929–1931.
Purpose	To secure French national territory against possible German or Italian attack.
Objectives	Troops in Rhineland to fight a series of delaying actions while full mobilization accomplished. Then, French army to support Belgians. Troops in southeast to remain on alert, observing Italy.
Threat Assessment	German Reichswehr seen as conversant with attaque brusquée now that Rhineland partially evacuated.
Concept of Operations	Entirely defensive until full mobilization complete. Defines couverture as 21 infantry and five cavalry divisions (northeast) and seven infantry divisions (southeast). Provided three levels of manning the couverture depending on degree of threat, most recently discharged conscripts first to be recalled. Included plans for defending North Africa. Also provided for partial mobilizations against either Germany or Italy or both with full mobilization.
Available Forces	Maximum of 70 divisions possible with one-year service. Only 20 active divisions in metropolitan France, and only 100,000 long-service enlisted men. With full mobilization, 52 divisions allocated for northeast (i.e., Germany) and 15 for southeast (Italy).
Geostrategic Context	Coblenz zone of Rhineland evacuated in 1930 but still demilitarized.
Bilateral Relations	Belgium: Belgian army no longer counted as asset, and Belgium seen as liability to be defended to keep fighting from French soil.
	Britain: No military conversations. Relations correct.
	Italy: Attitude increasingly uncertain under fascism. Active rearmament measures seen as threat.
	French Empire: Quiet, but French North Africa vulnerable to Italian aggression from Libya. Plan B made no provisions for colonial or North African forces being available for defense of metropolitan France.

Table 6

FRENCH PLAN C

Dates	In effect 1931–1933.
Purpose	To secure France against attaque brusquée and provide mobile forces to assist Luxembourg or Belgium.
Objectives	With Rhineland evacuated and first stages of Maginot Line under way, Plan C aimed to secure the couverture and more effectively to aid Luxembourg and Belgium. Defensive, it aimed to mobilize entire strength of France behind the couverture.
Threat Assessment	Frontier guards now rated by French military intelligence as potential regulars if armament brought up to standard.
Concept of Operations	Employed units released from couverture by development of the Maginot Line to form mobile reserves. These units were also to assist Luxembourg or Belgium if called upon.
Available Forces	Three division-equivalents of fortress troops now available; otherwise, 77 divisions, including four from North Africa. First stage of the couverture required recall of three classes of the immediately available reserve. Plan B had provided only for recall of one class of the immediate reserve.
Geostrategic Context	Rhineland under German control but demilitarized. Geneva Disarmament Conference in session 1932-1933, creating possibilities of further reductions in forces through general disarmament agreement. Much discussion of "offensive" weapons being outlawed. France escaped worst of the world depression until late in this period, but despite realization that army's equipment was obsolescent, funds were not available to launch any modernization schemes. Military debate increasingly dominated by imminence of "hollow years," 1935–1939, during which time conscript classes would fall drastically owing to wartime (WW I) low birthrate. Number of conscripts such that army would be 100,000 men under strength on average during these years.
Bilateral Relations	French Empire: Quiet, but long-service soldiers earmarked as mobile forces to respond to imperial emergencies as in 1925–1926, leaving defense of France potentially in hands of short-service conscripts unleavened by professionals.

Table 7

FRENCH PLAN D

Dates	1933–1939.
Purpose	To secure France against an attaque brusquée and to mobilize the greatest possible number of effectives as quickly as possible against a German attack or Italian threat.
Threat Assessment	German rearmament evident after 1934.
Concept of Operations	Defensive but employing a larger number of specialized fortress and mechanized troops. To provide for considerable tactical flexibility while maintaining a strong couverture, which could be reinforced depending upon the degree of danger. Included provisions for recall of all immediately available reserves and of first elements of the second-line reserve. Maginot Line stronger, and mobile forces available in peacetime to move to aid of Luxembourg and Belgium.
Available Forces	Couverture consisted of 11 infantry divisions in northeast and five in southeast; with 52 NE and 13 SE on full mobilization. Two-year service restored, 1936. Three light mechanized divisions (DLMs) available by 1939.
Geostrategic Context	Rhineland remilitarized in March 1936. Siegfried Line under construction from 1938 onward.
	Belgium: Denounced military agreement of 1920 in March 1936. Declared neutrality in October. Staff contacts continue.
	Britain: Inconclusive staff talks in March 1936. Possible commitment of two divisions on left of French army in operations involving Belgium.
	Soviet Union: Alliance 1935. No staff talks until 1939.
	Poland: French reject Polish proposal of preventive war in 1933, and Poles sign nonaggression pact with Germany, 1934.
	Italy: Ethiopian War, 1935–1936. Threat of war, buildup of Italian forces in Libya, of air force and navy in Mediterranean. Italian formations in Spanish Civil War, 1936-1939. Italians align with Germany after 1935, Anti-Comintern Pact in 1936, "Pact of Steel" in 1939. Talk of colonial, frontier claims, 1938.

immediately raising the stakes of any projected response. Graduated levels of mobilization proved to be a politico-strategic cul de sac. The price of security, then, was that only something resembling a general mobilization could permit the French to respond, so that any military response cast France as the aggressor in the eyes of a European public accustomed to recalling the successive mobilizations of August 1914. Precisely this happened in March 1936, when a rapid concentration of the couverture using requisitioned civilian transport was envisaged. It was unhelpfully pointed out by the military itself that the League of Nations had determined that the first state involved in a quarrel to resort to commandeering its citizens' trucks and cars was ipso facto the aggressor.[9]

French military intelligence also chronically overestimated German rearmament, both before and after Hitler, as Fig. 6 shows. Members of paramilitary bodies like the Nazis' stormtroopers, the S.A., and veterans organizations such as the Stahlhelm were rated as equivalent to trained reservists. Similarly in 1935, it estimated that Germany had 700,000 effectives, twice the real number, most of whom were new recruits. Those with experience were dispersed in training cadres.[10]

In any event, the French military concluded as early as 1935 that no preventive war could be fought against Germany, so rapidly and so effectively had Germany rearmed. An estimate of the French cumulative force buildup, shown in Fig. 7, helps illustrate part of the French dilemma.

Plan D (which should not be confused with the wartime Dyle Plan) did make use of the increasing number of motorized infantry divisions and DLMs available from 1933 onward. It incorporated the seven motorized infantry and the first DLM in a mobile reserve under the commander-in-chief. The principal use to which its new formations were to be put, however, was to push forward into Belgium south of Liège, i.e., through the Ardennes. Figure 8 illustrates the limited nature of Plan D's commitment to defending France's ally.

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[9]Kenneth Strong, *Men of Intelligence* (London, 1970), pp. 44–45.

[10]D. C. Watt, *Too Serious a Business* (Berkeley, 1975), p. 93; see pp. 42, 48, and 55 for other examples.

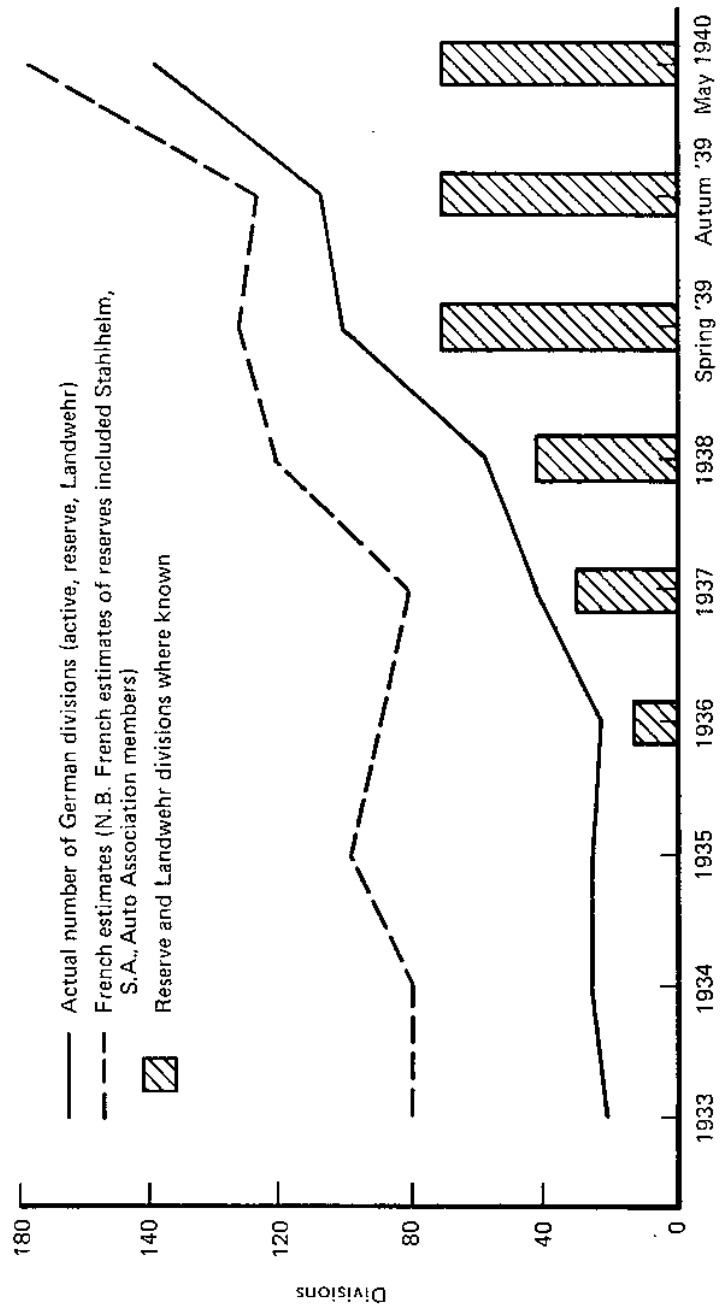
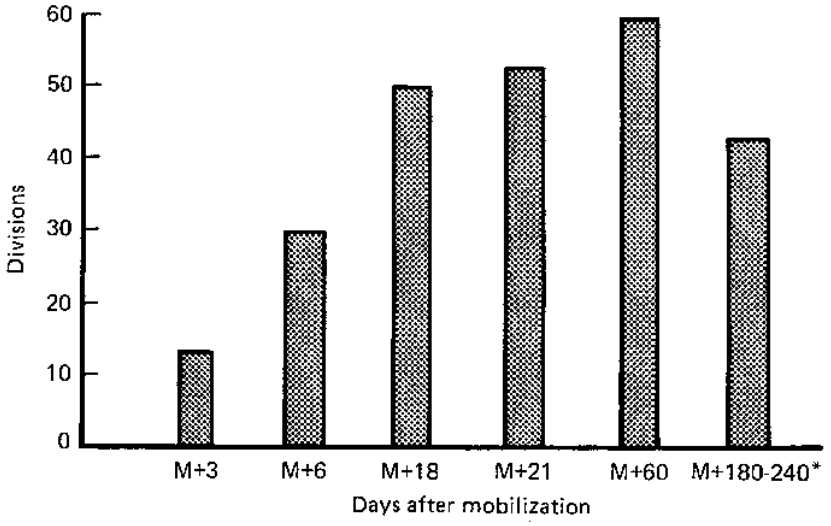


Fig. 6—French overestimates of German army size, 1933–1940



*The British estimated that the French would have to disband divisions to maintain war production.

Fig. 7—French cumulative force buildup under Plan D (as estimated by British Military Intelligence, 1936)

FRENCH AIR PLANNING

French Air Doctrine

The French air force never developed plans for its independent employment. French air doctrine tied the air force to the army, specifically to fulfilling a variety of tasks likely to arise in a prolonged war fought along a continuous front.[11]

The French air force acquired its ministerial independence only in 1933, and its control remained in the hands of the overall French Commander-in-Chief. His staff drew up plans, which the head of the air force executed. At the tactical level, ground commanders all the way from division level upward commanded air formations dubbed

[11]The following is based on Robert Young, "The Strategic Dream: French Air Doctrine in the Inter-War Period, 1919–1939," *Journal of Contemporary History*, Vol. 9 (October 1974), and Col. Pierre Le Goyet, "Evolution de la Doctrine D'Emploi de l'Aviation Française entre 1919 et 1939," *Revue de l'Histoire de la Deuxième Guerre Mondiale*, No. 75 (January 1969).

brigades, divisions, and corps, using them for local purposes. Each was understood to operate within a specified distance from the front, viz., corps aircraft flying from a range of 10–15 km from the front and army reserve aircraft flying from 50 to 200 km. Effectively, the roles of aircraft were understood to be those of observation, of bombing, of protection for aircraft engaged in those missions, and of defense against enemy aircraft attempting those same missions. Bombing, in this context, meant serving as very long-range and well observed artillery, disrupting the enemy's strategic rear: lines of communication and supply dumps.[12]

French Aircraft

This doctrine arose in the twenties, when French aerial hegemony in Europe was undisputed, and just as aircraft from the postwar period remained so did the thinking behind it. In 1933 three-quarters of first-line aircraft were multipurpose, army cooperation planes. The multiple roles, each defined with Cartesian precision, multiplied by different command levels, contributed to a multiplicity of aircraft. The profusion of aircraft types also grew out of the fragmented, small-scale French aircraft industry, whose production lines remained at the artisanal level. These results guided production of the all-purpose aircraft known as the BCR, an acronym for the French bombardement-combat-renseignement (bomber-fighter-observation). The French constructed the two-engined, twin-turreted BCRs between 1933 and 1936, pursuing a policy similar to the British use of the same basic fuselage for modified versions for the same roles. The French differed only to the degree that they expected the BCR to be readily modified in the field, with armament being replaceable by bomb racks. Without its being admitted, the BCR represented an effort by the fledgling French air force to obtain an independent bombing force in spite of the army as well as an attempt by the government to forestall any possible disarmament convention that might hamper aerial hegemony.

French Air Planning in Transition

The same year the BCR first went into production coincided with a shift in plans by which the air force targeted the infant Luftwaffe's ground infrastructure, airfields, and factories as a first priority. The French themselves expected the Luftwaffe to stage such a devastating blow at the outset of any war, striking at French aviation factories

[12]Richard Griffiths, *Pétain* (New York, 1972), pp. 142–149. Pétain was Inspector-General of Air Defense from 1931–1934.

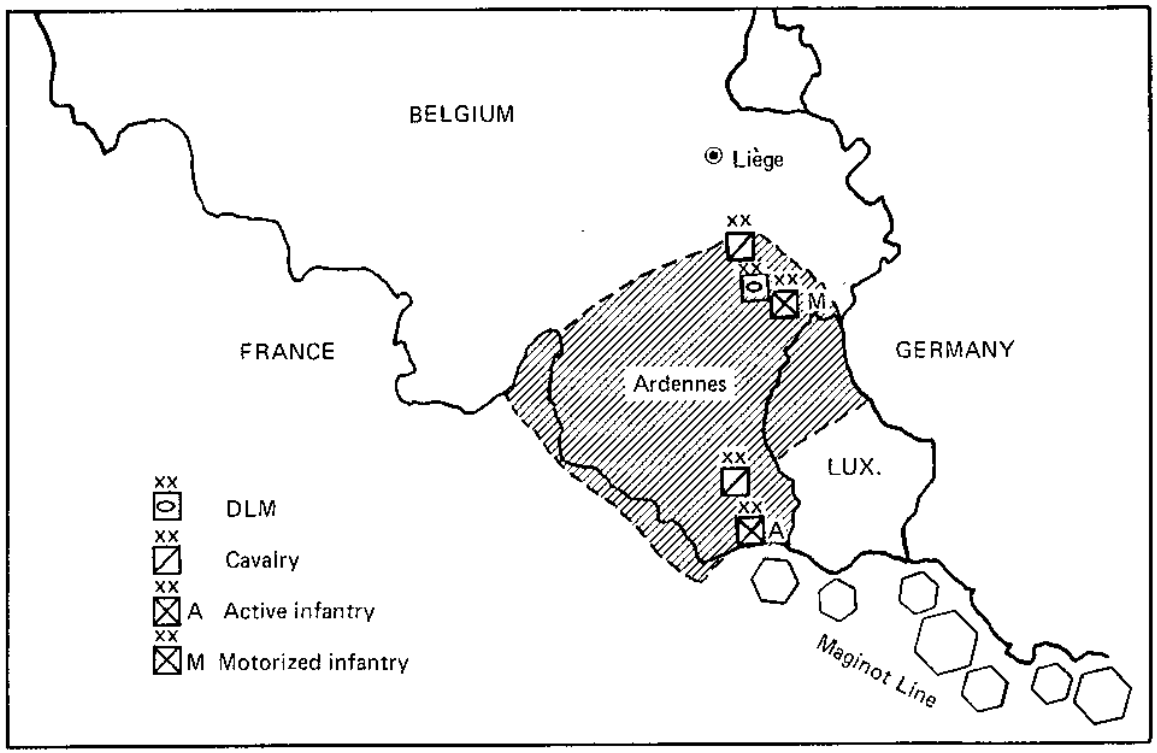


Fig. 8—Advance into the Ardennes in French Plan D

centered near Paris and at the army's mobilization. Fighters and observation aircraft were detailed specifically to meet the latter threat.

French fears of such an aerial attaque brusquée began to reach the proportion of similar British fears from the mid-thirties onward, even though a sudden land invasion remained the prime strategic worry at the highest levels. The first task of the air force, accordingly, was to protect the army's mobilization. Four bomber brigades were concentrated in the northeast in 1936, and targets were ranked in priority as:

1. Air bases,
2. Ground forces, and
3. Strategic bombing reprisals.

Still, by late 1937 the French government followed the British in redirecting aircraft construction toward fighters, which would defend against a German or Italian "bolt from the blue." Air shows in 1937 and events in Spain showed that Italian and German bombers were speedier than the best French fighters. In the absence of an early warning system, this meant that French skies were virtually defenseless without an immense expansion in the numbers of fighters, which would permit constant air patrols over vital French airspace. An independent fighter command had been established the previous year, with the initial wartime role of covering the army's mobilization, as always the first concern of the air force. These developments combined to shape French aerial rearmament toward producing defensive fighters. In terms of this role, French fighters were highly maneuverable but slower than contemporary German or British craft.

French Air Doctrine on the Eve of War[13]

The French inferred from Japanese tactics in China and from Axis bombing of urban centers closer to home in Spain that this danger was not overdrawn, but the prospect of German dive-bombers being used in close support of a swift-moving land attack did not receive similar attention. With their own interest in tactical support of land forces, the air force concluded that the technical problems of accurate bombing in the face of moving, heavily defended targets would limit this function. The notion of a protracted conflict, a siege war of nation against nation, held. This suggested that the air force might have an independent role after all, for it was the one fighting service capable of

[13]Jeffery Gunsburg, "Armée de l'Air vs. The Luftwaffe—1940," *Born in Battle: Defence Update International*, No. 45 (1984).

strategic maneuver. But time ran out for France before its first strategic bombers were available in sufficient quantities.

French aerial planning, then, less a strategy than a stance, assigned the air force an indefinite role subordinate to the army, to whom as always fell the principal role of defending France's land frontiers. As the army did not plan offensive operations, the air force had no reason to do so and powerful political reasons not to.

Bombing. When the French and the RAF began to discuss aerial operations in early 1939, the French airmen could only propose that aircraft be concentrated wherever the most decisive results could be obtained. This meant tactical bombing of field depots or of German troops on the march, aiming to hit them in locations that could become bottlenecks, such as Belgian villages (taking care to minimize civilian casualties so as not to provide the Führer with a pretext for bombing France's defenseless cities) or bridges on the Meuse or the Albert Canal. Targets specifically ruled out for fear of collateral casualties were railroads and bridges east of the Rhine. West of the Rhine, however, was a war zone where such restraints did not apply.

Fighters. Defensively, too, the air force remained tied to the army's tactical needs. There were no plans for maintaining control of the air at all times, only at such times as the army's operations required it. The principal role assigned to fighters during the Phoney War was escorting observation aircraft. So important was observation that the best pilots were assigned to that role. Their losses were high as they flew inferior aircraft; less experienced fliers flew the air force's handful of modern fighters.

A powerful constraint on French planning, however, was the air force's lack of modern fighters, antiaircraft weaponry, and warning systems. Estimates of both the capabilities and quantities of German aircraft reinforced this caution.

Overestimating the Germans. The French were handicapped in this by a serious intelligence failure—a continuing overestimate of German strength, which led successive governments to scotch all talk of an air offensive and to concentrate on defending the capital from a German strategic bombing offensive. One of the chief reasons the French opposed any premature resort to strategic bombing was the fear that the Germans would promptly and decisively obliterate France's none too efficient aircraft industry, centered near Paris, thereby removing one principal obstacle to Germany's eventual victory. The head of the

air force in 1937 forecast that the Germans could wipe out 64 percent of the French air force within the first two months.[14]

Lessons of War: From the Vistula to the Meuse

A question that went by default was whether, in the absence of army plans to take the offensive against Germany in defense of Czechoslovakia or Poland, the air force might carry out a bombing offensive. But, since the air force had no independent mission and no heavy bombers, that issue did not arise.

France's strategic bombers, a scant 50 in 1940, remained as a kind of strategic reserve, a role reflecting the air force's continuing subordination to the army. There was no central reserve of fighters or light bombers that could be shifted to deal with breakthroughs or sustained enemy offensives. True to the notion of a prolonged war, a large proportion of the air force was kept from employment in the conflict so as to provide training units for the future or was assigned to other sectors. Other fighters defended strategic targets, which in the absence of radar meant near-constant air patrols, a use especially uneconomical of both pilots and fighters. As six squadrons were required if one was to be aloft all the time, the French air force could secure only selected areas at all times.[15]

The advent of war did not substantially change prewar planning, although combat over the western front revealed the limitations of French aircraft, reinforcing the caution that already was so great. French observation aircraft suffered heavy losses, and the Luftwaffe exacted a heavy toll among the best French first-line fighters.[16]

When plans for an advance into Belgium in the event of a German invasion of the Low Countries were agreed to in November 1939, the role of the air force's fighters was limited to covering the advance of ground forces, while bombers were to retard the German advance in the manner already discussed. If possible, they were to hit German airfields, but the French doubted the utility of striking at these, which were sufficiently numerous that disabling a few would not materially lessen the Luftwaffe's effectiveness. German defenses were so good that losses would be prohibitive. Again, actual fighting confirmed the wisdom of this, revealing that French bombers were so slow as to be defenseless against flak in the daytime, so their use was to be limited to the night, effectively negating their hopes of supporting the army.

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[14]Young, *In Command of France* op. cit., p. 198.

[15]Gunsburg, op. cit.

[16]Guy Chapman, *Why France Fell* (New York, 1968), p. 71.

III. BRITISH PLANNING FOR WAR IN EUROPE

BRITISH NATIONAL STRATEGY

Britain's sole European obligation, the Locarno Pact of 1925 by which it guaranteed French and Belgian territory, did not lead to any planning or even any promises of military aid. Planning, armaments, and readiness were governed by the "Ten-Year Rule," which stated the British planning assumption that there would be no major war for ten years forward.

British rearmament, which can be said to have begun in 1933, aimed not to fight another continental war but to deter it, by being able to respond with a devastating bombing counteroffensive. In effect, this strategy meant that the British war plans that guided rearmament focused primarily on the bomber deterrent, secondarily on measures of defense against a bombing attack. It being assumed that Britain could win only a long drawn out war and that Germany could win only an abbreviated conflict, then a Britain capable of withstanding a shock attack and with its economy intact could persuade Hitler never to risk war, for a long struggle Germany could never win, as World War I had demonstrated.

Like the French, British planners envisaged a three-stage conflict: an initial blow, a stabilization of fronts and, finally, the buildup of massive Allied resources while Germany, cut off from the world economy, withered and finally succumbed to a victorious counteroffensive. The key to ultimate victory then lay in maintaining economic stability, for the economic weapon would triumph in the end. Planning sought to prepare for this sort of conflict. Table 8 shows the constraints within whose limits British planners prepared.

BRITISH ARMY PLANNING

Structure and Function

The British army in the interwar years remained as before the war a long-service volunteer force to provide the colonial garrisons the British Empire required. Half the regular army's 136 battalions remained at home, serving as depot units for the other half that at any time was stationed in India, Egypt, Palestine, or elsewhere. Until German re-

Table 8

FACTORS INFLUENCING BRITISH PLANNING

Year	European Diplomacy	World	Empire	Armed Forces	Germany	Plans
1919	Versailles Treaty	Intervention against USSR	Afghan War; Indian unrest	Demobilization; volunteer army		No plans for European war
1920			Mesopotamia rebellion			
1922		Near war with Turkey	Egyptian unrest			
1923				10-Year Rule (military spending/ plans based on "No European war for 10 years hence." Sliding assumption.)		
1924						
1925	Locarno Pact					
1926						
1927		Shanghai uprising				
1929			Arab revolt (Palestine)			
1930			Indian unrest			
1931		Japanese invade Manchuria				
1932				10-Year Rule scrapped		

Table 8—continued

Year	European Diplomacy	World	Empire	Armed Forces	Germany	Plans
1933	Hitler Chancellor					
1934	Germany quits Disarmament Conference and League			Rearmament begins	Germany targeted as greatest enemy	First plans to defend Low Countries
1935	Ethiopian crisis				Anglo-German naval agreement	Air plans dominated by deterrence
1936	Rhineland reoccupied; U.K. staff talks with French; Anti-Comintern Pact poses 3 front dilemma		Northwest Frontier fighting; Arab revolt (Palestine)			
1937		Japanese aggression against China		Army reoriented for eastern theater		Air planning envisages defense against bombing; strategic bombing plans (Western Air plans)
1938	Czech crisis			Munich Pact		
1939	Guarantee to Poland; U.K. staff talks with French			Conscription; territorial army doubled		

armament became obvious after 1930, the army's focus was on fighting "small wars" against uncivilized opponents.

Britain's army did retain on paper an expeditionary force (BEF), essentially those units, less the Guards, which remained in Britain. In the late twenties, this amounted to five divisions, three of which could be sent overseas on short notice. But this "rapid deployment force" of its day was for use in any number of contingencies in the empire or in the mandates and least desirably for service in Belgium on the left flank of the French army as in 1914. Hence, its units remained those of a general-purpose army.

In addition to its regulars, the British army numbered 14 divisions of the Territorial army (TA), formations roughly equivalent to the American National Guard and understood to be the basis for wartime army expansion. Increasingly, these civilian soldiers came to be seen as best suited for air defense, manning searchlights and antiaircraft artillery and maintaining civil order in the aftermath of the horrific air raids expected in a future European war.

As Britain commenced to rearm in 1933 and targeted Germany as the primary foe, the army could perhaps raise one or two divisions out of battalions at home. After six months of war, another two infantry and one cavalry divisions in addition to a tank brigade could be sent over.

Planning, 1934–1936

Tentative war planning in 1934 for a war against Germany focused on the defense of the Low Countries. Possession of landing grounds in the Low Countries, it was estimated, increased by 80 percent the results of any German air attack on Britain compared with what could be achieved from German bases.[1] Figure 9 shows the additional British territory that German control of the Low Countries brought within range—virtually all of industrial Britain. Yet the army had no plans to employ the BEF in coordination with the French and no idea of their plans. Consequently, the BEF's actual role remained uncertain and its plans only hypotheses. The BEF's role might be either defensive or offensive, perhaps making a flank attack on any German advance. Perhaps Antwerp would be its base, perhaps the Ardennes its sector. The staff's concern, and the basis for such planning as did take place, was simply to get the BEF to its concentration point. Until 1939, war plans remained at the level of strategic generalities, as did staff

[1]"The Potential Air Menace to This Country from Germany," Memorandum by the Chief of the Air Staff, June 12, 1934, COS 341, CAB 53/24.

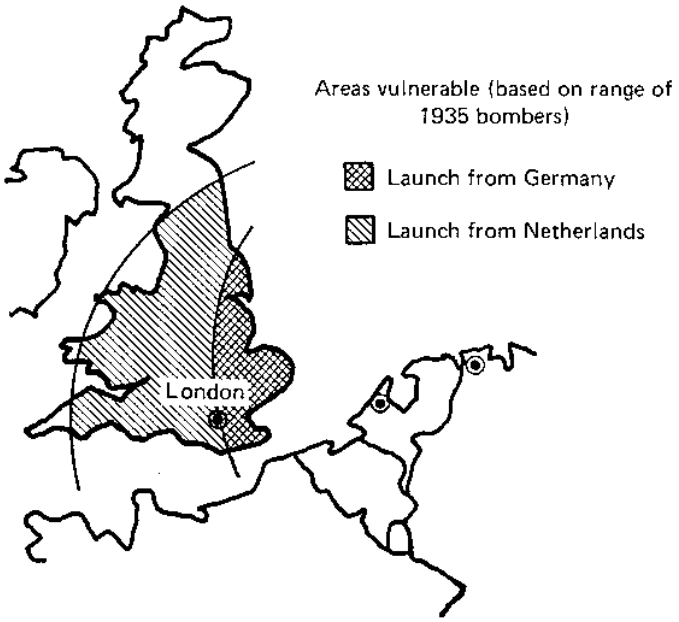

Fig. 9—The vulnerability of Britain to air attack

contacts with the French and Belgians. Figure 10 shows the most widely canvassed hypotheses: forming the hinge between the French and Belgian armies, as in 1914, or going directly to the relief of Antwerp.

This was out of concern for the diplomatic situation Britain faced. A policy of aiding Belgium carried fewer political risks than one of aiding France. In popular mythology, direct staff talks with the French had dragged England into war in 1914. Ministers shied away, however, even from such a commitment to Belgium, refusing a Belgian request during the summer of 1934 that Britain strengthen the Locarno Pact by agreeing to go to war automatically if Belgium were invaded. Such an explicit guarantee, it was feared, would lead inexorably to a French request for staff conversations. News of these would leak, breaking down the political base for diplomatic solutions. Thus, realistic plan-

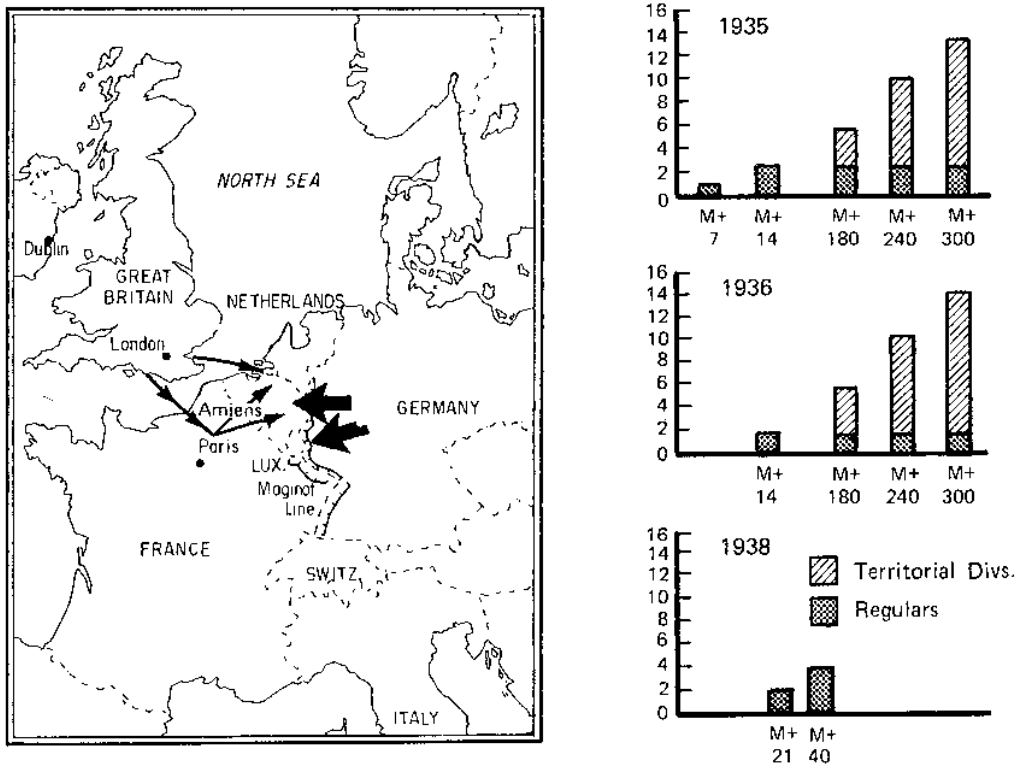

Fig. 10—Possible roles for the BEF, 1934–1939

ning for security would divide Europe into two hostile camps, precisely what had produced World War I.

British military planners at this date correctly predicted that the immediate aims of the new Nazi regime were rearmament, followed by expansion to the east, thus making any attack on France and the Low Countries both unlikely and counterproductive from the German point of view. If Germany went to war to rectify its eastern frontiers, it would undoubtedly remain on the defensive in the west, and the BEF would hardly matter.[2] In any event, the effect of the BEF would be primarily moral in war while knowledge of its mission might deter Germany from aggression aimed at seizing landing grounds in the Netherlands or Belgium.

By 1935, the British Chiefs of Staff (COS) in the wake of the Ethiopian crisis agreed that the army should be prepared for a prompt intervention in the Low Countries—within 1–2 weeks. Precisely, the mobile division (at this time cavalry) and the air defense brigades would be disembarked within a week, and the two infantry divisions would follow within another week. The army expected to supplement the BEF with successive four-division contingents of the TA arriving six, eight, and ten months after mobilization. Thus, within the first year, the British presence on the continent would consist of four regular and 12 TA infantry divisions with a cavalry division and a tank brigade.[3]

As the pace of German rearmament greatly surpassed Britain's, it appeared to the military in Britain at the end of 1936 that even a larger (five division) BEF such as would be available after 1937 would be no deterrent without adequate reserves. Unless properly equipped, the 12 notional TA divisions and the British army had little value. If the TA were to provide successive reinforcements for the BEF, then vexatious political and financial issues had to be faced, something the government shrank from. To prepare the army against Germany meant providing a far higher standard of equipment and armament, and this raised the question whether Britain was getting best value for the money thus spent.[4]

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[2]For example, untitled appreciation of February 4, 1936, WO 190/384; Chiefs of Staff appreciation, October 12, 1933, COS 310, CAB 16/109.

[3]"Defence Plans for the Event of War against Germany," Provisional Report of the COS Joint Planning Sub-Committee, October 2, 1935, COS 401, CAB 53/25.

[4]Brian Bond, *British Military Policy Between the Two World Wars* (Oxford, 1980), pp. 237ff.

Strategic Uncertainties

This question, in the context of the expectation that the next war would be brief, practically invited civilian policymakers to question whether the army was the best deterrent against such an attaque brusquée and whether the army could practically fulfill even its tactical mission of denying the Low Countries to the Luftwaffe. The case against the army's ideas argued that Britain could not deploy an army for the continent rapidly enough to save Belgium. Given Britain's scarce resources and the paramount need to maintain financial stability for waging a long war, the sums available for defense were best used for rearmament in the air, not for maintaining an army on par with that of the French or the British army of 1918.[5]

Germany's reoccupation of the Rhineland in March 1936 did not materially affect British war planning, but it did lead to renewed opposition to any kind of a continental commitment. Hitler's coup had not surprised the British government, whose military advisers discounted its strategic effect. Mainly as a political sop to the French, the government did approve very limited staff conversations that concentrated on administrative measures for transporting the BEF to France. There was no disclosure of plans or effort to learn French plans, although the British at this time expected the French to advance into the Rhineland in any European war.

Still, the British army's idea was to dispatch the two-division BEF to the continent at M+14. Because of Italian hostility, tanks and the army's antitank weapons would remain in Egypt to guard against the heavily mechanized Italian forces in Libya.[6]

As for actual European plans, the general staff refused to speculate beyond hypothesizing and evaluating three possible roles:[7]

1. Occupying a sector of the western front between the Belgian and French armies was unwise in that it meant operating too far from the sea and home bases.
2. Forming the left flank of the Belgian army even though this deprived the BEF of some of its freedom of action.
3. Remaining in reserve behind the Belgians, an option that maximized flexibility while securing Britain's historic interest in the Low Countries. The British estimated in the spring of

[5]Michael Howard, *The Continental Commitment* (London, Pelican edition, 1974), pp. 115–117.

[6]"Appreciation of the Situation in the Event of War against Germany in 1939," October 26, 1936, COS 513 (JP), CAB 53/29.

[7]"The Situation in the Event of Unprovoked Aggression by Germany Arising Out of the Present Crisis," April 29, 1936, COS 460 (JP), CAB 53/27.

1936 that since the Germans had only 29 infantry and three armored divisions they would defend with 16 on the Rhine, leaving the remainder to guard the east. The British expected the armor to remain in reserve.

Intelligence believed that the French planned to concentrate 26 divisions behind the Maginot Line from Belfort north to Besançon, maintaining another 16 in reserve near Laon-Châlons-Troyes. A final nine divisions would be dispatched into Belgium, unless prevented by Italian hostility. The French, mindful of British concerns, shrewdly made the dispatch of eight divisions into Belgium contingent upon Britain's sending an army to the continent.[8]

The staff talks bore fruit in one respect at least; the British Chiefs of Staff recognized the full extent of French weakness, concluding that Germany by reoccupying the Rhineland had neutralized France's entire alliance system, since the French army could not wage a full-scale war of national effort unless French territory was directly invaded. Demographic constraints meant that France could not simultaneously maintain its planned wartime army of two million (56 divisions) without sacrificing both its industry and its agriculture. Without some relaxation of American neutrality legislation, the French might not be able to maintain an army of even 40 divisions. The somber conclusion that emerged was that French strength would peak at M+18, when the first reserve (20 divisions), the actives (20 divisions), and six colonial or North African divisions permitted the French to field 46 divisions. Apart from the initial echelon of the BEF, the British contribution would not be felt until after 6–9 months of war. The lack of rapid effects was another reason to give the air force priority.[9]

Ambivalence about the army's continental role also reflected the deteriorating British position in the Mediterranean. Tensions arising from the Spanish Civil War (which began in July 1936) and Italy's intervention in that conflict raised the prospect that the Suez Canal might be threatened from Italian Libya, so that the tank brigade, Britain's sole armored force, was stationed in Egypt. Other imperial emergencies followed, sapping strength:

- **Palestine.** An intractable Arab revolt beginning in 1936 steadily required reinforcements, so that by the time of Munich (1938) two division-equivalents were assigned there to internal security duties.

[8]Ibid.
[9]Ibid.

- **India.** Similarly, prolonged unrest on the Northwest Frontier from 1936 onward tied down three Indian division-equivalents at its height in 1938–1939. This meant that planned Indian army reinforcements for Egypt or for Malaya could not be taken for granted.

Then, too, there was the danger of war with Japan, which meant sending the Mediterranean fleet east, in effect abandoning the Mediterranean apart from its outlets at Gibraltar and the Suez Canal. The responsibility of protecting the Canal fell to the army. Because Britain faced a war with three potential enemies united after 1936 in the Anti-Comintern Pact (Germany, Italy, and Japan), its naval forces were stretched beyond their limits. The Admiralty, for this reason, attached great importance to maintaining the 1935 Anglo-German Naval Agreement, which limited the German fleet to 35 percent of Britain's tonnage, thereby giving a small respite. The Admiralty persistently argued that staff conversations with the French would give Hitler the occasion to denounce this pact.

Limited Liability, 1937–1939

These conditions formed the backdrop to the military strategy of Neville Chamberlain's government from 1937–1939, which rigorously denied Britain's continental role. This stemmed also from renewed sentiment in the recession of 1937–1938 that as rearmament was imperiling financial stability, "the fourth arm of defence," priorities had to be reassessed. And reassessed they were. The Cabinet late in 1937 identified four defense priorities: the security of Great Britain—especially from air attack; that of imperial communications; that of overseas possessions; and cooperation with any allies. In terms of the army, this ranked four roles in the following order: antiaircraft defense at home; maintaining colonial garrisons; preparing the BEF for "an eastern theater," i.e., Egypt; and preparing it for northwestern Europe.

So it was that in 1938 the regular army was reoriented toward Egypt and the TA toward air defense.[10]

During the spring of 1938, the BEF's initial component was reduced from four infantry and one mobile division within M+15 to two infantry divisions within M+21 followed by two more within M+40. Significantly, the BEF was to be outfitted for service in Egypt, meaning fewer tanks, artillery, and ammunition would be required, a neat way of cut-

[10]Bond, op. cit., pp. 243, 248–250. Norman Gibbs, *Grand Strategy*, Vol. I (London, 1976), pp. 465–482.

ting one's coat to fit one's cloth.[11] As war over Czechoslovakia threatened that spring, the most substantial force Britain could afford for the continent was two divisions within M+14 but with no second echelon, let alone any further contingents of territorials. These two regular divisions lacked all modern equipment and were of no offensive value in the general staff's estimate.[12]

By 1938, the army recognized that the French were incapable of any large-scale offensives, a military strategy that the British opposed in any event. One aim of the renewed attaché-level conversations authorized that spring was to clarify just how limited the British contribution would be, both in terms of units and scale. Western Europe, not Czechoslovakia, would be their focus. Chamberlain himself favored limiting the BEF's role to safeguarding the communications and bases of the Advanced Air Striking Force of the RAF. Detailed discussions followed, limited significantly to transportation, with no reference to concentration areas or the BEF's actual role, as that implied a commitment to a French operational plan.

Even after the talks in Paris, British planners remained ignorant of French strategy, although guessing correctly that initially the French would remain on the defensive in view of the Siegfried Line's purported strength. The army expected that Germany, having learned from World War I the dangers of a war on two fronts, would begin any war over Czechoslovakia by attacking either England or France, a judgment that served to support the Cabinet's preoccupation with Britain's defenselessness in the air.

The European Balance of Power Rediscovered, 1939

Although military planners had not taken Czechoslovakia's resources into account before the Munich settlement, the general staff by year's end realized that the European strategic balance had shifted, and that France now required a British contingent, as did Belgium. The very strength of the Maginot Line virtually guaranteed a German violation of Belgium, and without British help the French might no longer help the Belgians. The result would be Germany's holding bases from which it could effectively bomb Britain and threaten British use of the Channel. The moral effect of a British commitment would reassure the French and ensure that they did not desert Belgium. Indeed, the moral

[11]"The Role of the Army," 8 February 1938, DP(P) 16, CAB 16/82.

[12]"Military Implications of German Aggression against Czechoslovakia," COS 697 (JP), 19 March 1938, CAB 53/37.

effect of Britain's refusal to commit substantial forces might be for France to go it alone.[13]

The danger lay in possible French reluctance to go to Belgium's aid without a British contribution, and with this fear uppermost the Chiefs of Staff endorsed serious staff conversations with the French early in February 1939. The neutral Belgians refused to join. If the purpose of these talks was to buck up the shaken French, then the British revelations were none too heartening. Not until early 1940 at the earliest would the British have more than two infantry divisions for the continent, and not before September 1940 would two armored divisions be available. The British conferees still refused to commit the TA.[14]

Rumors early in 1939 of a German takeover of the Netherlands shook the government, and Germany's absorption of Czechoslovakia in March utterly changed the Chamberlain Cabinet's outlook. As it rushed to guarantee Rumania and Poland, so it precipitately doubled the size of the TA to provide reinforcements for the BEF and round-the-clock manning of air defenses at home, while instituting peacetime conscription in April. This created an army on paper of 32 divisions, not quite Haig's army of 1918 but a complete reversal of policies held steadfastly less than a year earlier.[15]

Simultaneously, the British offered a BEF whose initial contingent would be four divisions by M+33 and dangled additional TA contingents before the French without committing them to any theater. By the end of April the Chiefs of the Imperial General Staff (CIGS) promised the French that all 26 TA divisions would be sent over within M+12 months.

As the two allies contemplated the German threat, considerable agreement emerged. They saw the Germans striking through the Low Countries in the same fashion as 1914 but aiming to seize landing grounds to bombard British and French targets. The main German thrust would be through the Aachen Gap. A parallel advance though the Ardennes would cover the flank, a remarkable anticipation of the German plans developed in late 1939. A total of 40 infantry divisions, perhaps with armor, would be involved.

The Allied planners observed that the Low Countries were favorable to defenders. Bombing fuel dumps likely to be used by the Germans would dislocate the advance, reducing even mechanized columns to a

[13]Gibbs, op. cit., pp. 492–502.

[14]Gibbs, op. cit., pp. 668–669.

[15]Peter Dennis, *Decision by Default* (London, 1972), chaps. 10–11.

foot pace. Demolitions and inundations would accomplish much, even though a rapid attack might bypass them.[16]

French and British planners alike expected Germany to deal with Poland first to avoid having to fight on two fronts. The Chiefs of Staff viewed it as absolutely essential to ensure that Germany remained fighting a two-front war, so it could not turn on the Western Allies with its full weight. Still, even if Poland were overrun, they forecast accurately that some 40 German divisions would be tied down in garrison duty or guarding against the Soviet Union. The only plans the French offered were to carry out well-prepared but limited offensives that aimed to wear down the German army while tying down as many troops as possible in the Siegfried Line. The Allies' first major offensive, the French insisted, would have to be in the south, somehow against Italy, an option that displeased the British.[17]

The unspoken strategic assumption of Soviet-German hostility vanished in August, and war came only days later.

BRITISH AIR PLANNING

British Air Doctrine

Until 1938 British thinking on the employment of the air force in a European war turned on a concept of deterrence. It was assumed by civilian and military strategists that a future war would begin with an attack on the metropolis of London, with results similar to those depicted in the contemporary film *The Shape of Things to Come*. Officials and politicians expected bombing to result in something approaching a total breakdown of public order if not the complete loss of social cohesion.[18] Less apocalyptically, it was agreed that the psychological effects of bombing or fear of bombing did more to disrupt production than the actual damage inflicted. The "father of the RAF," Lord Trenchard, rated the moral effect of bombing over the material damage done at a ratio of twenty to one. Nor could any defense prevent this. Trenchard and some of his acolytes took the extreme view that fighters were of no defensive value, and when rearmament began the speed of bombers equalled that of fighters in service.[19]

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[16]"Anglo-French Conferences No. 3," 26 April 1939, Annex 3 to COS 914, CAB 53/49.

[17]Gibbs, op. cit., pp. 672–675.

[18]I. F. Clarke, *Voices Prophesying War 1763–1984* (London, 1970), pp. 166–176.

[19]C. K. Webster and Noble Frankland, *The Strategic Air Offensive*, Vol. I (London, 1961), pp. 54–55, Vol. IV, Appendix 1.

England was uniquely vulnerable to such an attack, with industry and population concentrated in London, also her political center. Extrapolations from German daylight raids in World War I led postwar planners to these conclusions:

- That an enemy air force could maintain "indefinitely" a daily attack of 75 tons, and
- That each ton would inflict 50 casualties.[20]

No warning of or defense against such a knockout blow existed, and the only means by which such an attack could be prevented was if England possessed a strategic bombing force equivalent to the potential German enemy, a concept known as parity.[21]

Aircraft

In practice, and largely to pacify political opinion, successive governments interpreted parity in purely quantitative terms, so that rearmament policy focused on obtaining numerical parity with the Germans. This, and reasons of economy, encouraged concentration on a bombing force of short-range light bombers, easily and cheaply built, potentially adaptable for other roles—including that of fighters in the early 1930s. For example, with appropriate modifications the Hawker Hart light bomber, the mainstay of the RAF's bombers in the early and mid-1930s, served as a fighter (Fury), as an army cooperation aircraft (Audax), and as a general-purpose aircraft in the Fleet Air Arm (Nimrod). The Hart was a biplane with a fixed undercarriage, slower even than contemporary airliners such as the Douglas DC-2. With only a 500-mile range, the Hart could have reached only a few French targets. Based in France, it could reach a few German targets and these only by overflying neutral Dutch and Belgian air space. Its replacement, the Fairey Battle, a single-engined monoplane with a retractable undercarriage, also lacked the range to hit German targets without being based on the continent.

The advantage light bombers offered was that they could fly off grass airfields in eastern England, France, or the Low Countries, which might be their bases of operations. In 1936 the RAF's established bases were in the London area and the south, having been built to shield the metropolis from the presumed French threat of the early

[20]Basil Collier, *The Defence of the United Kingdom* (London, 1957), p. 11; and Webster and Frankland, Vol. 1, op. cit., p. 63.

[21]Webster and Frankland, Vol. 1, op. cit., pp. 66–70, 88–89; Gibbs, op. cit., pp. 539–555.

1920s. As great as these deficiencies were from the standpoint of European strategic bombing, their flexibiity and capabilities reflected the many overseas roles the RAF played and accorded with the instincts of successive governments, which were to avoid European commitments.

Until 1936 rearmament focused on such machines, and only in that year shifted to medium, twin-engined bombers such as the Whitley, Wellington, Hampden, and Manchester. This generation of bombers had the range to bypass neutrals' air space and hit Germany from British bases. Examples of British bomber ranges and payloads are given in Table 9.

Only in 1936 did the RAF see the rationale for the heavy bomber, the four-engined aircraft that became famous as the Halifax, Stirling, and Lancaster. They had the range, capacity, defensive armament, and navigational equipment to reach Berlin, not simply the Ruhr. Their advent reflected the air staff's new view that parity could be a qualitative, not merely quantitative concept, and that a bomber force capable of carrying out truly massive raids could deter without matching the Luftwaffe plane for plane. Figure 11 shows how the new bombers at last made strategic bombing a realistic possibility.

Table 9

BOMBERS OF 1936

Type Bomber	Normal Range (miles)	Payload (lb)
Hendon (heavy)	920	1500
Medium (specifications)	700–800	750–1000
Hind (light)	430	500

SOURCE: Collier, op. cit., p. 32.

War Plans, 1934–1937

British air planning from the mid-1930s focused on countering two possible German strategies, each devastating: (1) an air attack on Britain or (2) a land attack on France via the Low Countries. Because Germany lacked the resources to outstay the Allies, it was expected to opt for the course of action most likely to bring a quick victory. For this reason, an air attack against Britain was the most likely strategy, as it represented a more productive use of Germany's limited resources than a land campaign.

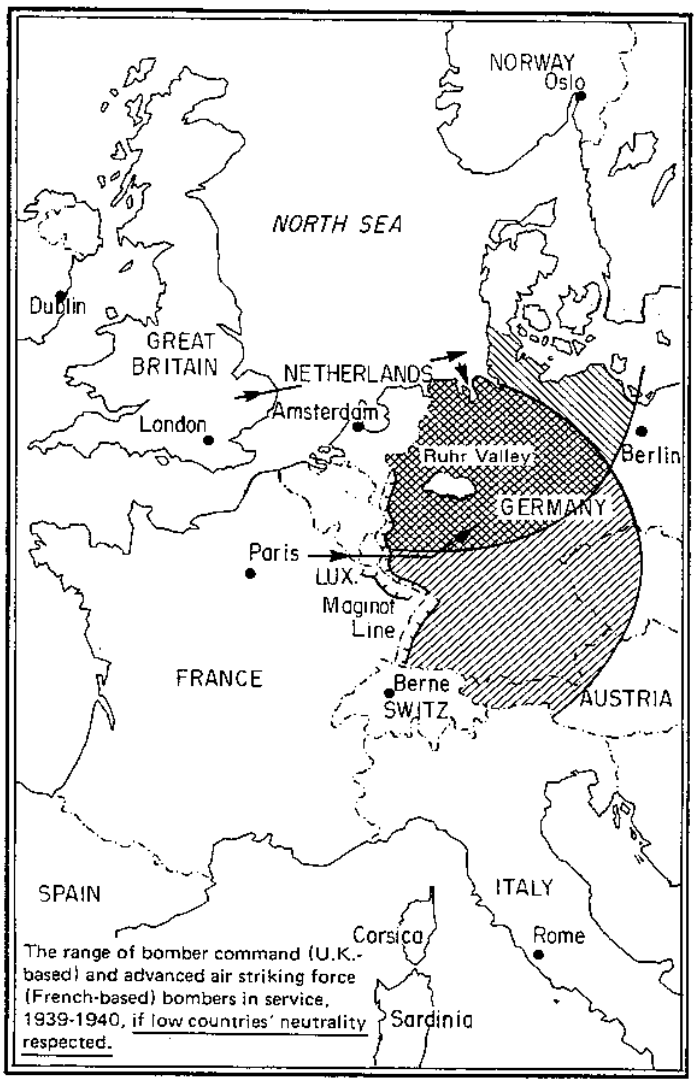

Fig. 11—Range of British bombers

As rearmament began in earnest in 1934, the air staff prepared a bleak scenario of a German air attack on England on such a scale as to win the war within a month. The heavy wastage that an air war entailed meant that the decisive moment occurred not at the outset as a result of a "bolt from the blue" but after perhaps a month when the nation's ability to continue air operations would be tested. A militarized command economy such as Germany's could win a short-term war of attrition in the air through assembling superior reserves of aircraft and trained airmen and through having shadow aircraft factories readily convertible to wartime production.[22]

The air staff in 1934 identified and assessed the following as the likeliest targets of a German bombing offensive:

1. RAF bases—improbable because of their defenses and the difficulty of hitting aircraft dispersed on the ground.
2. Britain's aircraft reserves in London and near Bedford—likely.
3. The aircraft industry in the south and southeast—likely.
4. Whitehall to dislocate the British war effort—possible.
5. The civil population—the most likely of all. London was a target "unequalled in importance and in difficulty of defence." Rather than aiming to kill civilians, the German air offensive would disrupt daily life through the destruction of power stations, gas works, railways, and food distribution.

Because the only available warnings would be from ground observers in England, the RAF's fighters could not scramble to defend any objective less than 50 to 100 miles from the coast. And Britain's most vulnerable targets lay within this range: the three estuaries through which 70 percent of food imports arrived and were distributed, the Thames, Mersey, and Humber; the aircraft industry; the RAF's bases, and London. No standing fighter patrols were possible,[23] as six squadrons were necessary for one to be continuously aloft. The only practical defenses available were to educate the urban working class to bear up under such an onslaught and to improve the system of observation.[24] Radar existed only on a few drawing boards at this time, and serious research did not begin until 1935. Planners subsequently based their appreciations of fighter defense on a national network being complete by 1940. At the time of Munich (September 1938) only one station was operational.

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[22]Webster and Frankland, Vol. I, op. cit., pp. 87–88.

[23]"The Potential Air Menace to This Country from Germany," op. cit.

[24]Webster and Frankland, Vol. 1, op. cit., pp. 89–90.

The Air Staff of 1934 did concede two potentially mitigating factors: If the Low Countries remained neutral, the scale of attack would be greatly reduced, and if France were England's ally, and RAF bombers were stationed in France, then France would absorb a portion of the German attack and reduce the dangers of a knockout blow. (Refer to Fig. 9.) Working from this assumption, the RAF's initial rearmament schemes gave priority to the bomber deterrent, not fighters, and its strategists moved toward establishing a force of heavy bombers able to strike Germany from British bases. Figure 12 shows how deterrence had failed by 1935. Britain could neither defend against an air attack nor deter one.

Strategic Bombing Planning, 1936

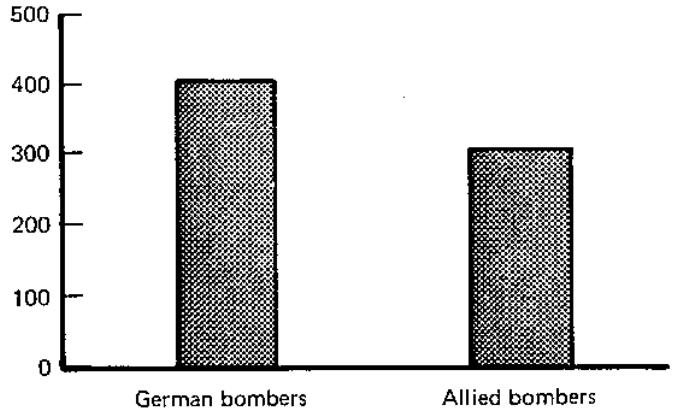
Asked in 1936 to forecast what a war in 1939 would be like, the Air Staff still theorized in terms of a campaign lasting a month. More optimistic than earlier, it predicted that once the initial attack was blunted and the knockout blow survived, fronts would stabilize, and the Allies would build up their resources, as the overstretched and blockaded German economy withered.[25]

Significantly, however, the lodestar of air planning remained the effect of bombardment on the civilian population. Working from the assumption that for each ton of bombs dropped casualties might well reach 50, the growth in Luftwaffe capabilities suggested that 150,000 Britons would be casualties within the war's first week. Attacks on the ports could destroy food distribution and threaten Britain with starvation. The collapse of morale would compel the government to sue for peace. The Luftwaffe, calculated the air staff, could sustain this scale of attacks for at least two weeks.

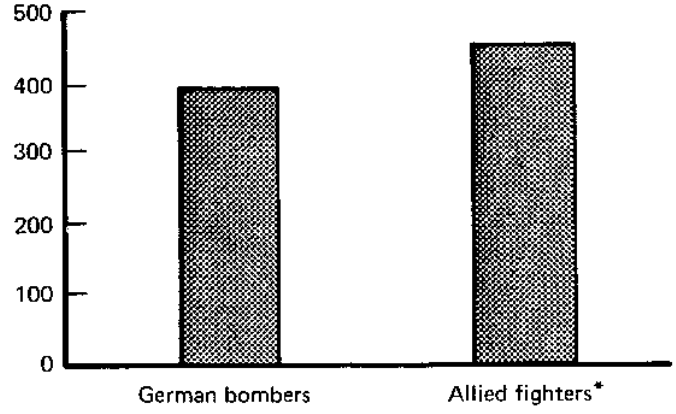
Against this, the staff theorized three broad categories of British objectives:

1. Those affecting German morale, the prospect of which might deter the German air force from employing similar measures against Britain. But against an authoritarian state with a good system of air defense and widely dispersed objectives the RAF could do little to weaken civilian morale.
2. Targets so vital to Germany's war-making capacity that British attacks on them would force the Germans to divert their energies from civil to RAF targets. Yet there were no such readily identifiable targets.

[25]COS 513 (JP) October 26, 1936, op. cit.



The failure of deterrence (1935)



The impotence of defense (1935)

*In the absence of radar, it was calculated that six squadrons of fighters had to be maintained to keep one constantly aloft. This was the only defense against bombers.

Fig. 12—Failure of Allied deterrence and defense against German bombers

3. The Luftwaffe itself, which would directly lessen the severity of German attacks on Britain. This was the optimal strategy by default, for it would be costly, since the German bases would be heavily defended. At best, it might mitigate, but not defeat, the enemy air offensive.

If, however, as the Army and the Navy thought more likely, the Germans' first attack were with land forces against France and Belgium, the RAF's role would be to aid the French army by bombing the German army's communications. This appreciation of October 1936 respected the earlier distinction between two threats from Germany, each with its appropriate response, as represented in Table 10.

When Bomber Command's Air Targets Committee begin systematic targeting in 1936, it was as a subcommittee of the Industrial Intelligence Centre even though it coordinated plans against both civil and military targets. The operative constraints were those imposed by whether Germany chose Britain or France as her first target and those imposed by international law and public opinion.

Of the ten plans sketched in February 1937, three involved naval objectives, such as the Kiel Canal and the German fleet in harbor at Wilhelmshaven. Three concerned the army, and the other four were the inception of the strategic bombing offensive. Planning now passed from strategic generalities to detailed instructions.

Efforts to arrive at true operational plans soon revealed that Bomber Command could neither deter a German attack nor inflict a sustained counterattack on Germany before 1941. The RAF planning apparatus had no idea what was operationally possible, viz., what targets could be reached, what degree of accuracy could be expected in daytime bombing, what damage could be achieved, and what the level of casualties on British bombers would be.

Table 10

AIR THREATS FROM GERMANY AND POSSIBLE ALLIED RESPONSES

German Attack	Allied Air Strategy
Air war directed against Britain aimed at smashing Britain	Strategic counteroffensive
Land attack against Low Countries and France supported by tactical air power aimed at knocking out France	Tactical bombing impossible to plan until nature and direction of attack clear

The Advanced Air Striking Force

Because the bulk of Bomber Command's bombers remained light bombers, a role had to be found for them, and this was as the Advanced Air Striking Force (AASF). As the name implied, the AASF was an arm of Bomber Command. The implacable neutrality of Belgium and the Netherlands required that the old light bombers and even the newer mediums with which the AASF was equipped in 1939–1940 be based in France if they were to operate against Germany.[26]

The dispersal of these bombers in northern France also strengthened their deterrent value, lessening chances that Bomber Command could be neutralized as well as lessening the scale of any such attack on Britain itself.

As conceived, the AASF was a substitute for a British Expeditionary Force; indeed, in the era of "limited liability" of the Chamberlain years, the army contingent's role was to guard the AASF's bases, from which its bombers would hit the German nation. The initial echelon of the AASF would consist of ten Fairey Battle squadrons (i.e., 120 aircraft), to be followed by a second ten squadrons of Bristol Blenheims.

As the British government abstained from any staff conversations with the French until March of 1939, precise planning for the AASF did not take place. Mindful of the political implications of such conversations, the Air Ministry ensured that discussions remained at the level of generalities.

Planning, 1937–1939

As for Bomber Command, three great uncertainties worked against precise planning:

- Over the quality and number of bombers to be available;
- Over the air bases from which they would operate;
- Over the targets against which strategic bombing would be most effective.

The plans that were drawn up focused on identifying the last, reflecting close liaison with economic intelligence while attempting to provide a basis from which to rank a myriad of objectives.

The plans division of the Air Staff produced such a list in October 1937.[27] It comprised 13 W.A. (Western Air) plans, numbered one to 13, and it provided the basis for all subsequent targeting discussions right

[26]Webster and Frankland, Vol. I, op. cit., p. 92.

[27]Ibid., pp. 99–102.

through the war. Table 11 presents an analysis of the three most critical plans. In view of their importance, these three plans received the lion's share of attention in the last remaining years of peace.

The Air Staff calculated, however, that losses would be all out of proportion to the meager damage inflicted. The entire British medium bomber force, in the estimate of the Air Officer Commanding (AOC) Bomber Command, would be eliminated within three and a half weeks, and the heavy bombers would last seven and a half weeks. He recommended that the Air Ministry proceed to construct a long-range fighter, something hitherto ruled out.[28]

Lacking such escorts, Bomber Command would have to operate from France. Not even with a refueling stop in France could British attack bombers reach the Ruhr. In addition, the neutrality of the Low Countries meant that the new medium bombers that would make up two-thirds of Bomber Command's strength in 1939 could not get far into Germany. Moving the medium bombers to France, however, delayed the commencement of the bomber offensive by a month, removing its value in the decisive first month. Lack of rapid results effectively rendered Bomber Command useful only in a protracted conflict.[29] To offset this disadvantage, plans were drawn up to move the AASF to France immediately upon the outbreak of war, so that either tactical or strategic bombing could be undertaken if necessary. Further arrangements were made for the RAF to be able quietly to begin mobilization ten days ahead of any war.

The realization that a strategic bombing offensive was out of the question coincided with an appreciation that Fighter Command would soon have fast, eight-gun aircraft, the Hurricanes and the Spitfires, which could intercept bombers detected by radar, whose first installations were nearly ready. These developments lessened Bomber Command's deterrent role. They further supported the policy of conserving bombers and limiting objectives until technical developments more clearly favored the offense.[30] Chamberlain announced in June 1938 that Britain would bomb only military objectives, and during the Munich crisis of September, Bomber Command and the Air Staff agreed to confine attacks to targets indicated by plans W.A.1 (German air force and aircraft industry) and W.A.4 (war zone communications).

The next air war, it appeared, would be a war of attrition.

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[28]Ibid., p. 95.

[29]Ibid., pp. 99–100.

[30]Ibid., pp. 99–103.

Table 11

BRITISH WESTERN AIR PLANS (1937)

	W.A. 1/6	W.A. 4	W.A. 5
Object	German air force bases. Air industry.	Communications of value during army buildup in precampaign and campaign phases.	Strategically vital industries, railroad system, canals, dams, electricity grid in Ruhr, Main, and Saar Valleys.
Concept of War	Short, one-month air war against Britain.	Orthodox land campaign in Low Countries.	Protracted struggle; war of attrition.
Effectiveness	Low; German air force could disperse, making aircraft and bases secure. Attacks on aircraft industry indecisive in a brief war.	Slight; communications in theater redundant.	Likely to impair vital war-related industries, especially synthetic oil, which could stall entire German army. Ineffective unless Low Countries overflown.
Military Costs	Very high; air force bases heavily defended. Heavy bombers likely to last 7.5 weeks.	High. Fighters and antiaircraft guns numerous. Medium bombers likely to last 3.5 weeks.	6% losses in first two weeks. Long-range fighter needed for conclusive result.
Political Costs	No direct costs; overflying of neutral Low Countries required for full effectiveness.	Heavy if preemptive.	Heavy, especially if first. If not, scale of civilian casualties still likely to be great. Overflying neutral Low Countries needed for maximum effectiveness.
Available Forces	Only light and medium bombers needing French bases.	Light bombers based already in France.	Four-engine heavy bombers needed; none ready before 1939.

Air Sanctuary for Germany

When war broke out, the RAF had neither the bombers nor the escorts to carry out the precision daylight bombing that plan W.A.5 (the Ruhr) required. When the aircraft were available, the plan could be considered afresh, but for the present air crews had to be preserved, since their role as trainers of the new, enlarged Bomber Command took first priority. Even dropping propaganda leaflets by night could be useful valuable training for air crews and for giving the German people an idea of what might befall them eventually. If the Luftwaffe did attack London, however, the Ruhr might be targeted. An attack any deeper into the Reich, Bomber Command warned, might well end in a "major disaster."[31]

Because the Allied air forces could not undertake the sort of bombing that could be decisive, the governments refrained from initiating a strategic bombing offensive. Such restraint also avoided giving Germany a convenient excuse to initiate its own strategic bombing campaign against a poorly defended Britain. Instead, planning turned to the bombing of clearly identifiable military objectives, a means of using bombers while conserving their crews for the future.

A final consideration was neutral (i.e., U.S.) opinion. The difference between the Allies' moral position and Hitler seems obvious today; it was not so apparent to contemporaries. Holding the moral high ground remained an important objective for Allied political warfare even when it grew out of perceived military inferiority.

Anglo-French Conceptions of Bombing, 1939–1940

Anglo-French staff conversations began only after Hitler's absorption of Czechoslovakia in March 1939, and French influence exacerbated the trend toward caution. The French were mortally afraid of unrestricted bombing, lacking a bomber deterrent, adequate fighter protection, or a warning system, while having a target very nearly as valuable and vulnerable as London—Paris. The two Allies agreed that an all-out bombing offensive had to be avoided, even if it were the only means of aiding Poland, now guaranteed by both. They prudently agreed to restrict bombing to military targets unlikely to entail civilian casualties. These limitations were reviewed and reaffirmed as late as August 1939.

The French did want the AASF to slow up any German advance through the Low Countries. Both the French general staff and its air

[31]Ibid., p. 100; "European Appreciation, 1939–40," Chiefs of Staff, February 20, 1939, COS 843, CAB 53/45.

planners saw a German ground offensive in the west as the most dangerous threat and wished to see it and its communications targeted. The RAF refused any but a general pledge to do what was expedient in the circumstances, never ruling out the possiblity of a German all-out air offensive against Britain. The AASF's priority remained as it always had been: strategic bombing to reduce the scale of attack on metropolitan Britain.[32]

As a result, the most that the Allied air forces could agree on was that selection of bombing targets would depend on circumstances. Tactically, there was even less agreement, for the French very much wished the air force to attack troops on the march, trains in transit, and such targets as might become critical in the course of a campaign in defense of northern France. The Air Staff continued to doubt the practicality of such schemes given the capabilities of German defense, of Allied intelligence, and of British and French day bombers. Instead, the RAF preferred attacks on fixtures of military consequence, such as depots, maintenance facilities, defiles, bridges, railroad yards, and shops and army bases, all targets whose location could be known and plotted but whose destruction could not immediately affect the war on land.

Thus, Allied bombing plans on the eve of war relegated Bomber Command's potential contribution to a "decisive situation," i.e., a moment on which the balance of the war turned, a Battle of the Marne. Otherwise, not until it was capable of a massive contribution would the strategic air offensive be embarked upon.

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[32]"The Employment of French and British Air Forces on the Continent," Anglo-French Conferences, CAB 29/159.

IV. BELGIAN PLANNING

BELGIAN NATIONAL STRATEGY

The Legacy of Versailles for Belgium

From 1920 to 1936, the Belgian and the French militaries were bound in a technical agreement to enforce the terms of the Versailles Treaty. Although sometimes spoken of as an alliance, it was much less. Specifically, the agreement between the two general staffs (and never ratified by either parliament) provided for a common response to any German mobilization, for the defense of Luxembourg, and for a coordinated defense once Allied units evacuated the German Rhineland.[1]

The Geography of Belgian Defense

The military agreement never became an alliance because of abiding tensions between the Flemish and Walloon (French-speaking) communities in Belgium. The distrust between Fleming and Walloon lay at the root of Belgian military planning just as surely as did budgetary constraints.[2] The Flemish community suspected Walloon motives, for close ties with France increased Walloon influence in Belgian politics at the expense of the predominantly working class Flemish majority (61 percent). The depth of mistrust between the two communities, which took on the attributes of class conflict as the depression took its toll disproportionately on the older industries of Flanders in the thirties, extended to questions of defense.

Belgian regiments were normally stationed in the district in which they were recruited; at most, they might garrison an adjoining but linguistically identical district. The depth of mutual mistrust between the Flemish and Walloon communities was such that units drawn from one community were not believed reliable to defend the other, so mobilization schemes were drafted accordingly. Figure 13 shows how defending, not defending, or too weakly defending any portion of the country, as might be necessary for a small state, inevitably raised the communal issue. For example, linking with the French not only

[1]Jonathan Helmreich, "The Negotiation of the France-Belgian Military Accord of 1920," *French Historical Studies*, III (Spring 1964).

[2]This discussion follows the main lines of David Kieft, *Belgium's Return to Neutrality* (Oxford, 1972), Ch. 1.

increased French influence but left heavily populated Flanders open to a flank attack.

Close ties with the French also raised the suspicion among Flemings that France aimed to involve Belgium in quarrels not of her own making. France's alliances with Poland and the Soviet Union caused special disquiet. For these reasons, the Socialist Party and the Flemish nationalists wanted a nonaligned foreign policy, too.

Figure 14 shows what Belgian strategists considered the three potential avenues an invading force might take:

1. Via Dutch Limburg, the "Maastricht Appendix," along the axis Düsseldorf, Roermond, Brussels.

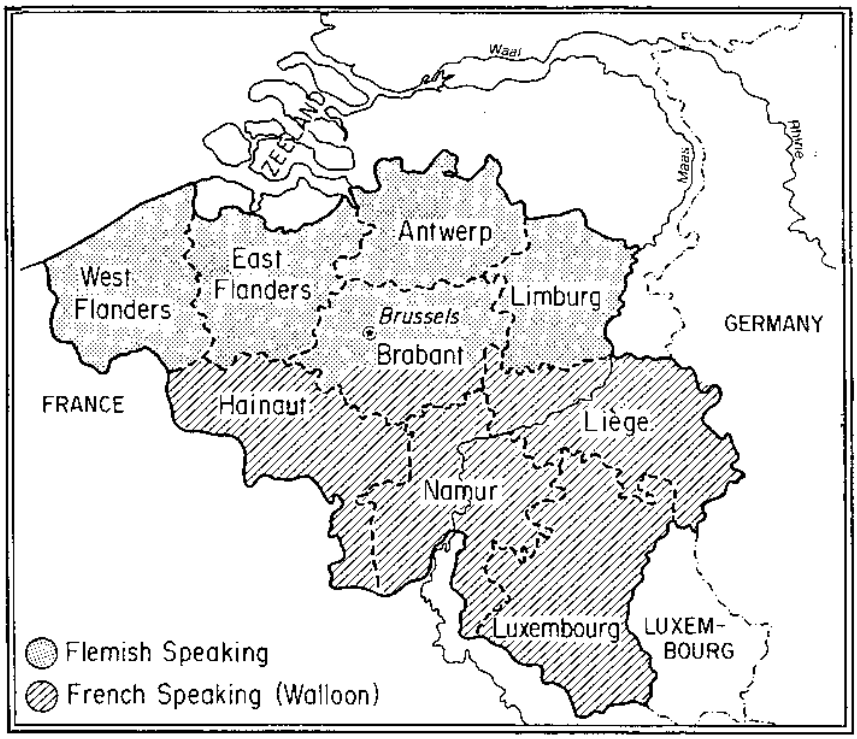
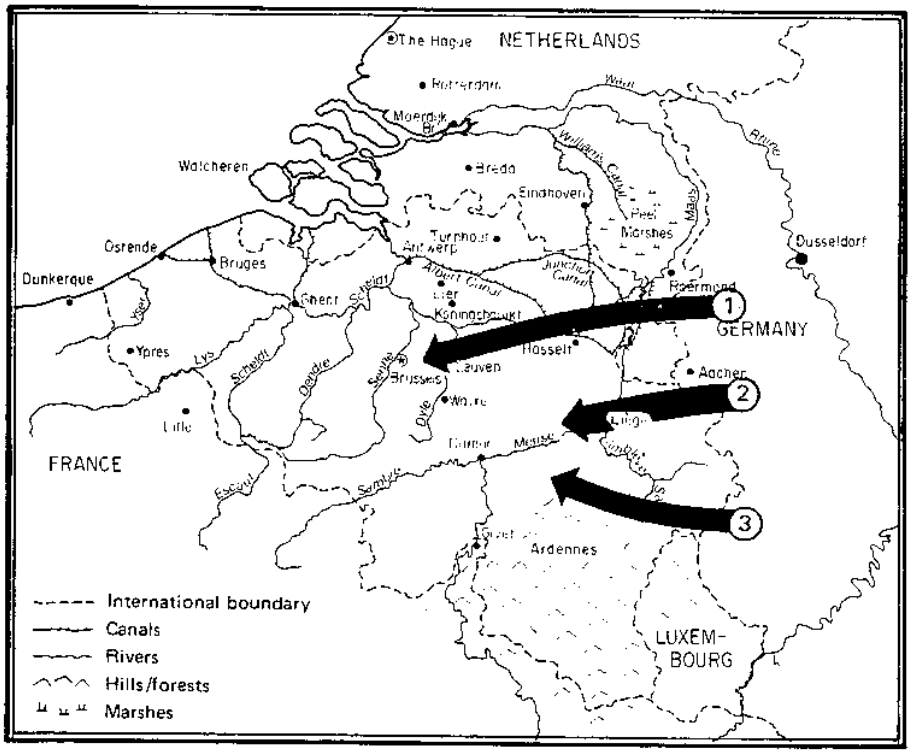


Fig. 13—Belgian provinces and linguistic frontier

2. The Aachen Gap, the axis Duren, Aachen, Liège.
3. South of Liège, through the rugged Ardennes.

In all cases, Belgian planners evaluated the feasibility of an invasion route in terms of its access to the populous industrial and political heartland, the cities north and west of the Meuse: Liège, Namur, Brussels, Ghent, and Antwerp.



(1) Through Maastricht Appendix, by-passing Belgian fortifications.
(2) Straight through the Aachen Gap, Liège forts, Meuse, and Belgian army.
(3) Through the northern Ardennes, outflanking Liège defenses.

Fig. 14—The three German threats to Belgium

Historically, the Aachen Gap had provided the easiest route, one facilitated by abundant rail and road communications, and Liège blocked this route. Liège formed the key to the most easily defended position Belgium had. A line consisting of the canals in the Campine district northeast of Antwerp and Brussels covered the left flank of the position; the fortifications of Liège blocked the Aachen Gap, and the Meuse River (Maas in Dutch territory downstream from Liège) formed the right flank. The defended cities of Huy and Namur upstream from Liège provided further coverage. An invader who had penetrated this position could readily:

1. Break through into the broad Flemish Plain and capture the capital Brussels, Antwerp, and the Channel Ports, and enter French Flanders to seize Lille, or
2. Proceed along the Meuse/Sambre Valley into France and Paris.

The only remaining Belgian defense lines were those formed by the succession of rivers, generally tributaries of the Scheldt (Escaut to the French), which flowed north, thus lying athwart a German advance. Before 1940 these were not prepared positions and could be outflanked by swiftly moving modern forces.

North of the Meuse on the axis Aachen-Liège-Namur, however, the terrain had no woods, marshes, or rivers to delay an invader. The gap between Namur and the city of Wavre known as the Gembloux Gap offered exceptionally promising terrain for a mobile force, and it led directly to the Sambre Valley.

For these reasons, Belgian planners identified four lines of defense:

1. Antwerp-Junction Canal-Liège-Meuse-Namur-Upper Meuse
2. Antwerp-Leuven-Wavre-Namur-Upper Meuse
3. Antwerp-Turnhout-Ghent-Upper Scheldt
4. Antwerp-Ghent-Ostende (the National Redoubt)

These are shown on Fig. 15.

The heavily forested and mountainous province of Belgian Luxembourg—the Ardennes—figured only slightly in military geography. No invader of Belgium would choose a region so ill-served by road or rail communications. The only possible purpose of an advance through the Ardennes would be to outflank the Liège defenses, but plainly such an advance would be on the axis Prum-St.Vith-Vielsalm, well north of the Grand Duchy of Luxembourg. Any advance through Luxembourg or on an axis oriented toward France was the affair of France.

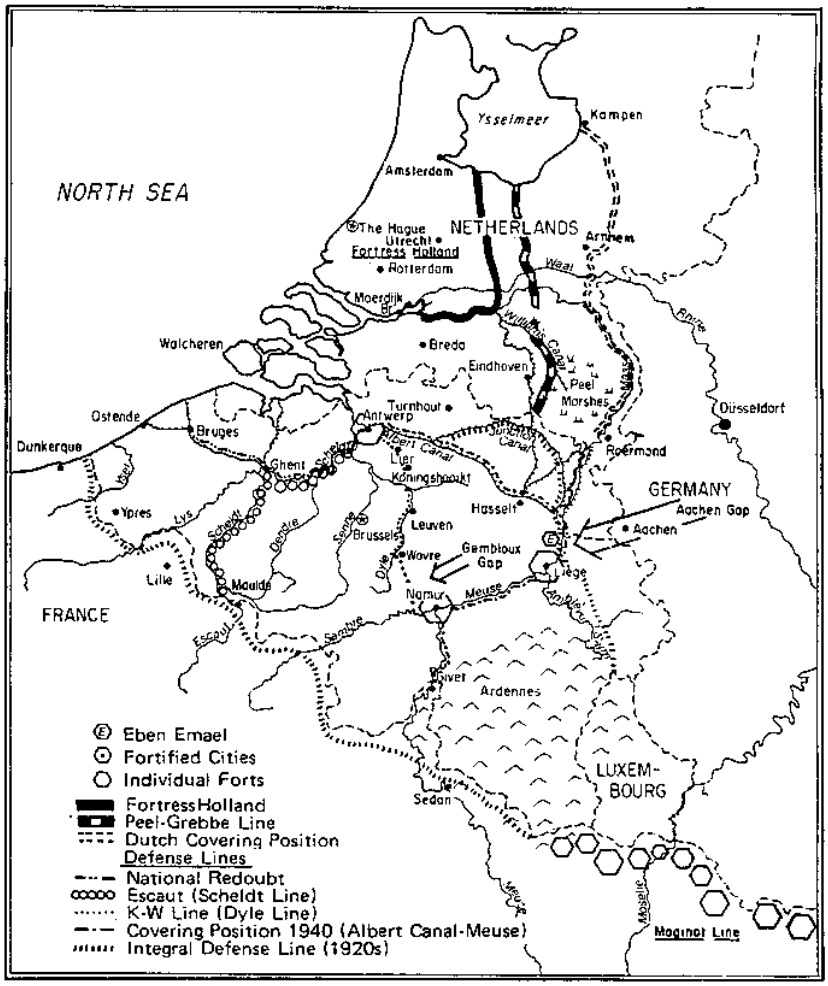


Fig. 15—Defense lines in the Low Countries

A salient formed by the River Meuse formed the cornerstone of Belgium's defenses, as shown in Fig. 15. At the apex stood the heavily fortified city of Liège and upstream was the fortified city of Namur. Dutch Limburg protected the northeast frontier of Belgium, and by the

late 1930s the new Albert Canal linking the Meuse with the fortifications surrounding Antwerp was complete. Thus anchored, the Albert Canal secured the left flank of the Belgian position just as the Meuse secured the right flank.

Behind the forward line formed by the Meuse and the Albert Canal stood a series of rivers, roughly perpendicular to any prospective German advance. These were the rivers Dyle, Dendre, Scheldt (Escaut in French territory), and Yser. Only the Scheldt was large enough to compare with the Rhine or Meuse as a geographic obstacle in its own right. With some work, however, any could be transformed into a good defensive position.

Equally important in Belgian thinking was the role that could be played by the country's network of canals and easily inundated lowlands to delay an invasion. Demolitions of bridges and dikes figured operationally in all Belgian planning.

Finally, Belgium had another defensive position, the so-called National Redoubt, the quadrilateral formed by Terneuzen, Ostende, Ghent, and Bruges, which dated from before 1914 and which comprised the cities' fortifications and the canals linking them. These defenses had been swept aside by the German advance in 1914 and were not restored afterward, but planners continued to refer to the National Redoubt throughout the interwar years.

The Ardennes is an undulating plateau that occupies much of Luxembourg and all of the Belgian province of Luxembourg besides extending into the French department of Ardennes. Although it is as high as 2300 feet, its average height is only somewhat above 1000 feet. Deep, winding valleys cut through it, chiefly those of the rivers Meuse, Ourthe, Semois, and Lesse. Much of it is densely forested; at higher altitudes it is barren moorland.

The military writer B. H. Liddell Hart described the Ardennes in 1938 in terms that are unlikely to be bettered and which were shared by contemporaries:

> . . . the Ardennes country east of the Meuse can be yielded to an invader without serious industrial or military risk. Indeed, because of its relative barrenness and difficulties of communication it might prove a strategic trap for an invader if he fails to cross the Meuse . . . an invader of the Ardennes . . . might find difficulty in maintaining the supply of his forces under concentrated air bombardment of the winding roads and narrow defiles in the Ardennes. . . . [having toured the terrain in 1937] It was revealing to find how immensely strong by nature were the series of positions—the gorge of the Semois, the heights north of Sedan, and the Meuse—upon which the French [in 1914] might have stood . . . . If present-day Belgian strategy visualizes the Ardennes as the scene of a manoeuvre in

> withdrawal [as it did], not of rigid resistance, in face of superior numbers, there is ample evidence of preparations designed to make any hostile progress a march in slow time, and to compel an enemy to make the most exhausting efforts. . . . at many points where the roads cross the rivers a handful of machine-guns might hold up an army corps. It is clear that the scheme of defence is planned to make the most of these numerous possible Thermopylae.[3]

Yet two German armies crossed the Ardennes in August 1914, the Saxon 3rd Army and the 4th Army. The 3rd Army with eight divisions of 180,000 men used the axis St.Vith-Dinant. The 4th Army with ten divisions took the Bastogne-Neufchâteau-Sedan axis with 200,000 men. The Saxons crossed the frontier on the 17th and took Dinant on the 23rd. Moving on three parallel lines of approach, one corps to an axis, the 3rd Army established a front between Marche-en-Famenne and St.-Hubert on the 24th, having taken six days to march 50 miles across the Ardennes. By comparison, the German armies on the Aachen axis and facing some opposition required a week to march 100 miles.

The 4th Army reached Bastogne on the 19th, having taken just two days to cross the Grand Duchy. The axes along which these movements took place are shown in Fig. 16.

The balance of evidence suggested that without opposition the Ardennes were no obstacle even to large unmotorized bodies with their extensive trains of animal transport. However, it was thought that effective demolitions and minimal opposition could effectively close the Ardennes to any large body of German soldiers in 1940. They were just as dependent upon animal transport as their fathers in 1914.

The real reasons for the comparative Belgian neglect of the territory was that it lay outside that part of Belgium that could feasibly be defended. As for France, it was a region that could safely be entrusted, as was the entire front, to weak "B" reserve divisions. As elsewhere, better formations were to deal with any breakthrough.

Events Influencing Belgian Planning

In February 1936, just a month before the not unforeseen German remilitarization of the Rhineland, the Belgian government abrogated the military agreement with France. This step grew out of the military conviction that the agreement had no value for Belgium given French strategy while exposing Belgium to a repetition of 1914. Only Belgium, ultimately, could guarantee her own security, and this entailed rearmament, something politically difficult in view of Socialist and Flemish opposition. To establish the necessary consensus for rearmament,

[3]B. H. Liddell Hart, *The Defence of Britain* (1938).

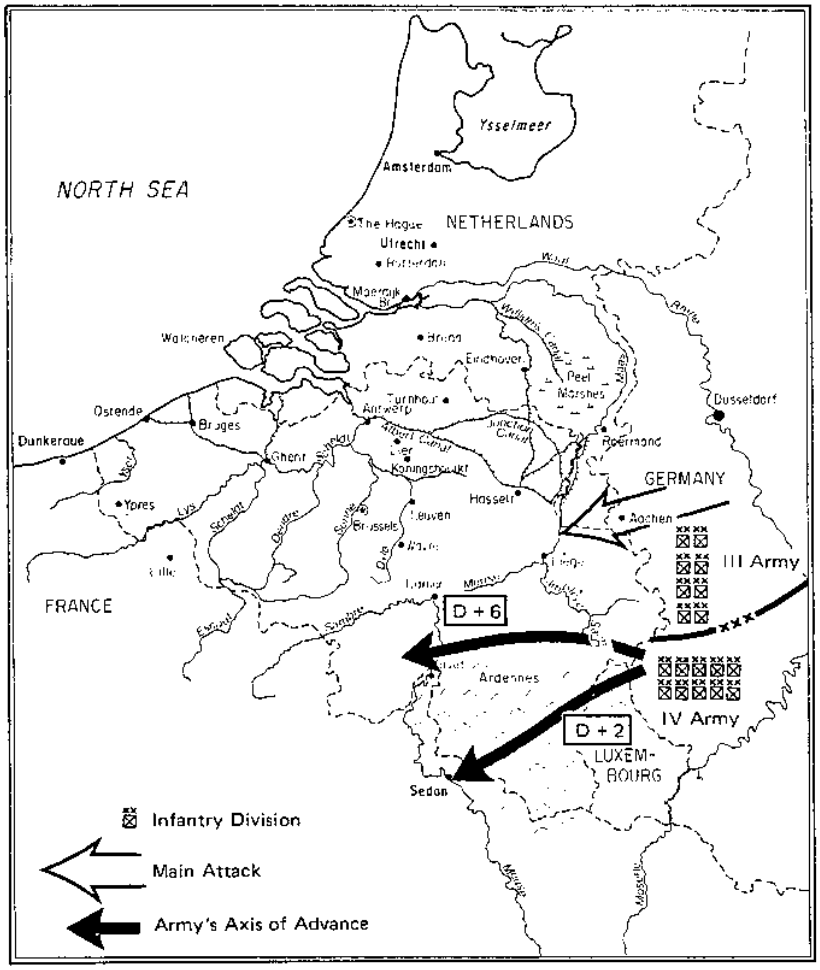


Fig. 16—The German advance through the Ardennes, 1914

Belgium had to sever the militarily worthless but politically expensive link with France. As Belgium's leaders reckoned, neither France nor England would abandon Belgium in any event, so that paradoxically a

neutral Belgium enjoyed all the benefits of alliance while paying none of the price.

As if to bear out the correctness of the Belgian calculation, France and Britain released Belgium from her Locarno obligations in April 1937, while reaffirming their own readiness to defend Belgium as if Locarno were still in force. And in October Germany reaffirmed its respect for Belgian neutrality.

Table 12 illustrates the full range of limitations within which the Belgian army prepared to defend the nation.

BELGIAN ARMY PLANNING

The Problem Considered

The defense of Belgium was the army's concern, and for practical purposes the focus of planning was a German threat. The task for planners was how to make the most advantageous use of geography to delay or stop an invader.

The Strategic Debate

Two basic schools of thought developed among Belgian staff planners during the 1920s. The first, the school of "integral defense," proposed to defend all Belgian territory, meeting an invader at the frontier. It drew from World War I a doctrine identical to that of French tacticians—that of the continuous front, behind which resources were built up eventually to overwhelm the invader. Table 13 analyzes its assumptions and objectives. The principle of defending the entire kingdom appealed strongly to the army's ethos as a national force standing above the linguistic conflicts that threatened both a coherent defense policy and the nation itself.[4] However, as Fig. 17 shows, integral defense exposed a long and vulnerable frontier.

Integral defense suffered from the problem that securing Belgium's borders required troops and munitions in quantities beyond either Belgium's demographic or financial resources. Counting the Dutch frontier, Belgium had to guard 300 km, a distance equivalent to the French-German border and one wholly beyond the nation's resources to fortify or to defend in its entirety. Nor were the political means to implement this strategy at hand. In the antimilitary climate of the twenties, parliament relentlessly cut military service, eventually to just 10 months by 1926. Substantial sentiment even favored six-month

[4]Kieft, op. cit., pp. 41, 44.

Table 12

FACTORS INFLUENCING BELGIAN PLANNING

Year	Diplomacy	France-Belgium	Germany	Politics	Military Policy	Plans
1920	British refuse guarantee	Agreement with France		King Albert		Integral defense
1921		Polish alliance	Rhineland demilitarized and occupied by France, U.K., and Belgium			
1922						
1923		Ruhr occupied				
1924		Czech alliance				
1925	Locarno Pact					
1926			Reichsheer deemed possible threat ca. 1927		Mixed Commission on Defense	
1927						
1929		Staff agreement on frontages				
1930		Pétain faux pas	Rhineland evacuated		Albert Canal begun	
1932	Disarmament Conference					
1933		Second Pétain faux pas	Hitler		Liège forts rebuilt	
1934				King Leopold	New forts created	

Table 12—continued

Year	Diplomacy	France-Belgium	Germany	Politics	Military Policy	Plans
1935	Ethiopian crisis	Franco-Soviet pact	Conscription & Luftwaffe announced			
1936	Spanish Civil War Belgian neutrality	Belgium renounces military pact with France	Rhineland reoccupied	Constitutional crisis	Albert Canal completed; rearmament sanctioned; informal general staff contacts with France	Defense in depth
1937	Anglo-French guarantee		Agrees to respect neutrality			
1938		Czech crisis				
1939	Armed neutrality		Rumored German invasion		Dutch reject staff talks K-W Line completed	

Table 13

BELGIAN "INTEGRAL DEFENSE" PLANNING

Dates	In effect 1920 to about 1936.
Purpose	To secure all Belgian territory, with French help, against a German attack.
Objectives	For Belgian troops—to hold a German invader at or near the border. French troops to advance through Ardennes to hold German border south of Meuse at Liège.
Threat Assessment	Until 1934–1935, ten German divisions. Germany: Reichswehr seen as highly professional force after about 1926.
Concept of Operations	Defensive. To prevent an attaque brusquée by the Reichswehr from turning Belgian positions at Liège and north along the lines of either the Junction or the Albert Canals. French troops to form continuous front, holding sector most important to French security.
Available Forces	Belgium: 12 regular and nine reserve divisions.
	France: five infantry and one cavalry divisions.
Geostrategic Context	Rhineland occupied (1919–1930) or demilitarized (1930–1936), so advance warning of any attack likely.
	Belgian forts rebuilt at Liège and to the north. Albert Canal built 1930–1936.
Bilateral Relations	France: General staff agreement of 1920 lacked parliamentary or popular approval, especially after Locarno Pacts (1925).
	Britain: Refused to guarantee Belgium except under Locarno framework. No staff talks.
	Germany pledged in Locarno Treaties (1925) to uphold Belgium.
	Holland: Neutral. No military arrangements or discussions with Belgium. No Dutch intent to defend Limburg (Maastricht Appendix).

service. The Socialist Party, itself predominantly Flemish, loathed all things military. In fact, attempting to defeat Germany on Belgium's fronters required a massive reinforcement of French troops before hostilities, and this project, which defended French-speaking southern

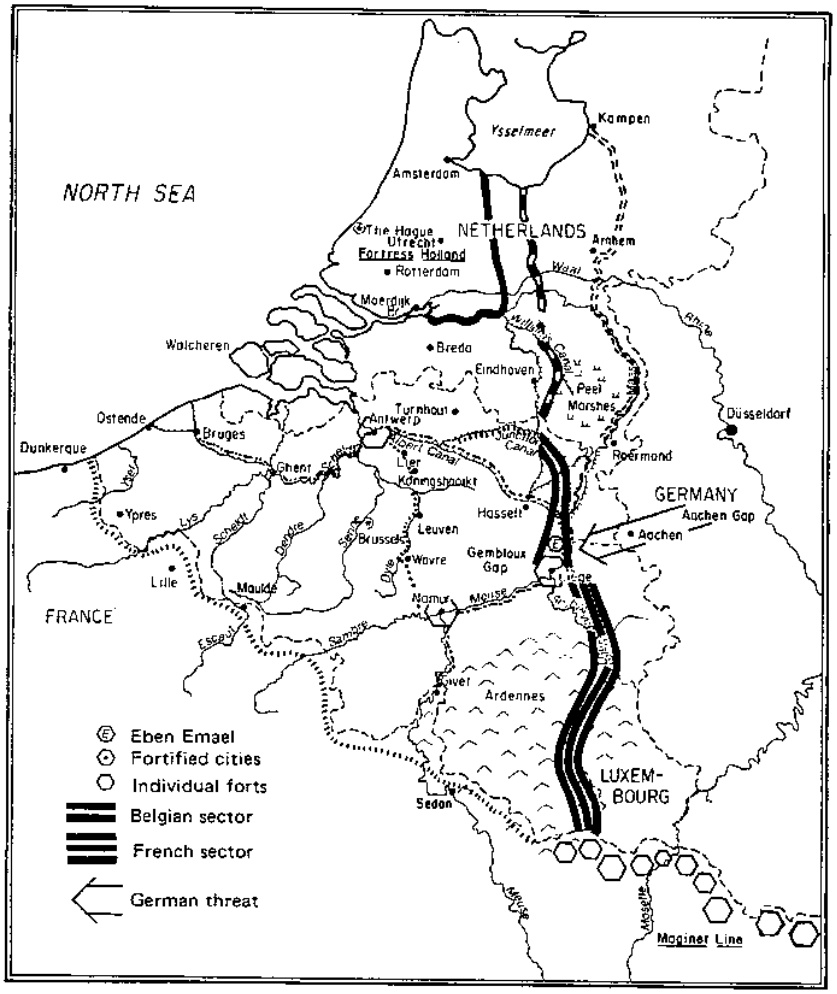


Fig. 17—Integral defense

Belgium (Wallonia) became associated with Francophile politics. The general associated with this thinking was also the co-signatory of the Franco-Belgian military agreement. All too apparently, Belgium was to be France's glacis.

The second school of thought, dubbed "defense in depth," proposed to hold the frontier lightly and to station the bulk of the army to the west around its points of concentration: Namur, Ghent, Antwerp, and Liège, all boasting established but obsolete forts. The army would be modernized but not greatly expanded, rather like the Reichswehr. Thinkers from this school reaffirmed the value of fixed fortifications on grounds of both economy and recent history. Forts were of value not so much to stiffen a continuous front but to provide strongpoints around which a mobile field army could maneuver and respond once the direction of attack became apparent. If necessary, they provided a place of refuge behind which the nation's army could shelter. To adherents of "defense in depth," preservation of the army as a fighting entity was the greatest object. Table 14 gives its assumptions and objectives,[5] and Fig. 18 shows how a fighting retreat might have proceeded.

The Interwar Strategic Consensus

These questions were addressed in 1926–1928 when a Mixed Civil-Military Commission examined Belgium's defenses. Until the Locarno Pact of 1925, the very basis of Belgian planning had been the Allied occupation of the Rhineland, but under the Locarno Pact the Rhineland was to be evacuated by 1930. Belgium now would have to fight on her own soil, not on the protective glacis that the Rhineland had been, and it meant that an attack from the highly trained and motorized Reichswehr would come without warning.

With these considerations in mind, the Mixed Commission recommended:[6]

1. To fortify the line between Liège and Eben-Emael, in effect barring the easiest entry and anchoring the right flank of the line the commission advocated for the couverture. The line to be held by the covering force was to be the Albert Canal, whose construction began in May 1930.

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[5]Kieft, op. cit., p. 42.

[6]The deliberations and recommendations of the Mixed Commission are discusssed in Raoul Van Overstraeten, *Albert I, Leopold III* (Bruges, 1984) pp. 33–47, passim. Van Overstraeten also explains the twin schools of thought on Belgian defense.

Table 14

BELGIAN "DEFENSE-IN-DEPTH" PLANNING

Dates	In effect 1936–1940.
Purpose	To defend the major population centers of Belgium unaided by any ally against a greatly rearmed Germany. German attack through Limburg thought most likely.
Objectives	To preserve the Belgian army, specifically to avoid its being encircled at Liège by an attack along the axis Roermond-Hasselt-Brussels or by such an attack coupled with one through the Ardennes moving north.
Threat Assessment	German divisions: 21 (1935); 39 (1937); 72 (1938); 108 (1939).
Concept of Operations	Defensive. Aimed to fight back from the frontier either along lines Albert Canal-Liège-Meuse River-Namur and Upper Meuse or further back on line Antwerp-Namur. Ardennes to be held only by light forces that would withdraw to Meuse.
Available Forces	Belgium: 12 regular and nine reserve divisions aided by ultramodern forts.
	France: No help assumed.
Geostrategic Context	Belgians denounced military agreement with France just before German reoccupation of demilitarized Rhineland; opted formally for neutrality in October 1936.
	Britain and France agreed to guarantee Belgian borders in 1937; no staff talks formally, some continue at high level.
	Belgian public hostile to possible involvement in French-inspired war. Government believed neutrality only means of gaining consensus in favor of rearmament.
	Albert Canal and Liège forts complete after 1936.
	No Dutch military conversations.
	Germany agreed to uphold Belgium's integrity in October 1937.

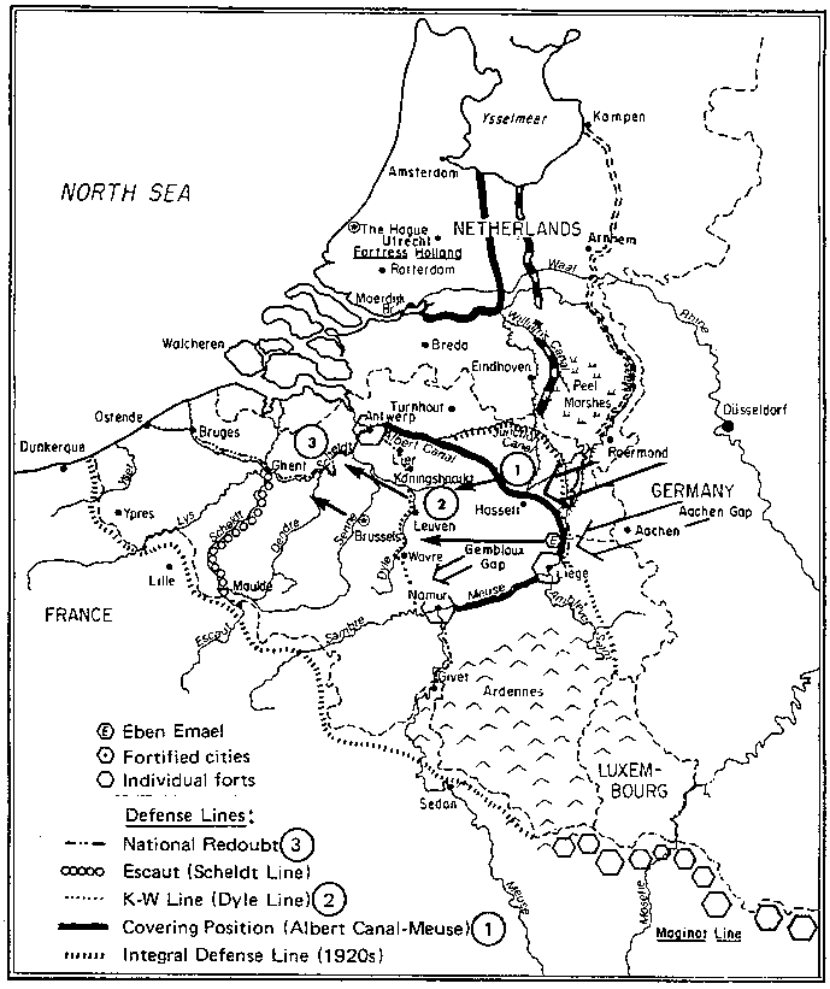

Fig. 18—Defense in depth, late 1930s

2. To provision and otherwise to prepare the area between Antwerp and Namur as a battleground for the expected encounter.
3. To prepare Ghent as a bridgehead upon which a retreating army could fall and be supplied while forming part of a line of defense based on Belgian water courses.

The Mixed Commission rejected the entire program of integral defense and a close relationship with the French. It abandoned any idea of forming a continuous front with the French, who would defend the length of the Ardennes. Instead, the Ardennes was to be defended only by light forces, as the defense-in-depth strategy advised.

The purpose of rebuilding the old fortifications was to free Belgium from undue dependence on the French and to make the smaller army's modernization affordable. The forts were the price to be paid for maintaining a modern army and avoiding six-month service. Appendix A treats the entire system.

Nonetheless, the commission, ever mindful of Walloon susceptibilities, did not advise defending only the Flemish heartland of Belgium. The new mobile Belgian army was to be deployed forward on the salient now to be formed by the Meuse, the Liège fortified region, and the new Albert Canal. The army still held an exposed forward line forming a salient, and it now did so without relying on French help. The dilemma of Belgian defenders was to hold as much of Flanders as possible without sacrificing the army. The fortified Meuse salient offered the best hope.

Although an integral part of the nation's waterways and deep enough for coastal shipping, the 65-m-wide Albert Canal formed part of the new defense system. The 200-km-long canal linked Antwerp with a position on the Meuse 30 km north of Liege, where the great fort of Eben Emael was erected. Buttressed with field works and with three fortified strong points every mile, the Albert Canal was a position of great natural strength. It would be held by the mobilized portions of the army while frontier guards and engineers carried out demolitions to retard the advance of a German invader, allowing the remainder of the army to mobilize and British and French troops to come to Belgium's aid.

This was for the future. The compromise propounded by the Mixed Commission laid the military foundations for the neutrality Belgium formally adopted in 1936 by severing links with France. It also laid the foundations for May 1940, by giving the army an assignment but not the means to carry it off. The Mixed Commission deployed the army

forward to defend a line beyond Belgium's resources, and domestic politics forbade the army to obtain Allied help.

The French Reassessed, 1930–1936

The Franco-Belgian military agreement addressed issues paramount only in the early twenties, when a disarmed Germany posed no threat to either nation. With Germany's recovery and the development of von Seeckt's Reichswehr as an effective fighting force, the agreement's relevance declined. In the late 1920s the Chiefs of Staff agreed that in any war the Belgian right flank would rest on Liège, and the French would hold Belgian Luxembourg and the Amblève River Valley southeast of Liège, a division of responsibilities subsequently reaffirmed at the same level. This was integral defense in practice.[7]

General Maxime Weygand confirmed in November 1934 that on the second day after mobilization of the couverture, France could put two North African infantry divisions and a cavalry division on the line Garnich-Arlon, two motorized infantry divisions and a light division on the road to Bastogne, and a brigade of horsed cavalry and a motorized infantry division on the road to Dinant and Vielsalm. These were among the most modern and most mobile units in the French army.[8]

The beauty of this arrangement was that it effectively allotted to each nation the defense of the Belgian territory of greatest national interest. The Belgian army committed itself to defending the Meuse-Albert Canal salient, while the French undertook to defend Belgium's frontier with Luxembourg to create the continuous front envisaged in integral defense.

After the Allies evacuated the Rhineland in 1930, the Belgian and French governments in February 1931 narrowed their military agreement down to the precise obligations enjoined by the Locarno Pact and by the League of Nations, omitting all efforts to deal with the possibility of concrete violations of the Versailles Treaty. Further, the two governments dropped any mention of defensive collaboration, effectively depriving the 1920 agreement of any meaning.[9]

The French did not help their cause by repeatedly affronting Belgian self-esteem in the early 1930s. Marshal Pétain, French Chief of Staff, informed the Belgian ambassador in October 1930 that since Germany was certain to invade Belgium in any future war with France,

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[7]Kieft, op. cit., p. 9.

[8]Van Overstraeten, op. cit., pp. 141–142.

[9]*Les Relations Militaires Franco-Belges* (Paris, 1968), p. 20.

French troops might have to enter Belgium without an invitation, conceivably against Belgian opposition.

Three years later, he told the ambassador more categorically that French troops *would* enter Belgium in such circumstances. Pétain made matters worse by admitting that this might happen even if the French troops were fighting on behalf of Poland. Although Pétain's successors disavowed his words, the political damage was done.[10]

The ethnic question intruded even on technical matters, for Flemings recognized that France wanted to fight Germany on Flemish soil. To Flemings it seemed that integral defense required the whole nation to defend the primarily Walloon provinces of Liège, Namur, and Luxembourg only to expose Flanders to a stroke through the Low Countries. Walloons disagreed for evident reasons. They supported close links with the French as the only way to defend Belgium, and Walloon politicians were not about to abandon their compatriots for more defensible positions. So envenomed an atmosphere did not produce coherent strategy.

A Neutral State's Plans, 1936–1939

Informal Alliance with France. Whatever the formal diplomatic relations, French and Belgian planners remained in close contact at this time, and each was fully aware of the others' plans and capabilities.

The French had expected to continue staff talks with their Belgian counterparts regardless of the Belgian government, and they did.[11] The Belgian Chief of the General Staff, General Van den Bergen and the French Generalissimo Gamelin met in Paris in May 1936 and informally developed the plans that defined Franco-Belgian military cooperation before 1939. General Van den Bergen, very much the integralist, envisaged the following line: Junction Canal, Meuse, Liège with outworks extended into the Amblève River Valley, and the River Salm in the direction of Vielsalm.

The two nations thus would take their stand on the Albert Canal-Meuse line, the Belgians commanding their own and any French units north of Liège and the French those troops south of Liège. This tacit division of reponsibilites went no further. The danger of leaks led the Belgian Chief of the General Staff to limit contacts with the French to the highest levels only. This precaution, eminently sensible in view

[10]Kieft, op. cit., pp. 12, 17.

[11]Transcript of discussions, May 15, 1936, *Documents Diplomatiques Françaises*, 2nd series, Vol. II, No. 217, pp. 322–329.

of Flemish susceptibilites, ruled out the careful staff work necessary if military collaboration were to be effective. Only intelligence contacts remained unaffected. Although the Belgians drew the line at plans specifying the exact destination and mission of French units that might enter Belgium in wartime, they pledged the use of Belgian railways on six hours notice and offered to halt all nonmilitary road traffic in the event of war. Further, they offered to accept air reinforcements immediately.

Gamelin wanted the Belgians to maintain a continuous front extending from Antwerp to Liège to Namur, holding the lines of the Albert Canal and the Meuse, thereby guarding the Ardennes and anchoring the French left flank. He himself doubted that the Belgians would successfully defend themselves, and under his stewardship the French general staff made no plans for intervening in the event of the Belgian line collapsing and the army retreating to the National Redoubt. If a retreat were unavoidable, he hoped that the Belgian army in retreating would do so in such a way as to defend French interests while it remained always on Belgian soil and in contact with French units holding the Ardennes. Above all else, Gamelin in these years aimed for the French army to avoid an encounter battle in unfamiliar terrain and without benefit of prepared positions. He hoped to extract from the Belgian government an invitation for French aid before any invasion was unleashed.

The German Threat Reassessed. The Belgian general staff, whatever Van den Bergen's thinking, inclined more than ever toward the defense-in-depth school even if its formal commitment was to the modified integral defense of the Albert Canal-Meuse line. But a powerful current of soldierly opinion wanted Belgian military policy, like Belgian foreign policy, to pursue a policy "exclusively and entirely Belgian," in the phrase of the day.

The Belgian general staff theorized that a German attack would come neither through the Ardennes nor via heavily fortified Liège as in 1914. Most likely, a lightning attack would proceed along the axis Düsseldorf-Brussels, violating Dutch Brabant, crossing the Maas, and pushing across the thinly held Albert Canal. The Germans would then either trap the Belgian forces holding Liège or surround Antwerp and take Brussels.[12]

At the end of 1937, the Belgian general staff drew up a somber memorandum assessing changes in the international scene since 1927. At the earlier date, the Reichswehr had lacked both tanks and airplanes and had had no more than 100,000 effectives and no reserves,

[12]Van Overstraeten, op. cit., pp. 140, 247–251.

but ten years later it had modern weapons and unlimited manpower. Just as German strength had waxed, French power had waned, and France's troubled relations with Italy made it unlikely that France could spare troops for Belgium. The general staff reckoned that its army could not be mobilized in time even to prepare the line Antwerp-Namur.[13]

This view, which commanded great support among the royal entourage as well as in the government, unmistakably pointed toward defense in depth and to further modernization of the army. Appropriations for defense required above all that the national consensus be maintained, and only neutrality—diplomatic and military—maintained Belgium's fragile cohesion. Simultaneously, Belgium's governments tried through diplomacy to remove the incentives for Germany to strike at France through Belgium by distancing Belgium from France and adhering rigidly to neutrality. Meanwhile, Van den Bergen continued his discreet contacts with the French, and the result was strategic ambiguity.[14]

Strategic Uncertainty in the Face of War: 1939. By 1939 the Albert Canal was complete, but as a defensive position for any but light forces it had few admirers. Early in 1939 the general staff proposed to defend a new and shortened line linking Antwerp, Namur, and Givet, where French fortifications ended. This line, which went from Koningshoyckt near Lier to Malines and Louvain before terminating at Wavre, was dubbed the "K-W Line." It included a section of canal and the River Dyle (hence, it is generally known as the Dyle Line, although the little river formed only a portion of the entire position). Where no natural obstacles were present, principally in the bare Gembloux Gap between Namur and Wavre, antitank ditches were to be dug and a system of inundations devised.

Effectively, the K-W Line abandoned half the nation. Because of its proximity to such major population centers as Antwerp, Brussels, Louvain, Malines, and Namur, it brought many Belgians right up to the front line. For these reasons, it could not too obviously be readied. The K-W Line represented another strategic hybrid. In Belgian terms, it was an outgrowth of defense in depth. In geostrategic terms, it was a return to the continuous front and a direct link with the French (on the line of the Upper Meuse between Givet and Namur) even though it did not assume French assistance and was devised in expectation of none being available.

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[13]Ibid., p. 267.

[14]*Les Relations Militaires Franco-Belges*, op. cit., pp. 40–41.

The tactical expectation behind this was that a decisive battle of mechanized and motorized forces would be fought in central Belgium, a conflict far beyond the resources of the Belgian army. Its cavalry had motorized only in 1937, and its armor amounted to a single brigade. Faced with Hitler, Belgium's leaders had little choice but to reconcile themselves to the French and to dig in to save the army.

For domestic political purposes, Belgium continued to draft plans against the French, and the mobilization actually undertaken in August 1939 aimed to protect against both a French coup at Brussels as well as against a German invasion. Four of the eight active divisions were oriented against France, the same number as held the eastern frontier. True to form, the army's concentration put Walloon units against the German threat, and Flemish divisions from Bruges and Ghent safeguarded Brussels from the French. When antitank defenses were enhanced during the winter, it was made sure that some were ostentatiously built to protect against the French.

In reality, this was a charade. Most of the divisions facing France were mobile; they would respond swiftly once the direction of German attack became evident. Other divisions pointed at France were low-quality reserves destined for the second line in any event. This was a ruse with a purpose, for it maintained Belgian political cohesion during the seven months of armed neutrality when rumors of invasion by either France or Germany were rife and Belgium perilously exposed. Figure 19 shows how Belgium's deployment preserved the appearance of neutrality essential to national unity but managed to cover its endangered borders.

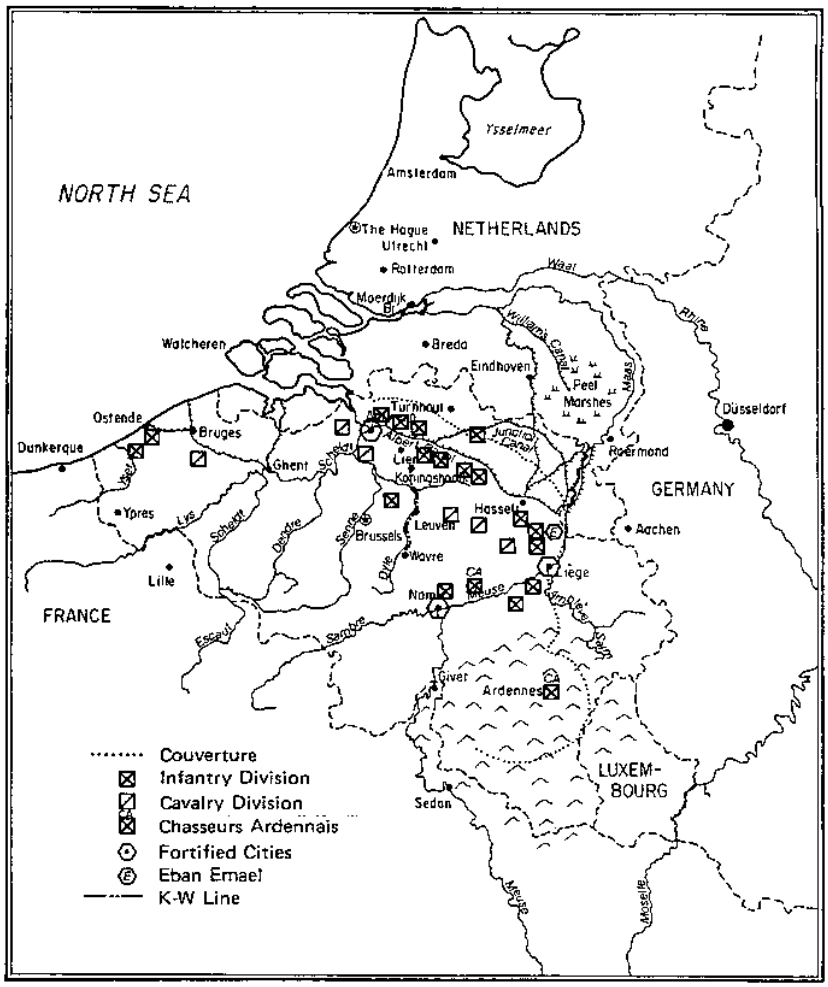

Fig. 19—Belgian dispositions, May 1940

V. GERMAN PLANS FOR WAR IN THE WEST, 1933-1940

GERMAN NATIONAL STRATEGY

Hitler's strategic grand design showed a remarkable consistency from his earlier days virtually to his final hours. He sought to achieve an economically self-sufficient land empire including all Germans on the European continent, one extending from the Atlantic to the Urals, which would be purged of internal and racial enemies and thus of social conflict. He hoped to collaborate with such co-racials as the British but never doubted the need to overturn the Versailles system, the states it had brought into existence, and France, the one great power that sustained it. Likewise, he never doubted the need finally to destroy Soviet Russia and to employ its territory as Lebensraum, a source of agricultural products and raw materials and an outlet for German colonists. His tactical objectives along the way varied with circumstances and the opportunities that political developments fortuitously presented to one who was prepared to move quickly. The reoccupation of the demilitarized Rhineland in 1936, the Anschluss (union with Austria) in 1938, the seizure of Memel (Lithuania), and the occupation of the remnant of Czechoslovakia, both in March 1939, were such hasty improvisations. They were both the outcomes of long-cherished intentions, but the actual military planning behind them was negligible.[1]

The absence of hard and fast plans until very late in the day reflected the influence of the extraordinary person who assumed command of the German army in 1934 on the death of President von Hindenburg. Hitler opposed the traditional pattern of diplomatic exchanges, ultimata, mobilization, a declaration of war, and finally war. He favored political warfare followed by a well-timed surprise movement of forces when circumstances were propitious. Acutely aware of Germany's vulnerability, he aimed to move swiftly when opponents least expected it and the political situation left them unprepared.

This sort of planning perfectly reflected Hitler's determination to use the army for limited goals, ones that avoided the danger of a war on two fronts that might turn into a war of attrition. The timing of his diplomatic initiatives and manufactured crises throughout the

[1]William Carr, *Arms, Autarky and Aggression* (New York, 1973), pp. 9–20.

thirties forms no part of this narrative, but those events reflected careful thought, so that the greatest immediate danger at any time was neutralized to allow for a lesser one to be handled decisively.

For example, Hitler's first diplomatic accomplishment was the 1934 Nonaggression Pact with Poland, which removed the genuine danger of a Polish preventive war[2] and weakened France's eastern alliance system. It also discouraged any French thoughts of enforcing the disarmament clauses of the Versailles Treaty, so enabling Germany to rearm at little risk. Rearmament was the necessary precondition for all subsequent plans. Of course, the Polish Pact also simultaneously demonstrated his pacific intentions, an ideal stroke of political warfare. Hitler's last peacetime diplomatic achievement, the Nonaggresson Pact with the Soviet Union in August 1939, freed his hands for dealing with first Poland and then France, just as the defeat of France made possible the long-cherished invasion of Russia.

Table 15 details the relationship between military planning and the developing international situation.

The Führer wished to exercise power directly, not through the army. To circumvent the military's hesitations, Hitler constituted his own military secretariat, the OKW, in 1938, which functioned as a second general staff, imparting general strategic direction, while leaving practical details to the army's general staff, the OKH. To the end, the army remained the one alternative center of power, something Hitler never forgot.

GERMAN ARMY PLANNING

Basic Orientation

When Hitler became Chancellor in 1933, the German army's plans for war were cast in terms of French sanctions under the Locarno Pact or the League of Nations, actions like the Ruhr occupation of 1923. These plans were no more than evacuation preparations, some even envisaging retirement behind the Elbe. Figure 20 shows some of the threats the new regime faced, including that of a Polish attaque brusquée. Although the 100,000-strong Reichsheer (organized as seven infantry and three cavalry divisions) was admired as the epitome of a new style professional army, its leaders saw it only as the nucleus for subsequent expansion. Until such growth actually took place, the army's leaders could not countenance its use. Although the German

[2]Waclaw Jedrzejewicz, "The Polish Plan for a 'Preventive War' Against Germany in 1933," *Polish Review*, Vol. XI (Winter 1966).

Table 15

FACTORS INFLUENCING GERMAN PLANNING

Year	Army	Luftwaffe	European Diplomacy	Hitler	German Diplomacy	Plans
1919	100,000-man Reichsheer (10 divisions); forts, conscription, reservists forbidden	Air force forbidden	Versailles Treaty			
1920						
1921						
1922			Rapallo Treaty with USSR			Evacuation schemes
1923				Beer hall putsch		
1925			Locarno Pact			
1926	Stahlhelm, stormtroopers equated as reservists					
1927						
1930		Flying clubs, active airframe industry				
1931						
1932			Disarm. Conference			
1933			Rumored Polish preventive war	Chancellor		
1934	Oder-Warthe Line built		Stresa front against Germany		Quits Disarmament Conference and League; Polish Nonaggression Pact	

Table 15—continued

Year	Army	Luftwaffe	European Diplomacy	Hitler	German Diplomacy	Plans
1935	Conscription 21 divisions	Luftwaffe announced	Franco-Soviet Alliance; Ethiopian War		Anglo-German Naval Pact	Schullung Plan
1936		550 *	Spanish Civil War		Anti-Comintern Pact	
1937	39 divisions					Red Plan
1938	Siegfried Line begun; 72 divs.			Czech crisis; purges generals	Anschluss; Munich	Green Plan
1939	108 divisions	2800 *		Czech dismembered; Danzig agitation	Soviet Nonaggression Pact; Pact of Steel with Italy	White Plan Yellow Plans
1940	150 divisions	3600 *	Mechelen incident			

NOTE: * Number of first-line aircraft.

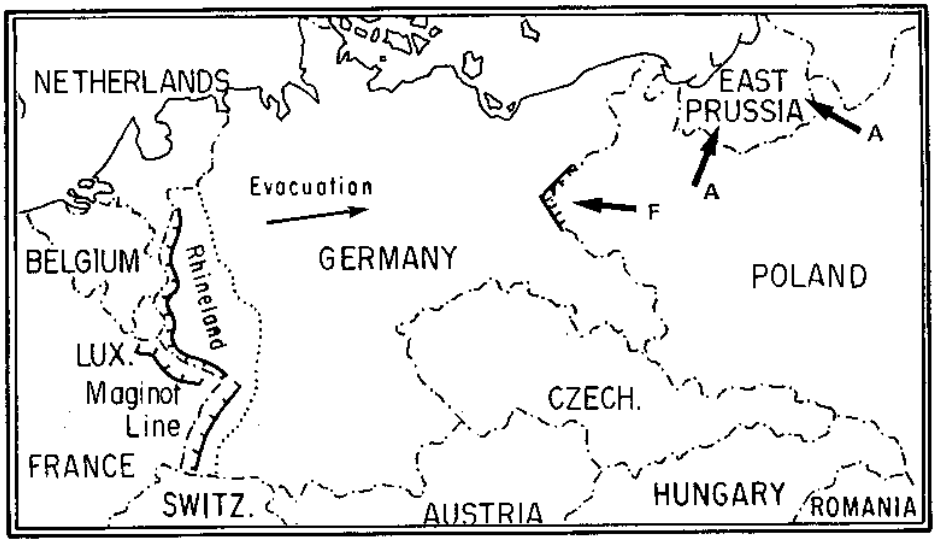

Fig. 20—German plans, 1933–1935

military originated the concept of the attaque brusquée, they shrank from using it unless they had the means to wage a long war.[3] Actual border defense schemes did not deal with the west until late 1935, when rearmament was well under way, conscription in force (offering an expanding pool of reservists), and the renamed Wehrmacht numbered 21 divisions. The German army grew steadily after 1935, swelling from 21 to 52 active divisions in 1939, plus another 51 reserve or militia (Landwehr) divisions. It operated as a force for caution, concerned above all to avoid a war on two fronts. In Hitler's early years, the Reichsheer prepared innumerable mobilization plans providing for a variety of responses public and covert to any number of international contingencies, such as a possible Habsburg restoration in Austria. The resulting Otto Plan, named after the Habsburg pretender Archduke Otto, was this sort of exercise.[4]

The general staff shared many of Hitler's early goals, such as rearmament, and both feared and hated Poland, Communism, and the Versailles system. The army's high command, however, drew back from his over-rapid expansion of the armed forces and from his riskier "Saturday surprises" (so called after his practice of timing military moves for the weekend when chanceries were lightly staffed and unprepared to react) and shared none of his more grandiose plans. The high command believed that the French could readily mount an offensive, and even after the Siegfried Line was built (1938–1940) continued to discount its effectiveness against a determined French attack, precisely the last thing the French planned. Conversely, the army was only too aware of Germany's relative unpreparedness and foresaw over-hasty action leading only to a prolonged conflict Germany was sure to lose. The OKH rated the various paramilitary formations, such as the S.A. (Nazi stormtroopers) as of no practical value. And as long as the Reichsheer's cadres were dispersed throughout the army as training units, the German army had no genuine effectives.[5]

As Hitler's successes mounted, however, the restraining influence of the military diminished. Each bloodless Nazi success not only confirmed Hitler's wisdom, it brought additional forces or armaments, thereby weakening the case the professional soldiers could make for prudence. The Anschluss, in 1938, brought in five Austrian divisions, and the liquidation of Czechoslovakia included the Skoda armaments

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[3]General Hans von Seeckt, "Modern Principles at Home Defence," *Army Quarterly* (July, October 1930).

[4]Albert Seaton, *The German Army 1933–45* (London, 1982), pp. 74–78.

[5]Walter Goerlitz, *History of the German General Staff* (New York, 1953), pp. 299–301.

works at Pilsen and Czech army stores with sufficient tanks for two more panzer divisions.

First Plans

The first war plan actually prepared by OKH was the *Schullung* ("training") scheme prepared in May 1935, a response to the Franco-Soviet Pact signed in March 1935. As both nations were allied with Czechoslovakia, it was reasonable to anticipate that a war with them would draw Czechoslovakia in as well. The plan thus featured an attaque brusquée on an unnamed eastern state, presumably Czechoslovakia. Forces in the west were to stand on the defensive or to fight delaying actions as necessary. The OKH believed the French had 11 infantry, one cavalry, and one armored division available for immediate deployment against Germany.[6] Table 16 schematically depicts the Schullung Plan. It anticipated two features very characteristic of all German plans before 1939:

- A determination not to fight on two fronts, something that diplomacy was to take care of, and
- A premium on rapid action more on the lines of the attaque brusquée than the blitzkrieg.

The OKH prepared a western plan in July 1935, which has not survived. Evidently, it was a defensive scheme that had frontier guards holding the Rhine while bridges and river craft were demolished to impede a French advance, as German troops fell back to the Black Forest area.[7]

Later in the year, however, the OKH prepared a defensive plan against a France unaided by the Soviet Union. This Red Plan allocated three weak armies to cover the Rhine with a fourth army guarding against Poland while Silesia was to be evacuated. Landwehr units were to cover against Czechoslovakia.[8]

Planning in the west remained very rudimentary, as Hitler's tactical objectives did not contemplate the use of force until the Rhineland was reoccupied in March 1936. Fortifications built in 1935 at the bend of the Oder-Warthe River line in Prussia were to ensure that the Rhineland move passed off without Polish interference or a vigorous French response on the assumption Poland would cooperate. And the

[6]E. M. Robertson, *Hitler's Pre-War Policy and Military Plans 1933-1939* (New York, 1967), pp. 89-90.

[7]Watt, op. cit., p. 105.

[8]Robertson, op. cit., p. 91.

Table 16

GERMAN "SCHULLUNG" (TRAINING) PLAN

Dates	In effect 1935.
Purpose	To defeat a triple alliance: France, USSR, and Czechoslovakia.
Objectives	To smash Czechoslovakia first, while holding France in west. Second phase against France or USSR not specified, but underlying assumption of defeating enemies in detail.
Threat Assessment	Czechoslovakia had 16 active divisions.
	France had an estimated 11 infantry, one cavalry, and one armored division immediately available to respond.
	Soviet Union had large army thought highly mechanized.
Concept of Operations	Attaque brusquée against Czechoslovakia employing only 21 active divisions of Reichswehr. Possible evacuation of Rhineland and retirement of troops in west to Black Forest.
Available Forces	Germany had 21 nominal divisions, but was diluting them with new conscripts; 13 realistically available.
Geostrategic Context	Soviet Union had no common frontier with either Germany or Czechoslovakia and could not hope to employ its numbers, since Polish consent to cross its territory very unlikely.
	Czech borders with Germany very mountainous, only passable defiles fortified.
	Rhineland demilitarized but without occupying forces.
	Ethiopian crisis embittering Anglo-French relations with Italy and raising prospect of Mediterranean war lessened dangers of French intervention.
	Austria, having repulsed Nazi coup attempt in 1934, guaranteed by Italy, but unlikely to join Germany in Schullung operations. Czechs confident of this frontier.
Bilateral Relations	Poland: German-Polish Nonaggression Pact. Poles aggrieved at Czech control of Teschen district, subject of 1919–20 conflict.
	Britain: British prized Anglo-German Naval Agreement (1935) limiting German naval rebuilding to 35 percent of British fleet.

Rhineland occupation was itself the necessary preliminary to any revision of Versailles in the east, whether against Austria, Czechoslovakia, or Poland. Achieved in that order, each move was the necessary precondition for the next; just as the Anschluss outflanked Czecho-

slovakia's border defenses, so the occupation of Czechoslovakia outflanked Polish defenses. Athough the OKH continued to fear the offensive potential of the French, Hitler more correctly doubted whether the French would ever undertake an offensive to aid their eastern allies.

The German army employed just 15 battalions in its move into the Rhineland, and only three battalions, aided by such armored vehicles as Germany possessed, actually crossed the Rhine. Their mission was to occupy previously prepared defenses and to await developments. Any French invasion would be an act of war, and for this reason the bulk of the new German army (13 divisions) stood ready close at hand. So was the first Red Plan implemented.[9]

From the Rhineland to Warsaw, 1936–1939

Subsequent planning built on the assumptions first worked out in the 1935 Red Plan. The OKH's Red Plan of June 1937 assumed again a combined Franco-Soviet attack on Germany, with the Red Army's utilizing Czech airfields and Poland neutral as before. Depending on whether Belgium remained neutral, the OKH expected the French to violate Luxembourg's neutrality as they invaded Germany, and German forces were to counterattack the French invader from the northern Rhineland. The main German thrust, however, would still be a lightning attaque brusquée against the Czechs, hitting them before they could properly mobilize.[10] Table 17 depicts the Red Plan's objectives and political setting.

The OKH doubted that the French would stand by their Czech ally unless assured of English support, and even then the Allies would not respond promptly to any German stroke because their pedantic insistence on diplomatic protocol required a justification in terms of international law, the presentation of an ultimatum and, only after it had expired, a conventional mobilization, followed by a declaration of war and then military operations. The OKH thought that legalities would consume three days and mobilization between four and 18 days, allowing the Wehrmacht to dispose of the hapless Czechs without having the worry of a war on two fronts. Table 18 analyzes the Green Plan's elements.

The attack on Czechoslovakia was the main preoccupation of German planners in 1937 and 1938. Figure 21 shows the lines of advance

[9]D. C. Watt, "German Plans for the Reoccupation of the Rhineland: A Note," *Journal of Contemporary History*, Vol. I (1966).

[10]Robertson, op. cit., p. 91.

Table 17

GERMAN "RED" PLAN (WAR IN THE WEST)

Dates	In effect 1937.
Objectives	Defeat enemies in detail, avoiding two-front war.
Threat Assessment	Franco-Soviet attack on Germany.
	Czechs had 17 active divisions, including three semi-mechanized.
	French had 13 divisions immediately available, another 39 within one month.
Concept of Operations	Remain on defensive against French, stage attaque brusquée against Czechs to prevent their airfields' being used by Soviet Air Force. Defensive in west to be vigorous, possible counterattack from northern Rhineland. French expected to violate Luxembourg; Belgian participation a danger.
Available Forces	Germany had ten active and 30 reserve divisions.
Geostrategic Context	Rhineland occupied by German forces, light field fortifications erected.
	Austria independent, hostile to Germany but not to point of war. No longer supported by Italy.
	Spanish Civil War and Italo-French hostility widened scope of danger on French southeastern front (Italy) and created new southwest front (Spain).
	Franco-Soviet Alliance (1935) cooling, no military conversations.
Bilateral Relations	Poland: Nonaggression Pact (1934) still in force. Poles unhappy with Czechs over Teschen district, no friends of Soviets.
	Italy: Linked informally with Germany in Anti-Comintern Pact (1936); cooperating to aid nationalists in Spain.
	Belgium: Germany agreed to respect neutrality, October 1937.

Table 18

GERMAN "GREEN" PLAN

Dates	In effect 1938.
Purpose	To eliminate Czechoslovakia before Franco-Soviet alliance, possibly aided by Britain, could interfere.
Objectives	To destroy Czechoslovakia by splitting Bohemia from Moravia.
Threat Assessment	Czechs had 30 divisions, 19 actives. German-speaking reservists unlikely to obey callup.
	French could mobilize 56 divisions by M+30, including three armored. Green deployed five active and five Landwehr/Reserve divisions in west.
Concept of Operations	Pincer move from Silesia and Austria would prevent Czech army from retiring into eastern Czechoslovakia. Similar attack from Bavaria on Prague to paralyze Czech government and subsidiary attacks from Saxony to pin down Czech forces. Aim was to defeat Czech army in detail.
Available Forces	Germany had 58 divisions, including three panzer and four motorized.
Geostrategic Context	Belgium neutral. No danger of British using airfields or French using Belgian soil for mounting offensive.
	Terrain in disputed Sudetenland region compelled Germans to attack on axes readily anticipated, which had been fortified.
	Anschluss with Austria (March 1938), however, permitted southern pincer to move through easily passable country.
	Siegfried Line in west fortifying Rhineland against France under way but really only a line of bunkers requiring many troops if to be held against a determined attack.
	Poland neutral, hostile to Czechoslovakia and the USSR and cool to nominal ally France. Due to Teschen dispute, Poles deployed five divisions opposite the district.
Bilateral Relations	Poland: Nonaggression Pact sound.
	Italy: Linked informally by Anti-Comintern Pact (1936).
	Belgium: Neutrality affirmed by Germany (1937).

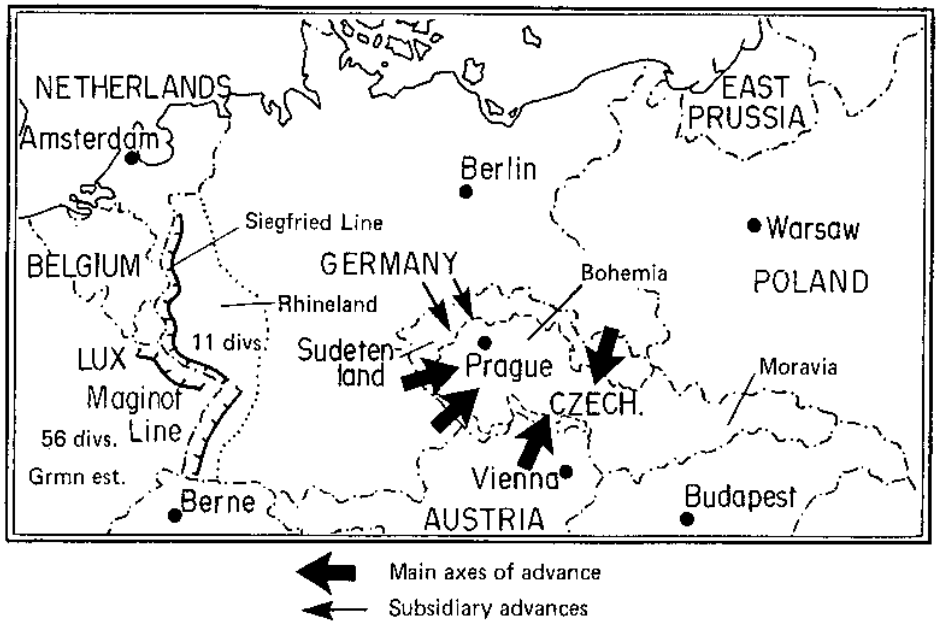

Fig. 21—Plan Green

finally chosen. The main strategic assumption permitting Green was that of Belgian neutrality, for were Belgian airfields available to the French air force the Ruhr would be jeopardized and with it Germany's entire war-making capability. The Chief of the German General Staff, Gen. Ludwig Beck, and the field commander on the western front, Gen. Adam, both believed the French danger real; the latter thought that France would be joined by Britain, Belgium, and the Netherlands and recommended that the Rhineland be evacuated. Adam believed that the British could dispatch five infantry and one armored division to the continent. Beck estimated that France could mobilize three times as many divisions as Germany in the west by M+4. He reckoned that if the Allies fought, they would be fighting not for Czechoslovakia but to defeat the Third Reich, exactly the reasoning that prompted the Allies to draw the line at the Polish corridor a year later. This sort of overestimating the threat had no effect, however, for ultimately the judgment was Hitler's, not the general staff's.[11]

Hitler's response to these arguments was to accelerate work on the Siegfried Line, another shrewd bit of psychological warfare that reinforced French timidity while reassuring German generals. The buildup of the West Wall, the Führer believed, would keep the Belgians neutral by indicating that their country would become the battleground if they had anything to do with the French or the British. Appendix A on fortifications treats both the West Wall and its strategically deceptive role in greater detail.

German military plans for Poland, Operation White, followed Hitler's intuition that France and England would again remain quiet militarily, although he erred, of course, in expecting them to accept the destruction of Poland. He had reckoned that by signing the Nonaggression Pact with the Soviet Union in August he had deprived the Allies of any realistic hope of a second front and so would cause them to desert Poland or press it to settle the Danzig question on Germany's terms.

The Wave System

The expansion of the German army, particularly its reserves, necessitated more elaborate planning for mobilization. Beck had pointed out during the Czech crisis that Germany could not simultaneously mobilize for Operation Green and still concentrate second-line troops in the west. The upshot of this was that after Beck's departure, the OKH

[11]Robertson, op. cit., pp. 127–130; Telford Taylor, *Sword and Swastika* (New York, 1952), pp. 206–212.

drew up the "wave" plan for mobilization in stages, or waves, which brought forces into play according to their quality:

Wave I (actives) M+4 days

Wave II (most recently discharged reservists) M+4

Wave III (Landwehr) M+6, for the Siegfried Line and rear areas

Wave IV (training units) M+7

As before, this permitted the expanded German army—with appropriate peacetime notice—to strike without the delays and loss of surprise entailed by traditional mobilization. Equally important, it concentrated the best armaments on the formations using them, the army's spearhead. This enabled Germany to enjoy the benefits of having a large army on paper but gave the comparatively few units so equipped a greater fighting value than the larger but less well-equipped army that would have resulted had its weapons and vehicles been spread evenly.[12]

Crisis Plan Modification

That the Allies declared war on Germany as a result of its invasion of 1 September 1939 suggested to Hitler that war in the west could not be avoided. When the British rejected his peace overtures once the Poles were defeated, Hitler began to press his generals to plan an offensive in the west before winter put an end to active operations. He wanted the Wehrmacht to strike through the Low Countries and to reach the English Channel, the objective being to seize control of the Flemish and northern French coast while defeating the Allied armies. By depriving the Allied air forces of landing grounds in the Low Countries, this maneuver would secure the Ruhr, and control of the Low Countries enhanced the effectiveness of both the submarines and the Luftwaffe. Never trusting the Soviets, Hitler warned that only a demonstration of German strength could ensure Russian neutrality and preclude the possibility of a war on two fronts. He wanted this offensive to begin in a month.[13]

The reason for Hitler's urgency was his fear that Britain, France, and Belgium were going to stage a concerted attack through the Aachen Gap to Cologne and then into the Ruhr.[14]

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[12]Seaton, op. cit., p. 96.

[13]"Directive Six for the Conduct of the War," October 9, 1939, in H. R. Trevor-Roper (ed.), *Blitzkrieg to Defeat* (New York, 1965), pp. 13–14.

[14]General Franz Halder, "Operational Basis for the First Phase of the French Campaign in 1940," Nuremburg Doc. P-151, European Theater Historical Interrogation [Ethint] Series, Vol. XII (New York, 1979), pp. 7–8.

Plan Yellow. In response to this directive, the OKH prepared the first version of Plan Yellow, the German offensive in the west that would bring such spectactular results within half a year. This plan was intended as a riposte to an Allied advance into Belgium or as a preemptive strike against such an advance.[15] Figure 22 shows its axes of advance. Table 19 lays out its purposes and assumptions. German forces in the west after Poland surrendered, some 75 divisions, were organized into three army groups, A, B, and C, with C in the Rhineland opposite the Maginot Line, B opposite central Belgium and Holland, and A in line opposite southern Belgium. Landwehr divisions held the Siegfried Line opposite the Rhine, and these forces did not figure in any of the plans that followed.

Army Group C likewise held a quiet sector of the front, that opposite the Maginot Line, where its 25 infantry divisions were to discourage the French from transferring field units to the decisive sector: central Belgium.

Yellow-One assigned to Group B the responsibility of attacking Belgium and gave it 37 divisions, including most (eight armored and two motorized) of the available armor. The attack would be through the Maastricht Appendix (Dutch Limburg) north of heavily fortified Liège, which itself would be bypassed in this and in all subsequent revisions of Plan Yellow. The advent of motor transport allowed the spearpoint of the attack to remain independent of the railroads that the forts blocked. The 1st Army would overrun Holland north of the Rhine (Maas, in Dutch territory), its infantry taking its main cities as light forces occupied northeastern Holland, the provinces east of the Ysselmeer (Zuider Zee). The purpose of these operations was to deny Holland to the RAF.

The 6th Army, which contained much of the group's armor, would cross the Maas south of Venlo. This army, in effect the spearhead of the entire attack, would penetrate the Albert Canal and aim to fight the Belgian army in the vicinity of Hasselt. Its object was to destroy the Belgian army, encircling it and fixing it against its own border defenses.[16] Subsequently, 6th Army's units would continue west through Ghent and Bruges to the Channel, rolling up Ostende, Dunkirk, and Calais.

Germany's parachute division would land near Ghent, disrupting the Belgian mobilization and throwing its plans into chaos. Hitler had

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[15]Telford Taylor, *The March of Conquest* (New York, 1958), pp. 155–180; H. A. Jacobsen and J. Rohwer, *Decisive Battles of World War Two: The German View* (New York, 1965), pp. 29–42; and L. F. Ellis, *The War in France and Flanders 1939–1940* (London, 1953), Supplement, pp. 333–353, treat the plans' evolution generally.

[16]Halder, op. cit., p. 8.

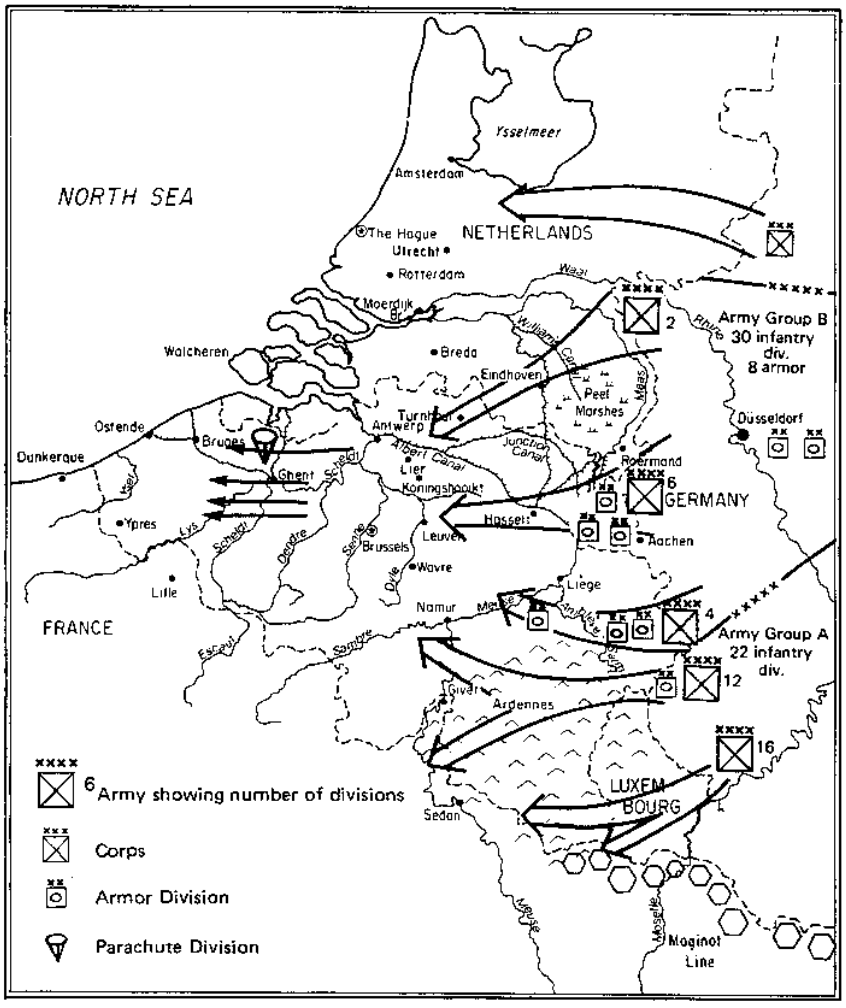

Fig. 22—Original OKH plan, October 1939

Table 19

GERMAN "YELLOW" PLAN-ONE

Dates	In effect October 1939.
Purpose	To seize English Channel ports of Belgium and northern France while defeating defending Allied forces before winter ended chance for further operations.
Objectives	To secure Ruhr from RAF and to obtain bases for air/U-boat war against Great Britain. Secondarily, to intimidate Soviets in east.
Threat Assessment	France and Britain had 69 divisions combined.
	Belgium had 21 divisions.
	Holland had eight reserve divisions of little value.
Concept of Operations	Armor-led thrust through Maastricht Appendix of Holland, bypassing fortifications at Liège and Namur, and proceeding along axis Brussels-Ghent-Bruges-Calais. Airborne units to disrupt Belgian mobilization with landing near Ghent. Large forces to overrun Holland. Campaign expected to terminate along Somme River in northern France.
Available Forces	Germany had 75 divisions, eight armored.
Geostrategic Context	Britain and France fully mobilized, latter at maximum strength, former's contribution very slow to arrive. Maginot Line manned. Allies avoiding strategic bombing or more than limited local offensives.
	Poland destroyed, partitioned between Soviet Union and Germany. Soviets agreed on peaceful partition of Eastern Europe, their gaining Finland, Baltic states (Lithuania, Latvia, and Estonia) and influence in Rumania.
	Italy officially neutral but tying down French in southeast and in North Africa as well as British armor in Egypt.

purposely withheld the paratroopers from Poland, wanting to maximize their surprise effect. The thinking behind this mission drew on the Belgian army's retreat into the National Redoubt in 1914, from which it had sortied to strike German forces during the Battle of the Marne before retreating to the coast. This time the Belgian army would be shattered first.

To accomplish this, the 4th Army, also heavily endowed with armor, would advance to the Meuse between Liège and Namur, bypassing both fortified cities, and would converge on Hasselt if ordered.

The 2nd Army would cross the Maas just south of Nijmegen and move southwest across Holland into Belgium, screening the right flank of the 6th Army as it joined with the 4th to deliver the main attack near Hasselt.

Army Group A would bypass Liège to the south, but its main function was to protect B's flank from any French counterstroke. The 12th Army would cross the Meuse well to the south of Namur just north of Sedan. Army Group B's 16th Army would occupy the Grand Duchy of Luxembourg and the Belgian province of Luxembourg—the Ardennes, employing for this purpose mountain divisions.

The campaign foreseen would terminate somewhere along the line of the Somme, where the front would stabilize. This was a tightly controlled plan, with follow-up decisions left to the OKH, not to field commanders. The OKH held a substantial reserve of armor and infantry to permit it to determine the future.

The Search for a Decisive Victory. The German aim was to avoid a war of positions that could easily become the war of attrition Germany could never win. Consequently, discussion turned on the concept of "decisive" victory, meaning not one that necessarily compelled the opponent to capitulate but one that was decisive in terms of the theater and so destroyed the enemy's will to fight. Not so much an annihilating victory as a potent combination of military defeat and political exhaustion would end the war with Germany the victor.

The OKH's initial plan met with solid objections, both political and military. Politically, it put the onus on Germany of violating Belgian, Luxembourgeois, and Dutch neutrality, reinforcing Germany's position as an international outlaw in the eyes of neutrals. Some soldiers wanted to await the expected French violation of Belgian neutrality, a course politically safer and one that relieved the German army of having to attack foes who might fall back on prepared positions or at any rate on a succession of water lines. Tactically, Plan Yellow deployed all its strength on a narrow front between the Maginot Line and the Dutch rivers that could not allow German forces to stage flanking attacks. If implemented in the fall of 1939, it meant rushing semi-trained units to the battlefield, for otherwise Germany did not yet have the reserves to sustain a frontal attack long enough to achieve decisive results.[17]

Estimated movements for Plan Yellow showed that Germany did not have time on its side. Because units were dispersed for concealment purposes, to concentrate troops on the Belgian frontier would require three days. It would take four days to cross the border and stage the

[17]John Keegan, *Rundstedt* (New York, 1971), p. 78.

first assault on the Albert Canal-Meuse line. And there was no way of knowing how long is would take to breach this strong prepared position, so the Allies would have at least a week to reinforce Belgium.[18] Plan Yellow lacked sufficient motorized units to achieve its objectives with the necessary speed. Certainly, Holland was bad tank country: marshy, criss-crossed by canals and rivers, and easily inundated. More fundamentally, Plan Yellow overrated the Wehrmacht's maneuverability. Apart from perhaps 20 armored and motorized infantry divisions, German units' transportation had not advanced beyond the First World War. They depended on rail for strategic movement and on horse-drawn transport for all but the battlefield. They could not keep up with the tanks.

Even if everything proceeded according to plan, argued General Leeb, the Wehrmacht's leading expert on defensive warfare and Commander in Chief of Group C, Plan Yellow could not necessarily win a tactical victory. The French, he believed, had lately strengthened their defenses in the northeast. The fallacy of Germany's making a major initial commitment of forces to central and northern Belgium alone was that the French would never send so many forces there as to imperil their own border (a very wrong guess, as is turned out). Since France had no fewer than 13 double-tracked rail lines pointing at Belgium or Luxembourg, the Allies could readily concentrate their forces at the endangered point. The danger of getting bogged down in positional warfare remained, and an attack on the Low Countries also brought these countries' armies into the balance. Even if this attack were to succeed in overrunning the Low Countries and seizing the Channel ports, the Allied armies could pull back to the line of the River Somme, a shorter line than the French frontier.[19]

Finally, the Navy disputed whether possession of the Channel ports would measurably increase the U-boats' effectiveness. In the First World War, it had not been enough, and the Channel ports were too close to the RAF's bases for much use in the present war.

This last argument, that such an offensive could not secure decisive results, struck a chord, for it was agreed that Germany's economy could not sustain a long war. More important was the potential effect of a protracted campaign on the Russians, whose precarious loyalty could not be guaranteed if the army spent itself on a war of attrition in northern France. A German army still intact secured Russian neutrality and forestalled a two-front war. Thus, the Campaign in the West

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[18]Halder, op. cit., p. 8.

[19]Taylor, *The March of Conquest*, op. cit., p. 47.

had to secure decisive results. Plan Yellow merely pushed the Allied armies back from the German border; it did not finish them.[20]

These military objections raised matters that were fundamentally political. The problem of responding to the Allied attack would be met by striking first, smashing the Belgian army in its forward positions and in effect catching the presumed Allied advance "on the hop" before it could support the Belgians or threaten the Ruhr. The implicit question here was what it would take to destroy the Allies' will to wage war. Hitler had the final say, and he instructed the OKH to aim first at the destruction of the Allied armies and second at seizing the Low Countries' coast.

Another Schlieffen Plan? The upshot was a new plan, Yellow-Two, which shifted the center of gravity toward the south and eliminated a major atack on Holland. Army Group B was enlarged by six divisions, giving it nine armored and four motorized divisions among its 43. Its attack would be on a narrower front, with its four armies being lined up in echelon, the northernmost 18th Army screening the armored thrust of the motorized-armored 6th Army, while the 4th Army, still heavily motorized and armored, would be screened to its south by the footbound 2nd Army.

The OKH recognized that for Yellow-One to succeed, a substantial effort would have to be made by Army Group A attacking south out of Luxembourg. This would prevent the French from rapidly reinforcing their forces in Belgium.

Army Group A, however, was weakened to 22 divisions, none of them armored, while it was given the mission of actually attacking the French line north of Sedan and, if successful, of penetrating toward Laon. Its 4th Army, too, received a new mission: to operate south of the Meuse, bypassing Liège to seize the crossings at Huy above it.

Army Group C remained at 18 divisions, all infantry, and the general reserve contained six infantry divisions, one armored, and two motorized divisions.

One misconception arising from these plans is that they duplicated the Schlieffen Plan of 1914. The two plans resembled one another in that the initial advance went through the Aachen Gap and Liège. Thereafter, all resemblance ceased. The Schlieffen Plan aimed to win the war at one stroke; neither Yellow-One nor Yellow-Two aimed to do more than secure the Channel coast. The Schlieffen Plan sought total victory in a single western campaign by so overweighting the German right that the French army would attack victoriously in Alsace and Lorraine as the German army wheeled through Belgium, taking Paris

[20]Ibid., pp. 44–46.

and then catching the French army in its rear, thus annihilating the French army and nation. The first two Yellow Plans aimed only at defeating the Allied armies in the north, preparatory either to an air assault on Britain or to a second-stage offensive against the French along the Somme.

As matters developed, reservations among the military, notably Rundstedt, Commander in Chief of Army Group A, and his Chief of Staff, Manstein, coincided with the Führer's own thinking to produce a variation. Hitler liked Yellow-Two's concentration of troops south of Liège, and he favored aiming for a breakthrough on the axis Reims-Amiens to destroy the Anglo-French armies completely.

Rundstedt and Manstein's objection to Yellow-Two was that their Army Group A was understrength to accomplish its twin objectives: securing B's flanks and pushing ahead to the Channel at Amiens on the mouth of the Somme. The French could readily deliver a counterstroke as Army Group A overreached itself trying to forestall the French from falling back on the Somme. Worse, if Army Group B were held by the Belgians, then Army Group A would have to encircle the Belgian army, whose destruction remained a first priority in Yellow-Two.

The Manstein Plan. Few planners at OKH shared Hitler's belief that an allied preemptive move into Belgium was likely. More likely was a German surprise attack on Belgium, which would produce radically different timings. The decisive encounter would be much to the west, near Brussels. This made Army Group A's role all the more important and made crossing the Meuse above Namur very essential if a French counterattack were to be defeated. At the end of October, Hitler had independently come up with the idea of attempting an armor-led breakthrough through Arlon and Tintigny toward Sedan. He agreed with the Rundstedt-Manstein objections and directed that armor allocated to Army Group B, comprising one armored and one motorized division, be given to Army Group A for the Sedan operation. Its mission in this plan was to seize the west bank of the Meuse at Sedan and await events. Hitler, ever wanting to retain control over the army, was not prepared at this time to put everything on the Manstein-Rundstedt Plan, only to direct that plans be flexible enough to shift armor quickly from Army Group B to Army Group A should the latter score promising successes in its area.[21]

The Luftwaffe, too, protested the shift away from Holland, whose airfields it required and, above all, desired to keep out of British hands. Having as its head the Deputy Führer Hermann Goering, a well-placed

[21]Ellis, op. cit., p. 337; Trevor-Roper, op. cit., pp. 16–17.

advocate indeed, the air force had its wishes granted, and the 18th Army was assigned to deal with Holland. These modifications constituted Yellow-Three.

Hitler continued to press the generals for an immediate offensive, and they continued to stall and raise objections at every level. Eleven dates were set from early November onward and cancelled at nearly the last moment on grounds of weather, for persistent low-lying fog precluded the Luftwaffe's providing tactical support. Rain swelled the rivers the Wehrmacht planned to cross and created the inundations that made the Low Countries such an obstacle. Indeed, the OKH cleverly inserted a number of checkpoints in every plan whereby any planned attack could be halted up to eight hours before its scheduled launch for one reason or another.[22] This pattern of planned but postponed offensives continued into January. The capture of Yellow-Three Plan when a German aircraft crash-landed in Belgium in January led to a new plan, Yellow-Four, at the end of January, that did not differ significantly from its predecessor. However, it again changed the role of the 4th Army, which now was to seize the Meuse bridgeheads north of Givet to block any possible French penetration of the Meuse Valley by way of the Sambre River. It gave the 12th (infantry) Army the task of establishing a bridgehead at Sedan higher still on the Meuse.

Once again, it was Hitler who gave the decisive impetus. It was now apparent, however, that the underlying political assumption of close Allied-Belgian collaboration was untrue. The Mechelen incident demonstrated that it was politically impossible for French troops to enter Belgium before Germany. The Germans were also aware that word of their planned but aborted offensives had leaked quickly. No one believed the Allies would remain in their trenches if the Germans attacked the Low Countries; the British wanted to keep the Low Countries out of German hands, and the French wanted to add their armies to the Allied order of battle. Now that the political underpinnings of Yellow One–Four had been falsified, a new political direction was required. At a conference of commanders in mid-February, Hitler opined that Germany's tanks were dispersed too widely, wasted even on quiet sectors, and that Army Group A lacked the armor necessary to get beyond the Meuse. He surmised that the Allies still expected the main offensive to be borne by Army Group B; hence, the German advance should be along the line least expected but already planned to some extent. OKH had some wind of Allied thinking and now expected their invasion of Belgium to trigger a full-scale Allied advance into Belgium. Air reconnaissance and agents confirmed this. War

[22]Taylor, *The March of Conquest*, op. cit., pp. 53–54.

games played at German HQ that week supported the conclusion that A lacked sufficient armor, and on 18 February the OKH transferred nearly all available armor and two armies, the 2nd and 4th, to Rundstedt's command.[23] Table 20 states the aims and context and the resulting plan.

Table 20

GERMAN "YELLOW" PLAN-FIVE (MANSTEIN PLAN)

Dates	In effect winter, 1939-1940.
Purpose	To smash Allied armies in northeast France to end British participation in war. Secondarily, to prevent French from establishing a stable front along the Somme River. Ultimately, to permit attack on Soviet Union.
Objectives	To administer decisive defeat to Franco-British-Belgian armies in northeastern France and Flanders, while overrunning Holland.
Threat Assessment	France/Britain, 81 infantry, six armored divisions.
	Belgium had 21 divisions.
	Holland had eight.
Concept of Operations	To employ armored thrust around right flank of Allied forces advancing into Belgium in response to a slightly earlier German invasion along expected axis. Armored spearhead to proceed through central Luxembourg and Belgian Ardennes, crossing Meuse at Sedan, then at its own pace pushing ahead to mouth of Somme. Would dislocate Allied command structure and isolate the substantial forces in Belgium. An unspecified second stage of operations would be required to terminate hostilities.
Available Forces	Germany had 150 divisions, 12 armored.
	Italy deployed 20 divisions on the frontier with France.
Geostrategic Context	Chamberlain still British Prime Minister, affording some hope of a negotiated end to war.
	Soviet relations cordial.
	Belgium-Netherlands faithfully neutral, no joint planning with one another or with Allies.
	Allied forces growing steadily, especially French with aid of North American supply. New aircraft, tanks, and armored formations being formed.

[23]Ellis, op. cit., p. 340.

Helping make this daring plan possible was the growth in German forces since the war's outbreak, 49 additional divisions. The German army intensively critiqued its own performance in the war against Poland and worked hard to bring its lower-scale divisions up to scratch. Especially at the level of small unit tactics, these studies along with the consequent rigorous training rectified many of the shortcoming that the Wehrmacht's senior commanders knew well.[24] Four new armored divisions had been created, and these joined the armored spearhead under Rundstedt's command. The believers in Yellow-Five had good reason for their optimism.

The Manstein Plan, as Yellow-Five is known to history, deployed four armies and one ad hoc armored group as part of Army Group A. The armored group was to advance across central Luxembourg, with half its units prepared to cross the Meuse north of Sedan and the other half south of the city. The armor would then proceed west, in effect reversing roles, for the armor would shield the advancing infantry armies to its north from any French thrust from the region of Paris, which was where the French could be expected, as they had in August 1914, to concentrate troops for such a counterstroke. The 4th Army, with the footbound 12th securing its southern flank, would proceed on the axis Malmédy-Maubeuge-Cambrai to Abbeville on the Channel. The 16th Army farther south would protect against a French counterstroke, while the 4th Army to the north covered against a counterstroke by the more mobile forces in Belgium. Figure 23 shows both the Manstein Plan's axes of advance in the Low Countries and its expectation of achieving a crushing theater victory.

The strategic goal of Army Group A was to prevent the French from establishing a line of defense on the Somme; strategically, Army Group A's mission was to destroy the Anglo-French forces in Belgium and northern France. The plan provided no instructions for the armored spearhead after seizing the Meuse bridgehead at Sedan.[25]

Whether Army Group A would proceed northwest along the French border or west toward the Channel could not be laid down in the plan. Its subsequent direction would depend on Army Group B's success and on its own ability to cross the Meuse. But at least now a dash to the Channel to separate the Allied armies in the northwest could be envisaged.[26]

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[24]Williamson Murray, "The German Response to Victory in Poland," *Armed Forces & Society*, Vol. VII (Winter 1981).

[25]Heinz Guderian, *Panzer Leader* (London, 1974), p. 92.

[26]Halder, op. cit., pp. 11, 13.

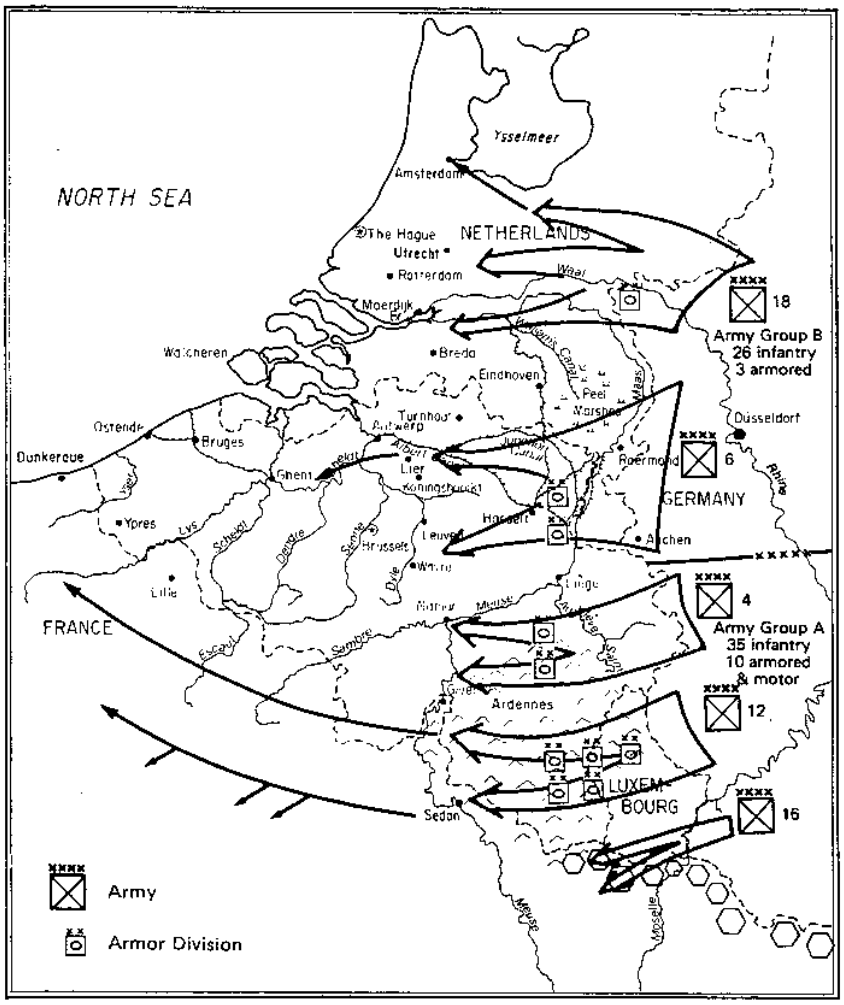

Fig. 23—The Manstein Plan

There was no expectation that the blow would lead to France's collapse (that would require a follow-up offensive), only that it would neutralize Britain's will to wage war. The political basis of the Manstein Plan, very much in tune with the Führer's thinking, was that if France lost her ally and paymaster, she would make peace on her own, so permitting operations against the Soviet Union to proceed without the danger of a two-front war.[27]

Army Group B, now reduced in strength, was simply to cross into Holland and Belgium and engage the Allied armies, pinning them while A did its work.

The 6th Army, comprising 17 infantry divisions and a mechanized corps (two armored and one motorized division), deployed north of Liège as before and was to strike southwestward toward Ostende and Calais. A panzer division was to spearhead the attack through the Aachen Gap, as airborne troops seized the Meuse bridges guarded by the Belgian fort at Eben Emael.

Although Holland was a side-show, Yellow-Five reinserted that country. The constant in plans against the Dutch was to employ light forces and surprise to prevent a Dutch retirement behind the line of "Fortress Holland," the quadrilateral bounded by the Maas-Rhine estuary on the south and on the east by the Ysselmeer and extensive inundations between it and the estuary. These positions are discussed and illustrated in Chapter VI. Second, the German plan aimed to sever the link between the Dutch and Belgian armies (which the Germans incorrectly believed existed). For this reason, a subsidiary thrust south of the Maas to Breda was included.[28]

The shifting of the attack to Army Group A had ruled out the employment of airborne forces in Belgium, for they could not readily have been supported by mobile forces under the final Yellow Plan. Instead, they were detailed to seize bridges giving access to Fortress Holland's southern approaches, the bridges spanning the Holland Deep near Dordrecht and Moerdijk and those over the Maas south of Rotterdam. It was expected that their presence would paralyze communications and mobilization while spreading confusion and tying down reserves trying to stem the main effort.[29]

Feints? Preparations for the invasion of Denmark and Norway delayed further detailed planning. In the meantime, a new Green Plan was prepared to use the 19 infantry divisions allocated to Army Group

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[27]Halder, op. cit.

[28]Ellis, op. cit., pp. 339–340.

[29]Taylor, *The March of Conquest*, op. cit., pp. 184, 190, 193.

C opposite the Maginot Line in an attack focused on the Saar area should Group A's advance succeed and it need flank protection.

Another scheme, Brown Plan, was also drawn up at this time by which some 30–35 divisions would concentrate on the Rhine opposite the line Mulhouse-Belfort, cross the Rhine in 12 assault crossings with the main attack north of Basel through the Belfort Gap (left unfortified before the First World War in hopes of thereby canalizing any German offensive) toward Dijon, flanking the prepared defenses of the Rhine. This was a feint intended to explain away the presence of units massing against Luxembourg and to mislead the French into keeping the Maginot Line's interval troops up to strength.[30]

There was some talk of involving up to 20 divisions from Italy, then still neutral. Ever prudent, the OKH estimated that the availabiity of Italian divisions would depend on the degree of the German armies' success. The Italians themselves were not enthusiastic, preferring involvement in the Balkans. The project of employing Italian troops foundered on the conundrum that if Army Group A failed and the Italians were truly needed, Italy would remain neutral. Conversely, they would be available only if the major danger were past and they were no longer needed.[31] Figure 24 shows these three feints in terms of the theater.

GERMAN AIR PLANNING

The Rejection of Strategic Bombing

When the Luftwaffe was established in 1935, one of its first official publications outlined four potential wartime missions:

1. Establishing air superiority.
2. Strategic (i.e., independent) bombing.
3. Battlefield interdiction (i.e., operations against reserves and rear areas).
4. Tactical air support of ground units.

Although a strong current within the Luftwaffe clung to strategic bombing, projects for an independent role for the air force foundered on economic realities and the lessons of German air involvement (1936–1938) in the Spanish Civil War. Proponents of strategic bombing learned in Spain that German aircraft and pilots could not

[30]Halder, op. cit.

[31]Taylor, *The March of Conquest*, op. cit., p. 176.

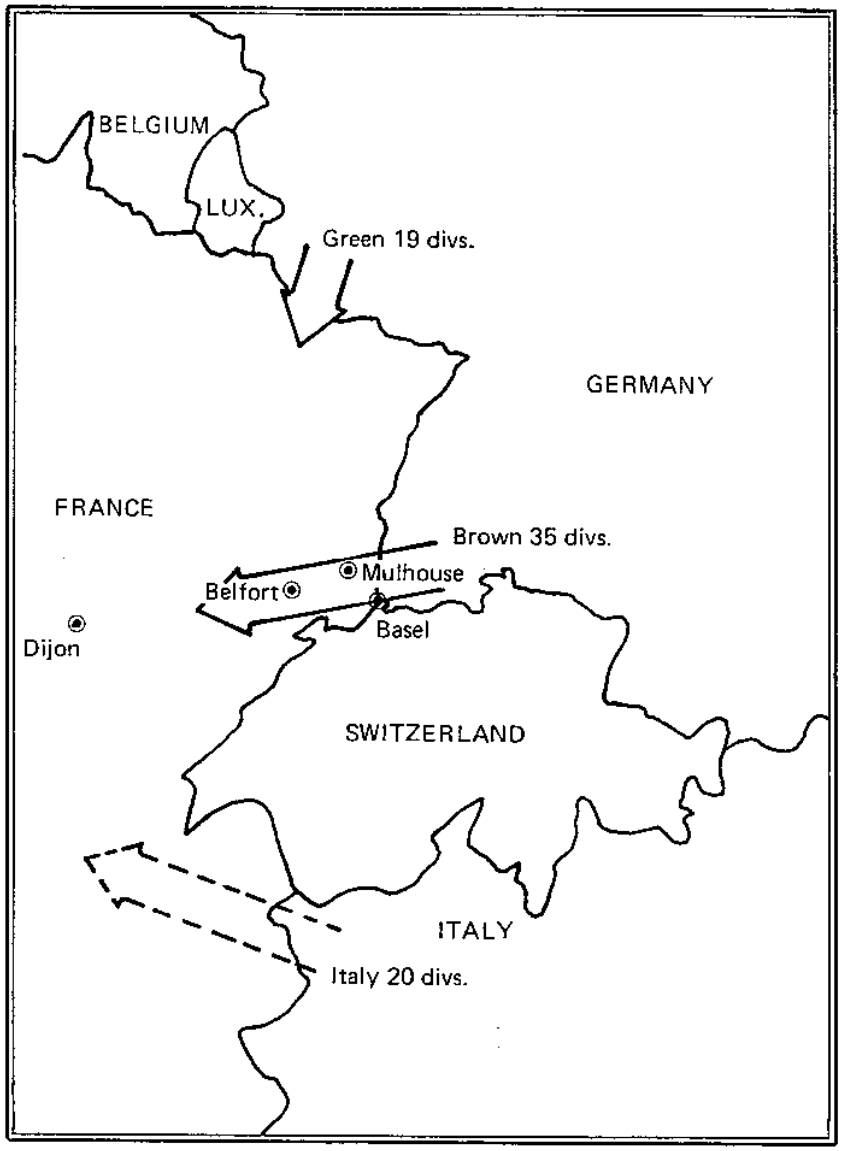

Fig. 24—German strategic alternatives/strategic deceptions

accurately bomb even those few strategic targets Spain offered. High-altitude horizontal bombing was impossible given the bombsights available. The one role at which the air force shone was in dive-bombing, epecially in tactical support of nationalist troops, a role forced upon the Condor Legion by the rebels' lack of artillery.[32]

The Luftwaffe rated the defensive strength of fighters, antiaircraft artillery, and civil defense preparations very highly, leading it to discount still further the effectiveness of independent operations. Initial air force expansion schemes built two bombers for every fighter; after 1937, the proportions were more nearly equal.[33]

Hitler's Role

These limits also reflected Hitler's own inclinations. He saw attacks on civilian targets as both inhumane and, perhaps more to the point, as likely to lead to swift retaliation from the Allies, something he was not confident the German people could withstand. The Führer's leanings mattered much, for the air force of all the German armed services was most closely linked with the Nazi Party and most reflected the grand vision of its political patron.[34]

The other factors working against strategic bombing were economic. By the late 1930s, the German economy was seriously overheated because of the rapid pace rearmament had taken. Air rearmament's cost was disproportionately great considering its benefits. Because so much of the aircraft industry depended upon imported steels, nonferrous metals, and rubber, all materials greatly in demand, air rearmament put the Reichsmark under heavy pressure. A falling currency raised the twin prospects of having to choose between reducing the civilian standard of living or accepting inflation, both politically risky.[35]

The broad strategic goals of German rearmament aimed to focus limited resources upon immediately attainable ends. Until 1939, these were limited to Central Europe, and the air force leadership had good reason for confidence that the Führer's masterly blend of diplomacy and bluster could prevent general European war until much later.

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[32]R. J. Overy, *The Air War 1939–1945* (London, 1980), p. 14.

[33]Ibid., p. 20.

[34]R. J. Overy, "Hitler and Air Strategy," *Journal of Contemporary History*, Vol. 15 (1980).

[35]Harold Farber, *The Luftwaffe* (New York, 1977) [condensed Luftwaffe-USAF staff history]. R. J. Overy, "From 'Uralbomber' to 'Amerikabomber,'" *Journal of Strategic Studies* (September 1978); Carr, op. cit., p. 56 and passim for the argument on how economic-political weakness restrained Hitler.

Consequently, air rearmament concentrated on fighters, medium bombers, and dive-bombers and projected heavy bombers only for 1942 and after.

The emphasis on quantity also went hand in hand with the air force's psychological function, which was to intimidate both Central European nations and England and France into thinking their capitals could be blitzed upon the outbreak of war with enormous civilian casualties. Throughout the appeasement era, Hitler saw to it that a succession of military and civilian visitors witnessed the full strength of the Luftwaffe so that they might draw the desired conclusions.

In the context of a Central European war, two-engined medium bombers and dive-bombers made abundant sense. Strategic bombing against foes such as Czechoslovakia had no purpose. In terms of rapidity of results, bombing even armaments factories could not help in a war of 6–9 weeks. Then, too, the Skoda works at Pilsen had to be taken intact to sustain the next stage.[36]

For this complex of reasons, Hitler concentrated rearmament on areas that could reap immediate dividends, not projects to bear fruit only by 1944–1946. Looking to the short term, the Luftwaffe opted for familiar short-range fighters, such as the Me-108, or such medium bombers as the Do-17 or dive-bombers such as the famous *Stuka*, the Ju-87. Politically, strategic bombing stood to unite its opponents and alienate such neutrals as the United States. More tangibly, bombing civilian targets reduced the harvest of industrial plant, a motive for expansion that mattered much given Germany's economic straits and Hitler's grandiose plans.

Doctrine

The German air force, consequently, had not developed a doctrine of strategic bombing when war broke out in 1939 and employed its forces in 1940 only on the basis of plans reached with local commanders to achieve tactical objectives. Its tactical doctrine, which formed the basis for the local plans prepared for war in the west, aimed to achieve in this order:

1. Air superiority by destroying opposing air forces with immediate attacks on bases.
2. Tactical support of ground units.
3. Battlefield interdiction by destroying rail lines.

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[36]Williamson Murray, "The Luftwaffe before the Second World War: A Mission, A Strategy?" *Journal of Strategic Studies*, Vol. IV (September 1981), p. 217.

Planning a Strategic Air Offensive against Britain, 1938-1939

Hitherto, with the resources available for rearmament limited by the overstretched prewar German economy, the Luftwaffe had been limited to medium-range planes that performed best in supporting the army. As Hitler's objectives had been limited to much weaker opponents, the air force's role had gone by default.

The Schullung Plan and the various revisions of Plan Green envisaged simply a tactical role for the Luftwaffe. Not until August 1938 was a war with England spoken of as a "probability," not a "possibility" as before. A cursory investigation soon revealed that the Luftwaffe's bombers had at most a radius of 430 miles and that with half their full payload. It concluded that raids from German bases could have at best a nuisance value. If serious bombing were planned, the staff appreciation noted, bases in the Low Countries would be required.[37]

A subsequent evaluation in May 1939 on the prospects for blockading England by air similarly concluded that no significant results could be achieved as the vital southwestern and western harbors were out of range. The panicky reaction of the Chamberlain government at the height of the Czech crisis (when it had distributed gas masks and dug trenches in central London's parks) stimulated renewed interest in the potential of terroristic bombing of the metropolis. But the May 1939 evaluation recommended against this, arguing that to do so would only stiffen British resolve while incurring heavy losses at the hands of London's strengthened defenses.

Orders given to Luftflotte Two in July of 1939 directed its bombers to the British aircraft industry, oil and food storage facilities, and port facilities in general. This targeting of the aircraft industry as a first priority grew out of an awareness that permanent command of the air, the essential requirement for independent air action, could be maintained not by simply destroying the existing RAF but by preventing its losses from being replaced.[38]

The Navy did not begin anything like strategic air planning until 1939 either, appropriately targeting ports and shipping for bombing and coastal estuaries and shipping lanes for aerial mining. Unfortunately, its air service lacked the appropriate torpedo bomber to carry out the former and the trained air crews for the latter highly specialized task.

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[37]Williamson Murray, *Strategy for Defeat: The Luftwaffe, 1933-1945* (Maxwell AFB, Alabama, 1983), pp. 18-19.

[38]Andrew Cooper, *The German Air Force* (London, 1981), p. 121.

Still, it remained at the war's outbreak that the air force had not even carried out map exercises to prepare a strategic bombing campaign against Britain.[39]

Crisis Plan Modification, 1939-1940

Hitler's last prewar directive severely limited air operations. Unless the Allies advanced into the neutral Low Countries, the air role was to be entirely defensive. London was not be attacked; others would have to incur the opprobrium of first killing civilians. The outbreak of hostilities did not appreciably change these instructions, which now authorized attacks on British naval units but not on British soil. The Führer vetoed a Goering proposal to raid Scapa Flow. Not until the middle of September did he approve overflights of the French border. His motivation in all this was less humanitarian than political, to avoid providing a pretext for an Allied aerial offensive while the German military effort was concentrated in the east.[40]

Hitler was determined to avoid an air war unless it offered decisive results, and in the autumn of 1939 he directed the Luftwaffe to stage an "annihilating blow to the English economy," the sort of mission that had never entirely been absent from air force strategists' thinking but which only now received political sanction. Hitler ranked objectives as:

1. Ports, bombing where possible and mining in the west.
2. Merchant shipping.
3. Oil stores, food stocks, and depots.
4. Interuption of troop convoys to France.
5. Factories vital to the war effort: aircraft, munitions, etc.

Results already achieved by daylight bombing, especially by dive-bombing, suggested that so carefully targeted an air war could yet achieve decisive results, driving the British from the war, thus ending France's participation without ruinous positional warfare. The earliest versions of Plan Yellow aimed to secure the airfields in the Low Countries by which just such a decisive air offensive could be launched.[41]

The adoption of the Manstein Plan returned the air force to its more familiar tactical role in the blitzkrieg. In effect, however, a choice had been made to knock out one enemy decisively rather than the other. As planning went forward for Plan Yellow that autumn,

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[39]Overy, *Air War*, op. cit., p. 8.

[40]Taylor, *Sword and Swastika*, op. cit., p. 344.

[41]Trevor-Roper, op. cit., p. 19.

Hitler remained at pains to forbid attacks on the populous cities of Belgium and Holland "without compelling military necessity."[42] The tactical plans prepared for 1940 specified an immediate attack on Allied airfields closest to the action, some 50 French, 11 Belgian and Dutch, and 9 RAF bases. The Germans believed that air superiority, once established, would remain and that they could disable the Allied medium bombers.

Following these attacks, the air force would support ground operations, the details of which were to be worked out between air and ground commanders. For example, General Heinz Guderian, commanding the leading armored divisions crossing the Meuse at Sedan, worked it out with his air counterpart that the latter's support should not be a single overwhelming blow corresponding to a World War I barrage but what he saw as a psychologically more unnerving continuous rain of dive-bombing.[43] As a last priority, the Luftwaffe could turn its attentions to lines of communication, principally railroads. To facilitate these roles, air units were to move forward to vacated Allied landing grounds to expand their radius and to keep up with ground forces while minimizing the chances for successful retaliation.

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[42]Ibid., p. 17.

[43]Guderian, op. cit., p. 98.

VI. ALLIED CRISIS PLAN MODIFICATION, SEPTEMBER 1939–MAY 1940[1]

NEITHER WAR NOR PEACE, AUTUMN 1939

The Forces on Hand: Estimates and Realities

Fourteen days after war was declared, the Allies deployed 57 divisions in the northeast. (See Table 21 and Appendix B on the French and British armies.) Against these legions stood 44 German divisions, of which only 12 were regulars.

The French had estimated that the Germans had only 21 divisions in the west at the outbreak of war, and by mid-September they counted some 40 divisions. By December, they counted 120 and believed another 30 were forming, both figures approximately correct. British military intelligence reckoned that merely garrisoning Poland (and keeping an eye on its nominal ally the Soviet Union) would oblige Germany to retain some 40 divisions in the east.[2] Broadly speaking, this was correct. The east took some 60 divisions at the time France fell.

Table 21

ALLIED FORCES IN SEPTEMBER 1939

4	British infantry divisions
44	French active divisions:
	7 motorized
	3 North African
	3 other colonial
	10 unmotorized infantry
	3 cavalry
	2 light mechanized (DLM)
16	"A" reserve
9	"B" reserve

NOTE: See Appendix B for more on the French and British armies.

[1]This chapter follows Brian Bond, *France and Belgium* (London, 1975); Jean Vanwelkenhuyzen, *Neutralité Armée* (Brussels, 1979); Chapman, op. cit.; and Gunsburg, op. cit.

[2]Chiefs of Staff estimate, June 3, 1939, COS 905, CAB 53/49.

The failure of intelligence lay not in miscounting divisional HQs but in taking all divisions as equivalent and in overestimating the strength of the Siegfried Line. The French believed that since the West Wall had to be held in depth to be effective, it contained substantial numbers of actives. In failing fully to appreciate the meaning of the wave system, particularly how it distributed first-rate equipment only to front-line formations, Allied intelligence exaggerated German strength. The 32 reserve divisions on the Siegfried Line were composed of men from the 3rd, 4th, even 5th waves, best compared with French "B" divisions, not with the Wehrmacht engaged in Poland. One might term this overestimating the threat by quality rather than by quantity.

Limited Offensives and Counterattacks

Gamelin viewed the Germans as aiming for a decisive success, which from his point of view could only be obtained on the Belgian Plain, not through Luxembourg. On the second day of war he told the British CIGS General Ironside that he hoped the Germans would attack through Luxembourg or Belgium, as they were bad tank country. He thought it unlikely the Germans would launch an attack anywhere near the Maginot Line, not even the Saar Gap. The French commander, ever mindful of the casualties sustained in the First World War, very much respected the Siegfried Line, and wanted the Germans to strike, as this would allow the Allies to fight an enemy who was not behind prepared positions—the very circumstances that had brought victory in 1918.[3]

His offensive plans at this stage were for three advances into "No Man's Land" to form three salients. Then, within two weeks, French attacks would "squeeze out the pockets" and so face the Siegfried Line by 17 September.[4] These were modelled on the carefully prepared limited advances Pétain designed after the mutinies of 1917 had nearly destroyed the French army. They sought simply to secure well defined objectives with a minimum of losses through the concentration of overwhelming firepower. After these, Gamelin foresaw bringing up his heavy artillery and trying some "experiments" on the Siegfried Line. French military intelligence thought that the entire French heavy artillery would be required to breach the Siegfried Line even to a width of a few kilometers. And to do that would expend the entire French supply of ammunition. The experiments would be minimal.

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[3]R. MacLæod and D. Kelly (eds.), *The Ironside Diaries* (London, 1962), p. 115.

[4]Ibid., p. 101.

The French launched one such modest offensive in the direction of Saarbrücken on 7 September, although it served primarily to placate the anguished Poles. Nine divisions crossed the German frontier on a nine-mile front, meeting no appreciable opposition but taking five days to advance five miles and occupy some 20 abandoned German villages. The French halted in front of the Siegfried Line, just out of range of German artillery. The speed with which Poland collapsed removed the rationale for any further offensives, and at month's end they pulled back to the Maginot Line.

By the end of September, German units moved west in force; French intelligence counted 124 divisions on the western front. This figure was substantially accurate. Gamelin now expected the Germans to attack the French frontier directly somewhere between Basel and Luxembourg. He told Ironside that they would stage a pincer offensive, aiming to isolate the Maginot Line by taking its corners. After breaking through, they would try to roll up the line. In view of this possibility Gamelin's plan was to fall back on the Maginot Line and to concentrate reserves at Paris.[5]

This sort of thinking well accorded with the British, who had concluded that any kind of offensive to aid the Poles would merely jeopardize the Allies' chances of ultimate victory. The only offensive worth pursuing, concluded the British, was economic. Even on this "front," there was little likelihood of the blockade's triggering either the political unrest or the financial collapse that could bring down Hitler.

Lessons from Poland

French military intelligence compiled volumes of analyses on the Polish campaign, noting in particular the blitzkrieg's use of deep armored penetration and of bombing rearward areas. And the French were well aware that the Germans had converted their four light divisions to armored divisions, giving them ten.

French strategists appraised the blitzkrieg as another form of the attaque brusquée, and as such not calling for any revolution in doctrine. Gamelin concluded that front lines should as a result be held lightly and reserves—in which armor figured prominently already—held near at hand for immediate counteroffensives at the site of the penetration. Reflecting this view, reserve divisions were allocated to hold the front itself, while actives formed the reserve slightly behind each front. Mobile units, DLMs, cavalry, motorized infantry, and the new

[5]"Notes of a Meeting between Gen. Gamelin and the Chief of the Imperial General Staff," October 6, 1939, Annex 3, COS (39) 162 (5), CAB 80/104.

all-armored divisions, the Divisions Cuirasses Réserves (DCR) formed after the outbreak of war by the advent of the powerful Char B tank, in armor and protection equal to Germany's best, would form a second echelon farther to the rear. In this thinking, the mobile reserves would deal with any armored breakthroughs, while infantry were to stand their ground, preventing any exploitation of an initial breakthrough. The same tactical doctrine lay behind French thinking on the Maginot Line. If the Germans broke through, the war would move past and around them, so field divisions would have to deal with them. Accordingly, 26 divisions held the intervals between individual fortresses or remained to the rear to deal with any breakthroughs. By and large, however, armored formations were assigned to back up infantry in lightly fortified regions where sustained penetration was more likely.[6]

Gamelin most feared that this might happen against the light field fortifications west of Longwy on the Luxembourg frontier (without violating Belgian neutrality). Originally, the northeast front left 49 divisions and 13 division-equivalents in fortress troops on the Saar front with only 22 facing Belgium and 20 more on the Swiss and Italian frontiers. Beginning in October, the French redeployed, shifting 18 additional divisions to the Belgian frontier and in November moving the 7th Army from general reserve to the northeast. Most signficantly, the French created additional armored forces, the four DCRs, five light cavalry divisions (one regiment of armor and another of motorized cavalry), and a new DLM.

The resulting dispositions promised a supple variant on the strategy that had saved France in 1918. Gamelin needed only to find the appropriate counterstroke that would bring victory.

The Air Forces

French policy decisively rejected any early resort of strategic bombing for fear of German retaliation. They pressed the British hard for a larger share of RAF fighters to defend both French cities and Allied forces advancing into Belgium, but the British refused to divert aircraft from Fighter Command.[7]

The British did send the AASF as planned, but only the first echelon of battle bombers, half the ten squadrons planned, actually could go for lack of airfields in northern France. In January the AASF

[6]Gunsburg, op. cit., pp. 92–93. See Appendix B for details of the different types of French divisions.

[7]"Anglo-French Conversations between the Chiefs of Staff and the French High Command," meetings of September 21, October 6, and October 24, 1939, annexed to COS (39) 162 (5), CAB 80/104.

was removed from Bomber Command and merged with the separate army cooperation aircraft of the BEF to form the British Air Force in France (BAFF) with its own commander. It was to operate in accord with the day-to-day needs of the Allies.

Protracted discussions produced only the general agreement that the RAF would initiate strategic bombing only when the German offensive began in the west. Heavy bombers of Bomber Command would strike at the German army's communications and concentration areas west of the Rhine and against rail yards east of the Rhine. If and only if the Cabinet in London approved, German synthetic oil plants in the Ruhr would be hit, but approval for such attacks, with their potential for civilian casualties would depend on whether the Germans had already begun attacking nonmilitary targets.

The medium bombers of the BAFF would cooperate with ground forces, essentially along the lines envisaged by the French. They would bomb enemy columns on the march, especially at traffic bottlenecks. Pilots were to bomb buildings in such a way that they would collapse across the road. Table 22 compares the differing Allied air strategies in the Phoney War.

THE PROBLEM OF BELGIUM IN THE TWILIGHT WAR

The Belgian army also mobilized exactly according to plan, having prudently begun in August. Its eight active divisions, the two divisions of Chasseurs Ardennais, and the first eight reserve divisions were at their stations by the outbreak of war. Not until early November did the second reserve of eight divisions follow.

The Belgians fully appreciated that the French intended for them to bear the brunt of the fighting. As the price for their acquiescence in Allied plans, they sought ironclad assurances that the Allies would advance to and defend the line that protected the greatest amount of their nation—the Albert Canal. Any Allied help short of the Albert Canal could easily lead to the two corps guarding Liège being cut off and lost. If the Allies were to take up positions in Belgium before a German attack, they would have to give political assurances concerning the future of the Belgian Congo and postwar reparations. The Belgians recognized that even rumors of military conversations exposed Belgium to a preemptive attack from Germany.

The French wanted the Belgians to prepare a defensible position and to invite the Allied armies to occupy these lines before hostilities began, a risk the Belgians were unwilling to run. The French feared that an advance to the Albert Canal, anticipated to require six days,

Table 22

ALLIED AIR CHOICES DURING THE PHONEY WAR

	French	British
Strategic Bombing Policy	No first use; only if France endangered. Restricted otherwise to military targets avoiding civilian casualties.	No first use; only in retaliation to German strategic bombing. Then to be used to reduce scale of attack on Britain or disable Ruhr industries.
Reasons	No defenses (warning, fighters, or antiaircraft guns). Paris command-control center undefended, aircraft industry equally vulnerable. Maintain moral high ground.	Technology favors defense. Preserve air crews as trainers, cadres for expansion later. Bomber offensive unlikely to be decisive in repelling initial German attack. Maintain moral high ground.
Tactical Bombing Policy	Retard German adance through Low Countries.	Initiate bombing only at moment it can tip balance in campaign. Carefully weigh cost/benefits.
Technique	Select targets according to tactical situation, aiming for troops on the march, trains en route, defiles, road/rail junctions. Otherwise assist local commanders.	Reconnoiter fixed targets in advance, i.e., bridges, rail yards, army bases, and supply dumps, facilities likely to be of military use.
Strategic Objective	Defeat German offensive on land, aiding army in every way.	Weaken German ability to wage protracted conflict, concentrating on targets less likely to be defended but likely to be found.

would expose their forces to the risks not only of an encounter battle in unprepared and unreconnoitered ground but to crippling air bombardment of their exposed lines of communication.[8]

These objectives were as incompatible militarily as they were politically, and no agreement proved possible.

Options

Figure 25 shows the different prepared positions or suitable river lines that a defending force could use. The Allies ruled out one course of action at the outset, that of standing on the French frontier in their

[8]Chapman, op. cit., p. 74.

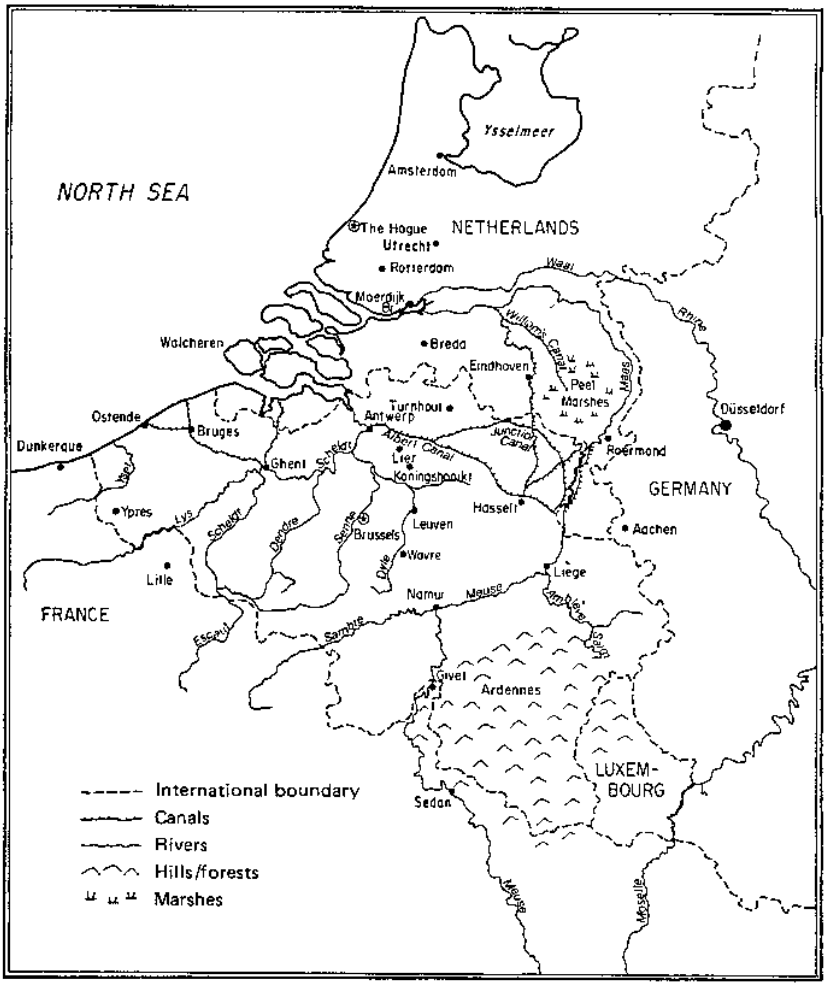

Fig. 25—Belgian canals and rivers

prepared positions. These defenses, meager as they were, would form part of the defense in depth with which the French proposed to meet the Germans.[9] The French did not propose, however, to mount a strictly linear defense, least of all one that left vital industries within artillery range.

Plan E (Escaut). The French had studied the problem and had two plans at hand, depending on how and how promptly the Belgians responded to a German attack. If the Belgians did not promptly call for Allied assistance, Gamelin would implement Plan E.

Plan E (for Escaut, the French name of the river better known as the Scheldt) entailed a short advance by the French 1st Army, the BEF on its left and the French 16th Corps on the extreme left into Belgium to hold the Escaut, anchoring the Allied left flank on the Belgian National Redoubt linking Antwerp and Ghent and its right on the French frontier defenses at Maulde, where the Escaut entered Belgium. Mobile units, cavalry in the case of the BEF and DLMs in the French case, would precede the advance. Such an advance protected Lille, made the most of works already completed, and minimized the risks of air interdiction. The BEF's advance of just 15 km could be carried out overnight, an important consideration in this and subsequent plans. The French advance on the British left would require two nights and one day. Plan E anticipated that the Belgian Chasseurs would hold the Meuse above Namur long enough.

Once the Escaut Line was held, the Allies would decide their next move. Table 23 outlines its risks and payoffs.

The drawback of the Escaut Line was its length. As Figure 26 shows, it formed a reverse salient, lengthening the Allied line by 40 miles. Neither did it offer to salvage many retreating Belgian troops, most of whose formations would be destroyed in a protracted fighting retreat. As a result, the Escaut Line appreciably thinned Allied strength at its most exposed point. Politically, Plan E fell far short of the assistance the Belgians desired, giving them no incentive to prepare positions or to invite the Allies in ahead of time.

Plan D (Dyle). Gamelin suggested the second plan, Plan D, in early November. Plan D (for Dyle River) should not be confused with the prewar Plan D. Plan D (Dyle) would be implemented if the Belgians requested help in sufficient time, something to be judged on the spot. It called for an advance averaging 50 miles beyond the Scheldt, one that incorporated more modern elements of the Belgian defense

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[9]J. R. Colville, *Man of Valour* (London, 1972), and James Butler, *Grand Strategy II* (London, 1957), pp. 151, 181, illustrate just how weak these defenses were: a ditch, an incomplete barbed wire obstacle, and a line of blockhouses.

Table 23

FRENCH PLAN E (ESCAUT RIVER)

Dates	In effect 1939–1940.
Purpose	To establish defensible front sufficiently far into Belgium to remove the Lille metropolitan area from the front. Second, to secure Belgium's Channel ports.
Objectives	To advance Allied left flank along River Escaut (Scheldt) from French border as far as Antwerp.
Concept of Operations	Mobile units advancing by day and foot/railbound troops by night to take up partially prepared positions. Short march minimizes risks of air interdiction, allowing for defenses to be prepared along Scheldt even if Belgians fail to hold either Albert Canal or K-W Lines.
Available Forces	France: XVI Corps (one motorized, two infantry divisions). 1st Army (two mechanized, three motorized, and five infantry divisions).
	Britain: five infantry divisions with motor transport (Fall 1939).
	Belgium: Army to retreat to Escaut River between Ghent and Antwerp.
Political Requirements	German violation of Belgium, no necessary invitation from Belgium.
Drawbacks	Lengthened Allied line, creating reverse salient and adding 40 miles to total frontage while abandoning prepared French frontier defenses.
	Little likelihood of incorporating any Belgian troops in Allied order of battle; however, Belgian troops used to delay German forces.
	Politically distasteful to Belgians.
Risks	Loss of Belgian population, industrial centers, Scheldt Estuary, airfields.
Payoffs	Kept Belgian Channel ports in Allied hands. Established defensible line removing Lille industrial zone from front lines. Safest course of action for Allied army, virtually eliminating danger of air interdiction while en route.
	Little danger of encounter battle without prepared positions.

system, in particular the K-W Line. Although farther from the frontier and thus logistically more demanding, its distance was not necessarily a drawback, given French objectives in moving the field of battle away from France. Moreover, the Dyle Line was 40 miles shorter than the frontier line, 80 miles shorter than the Escaut Line. Figure 27 gives some idea of the additional distance involved, but also its reduced frontage. It also promised to salvage more of the Belgian army. It

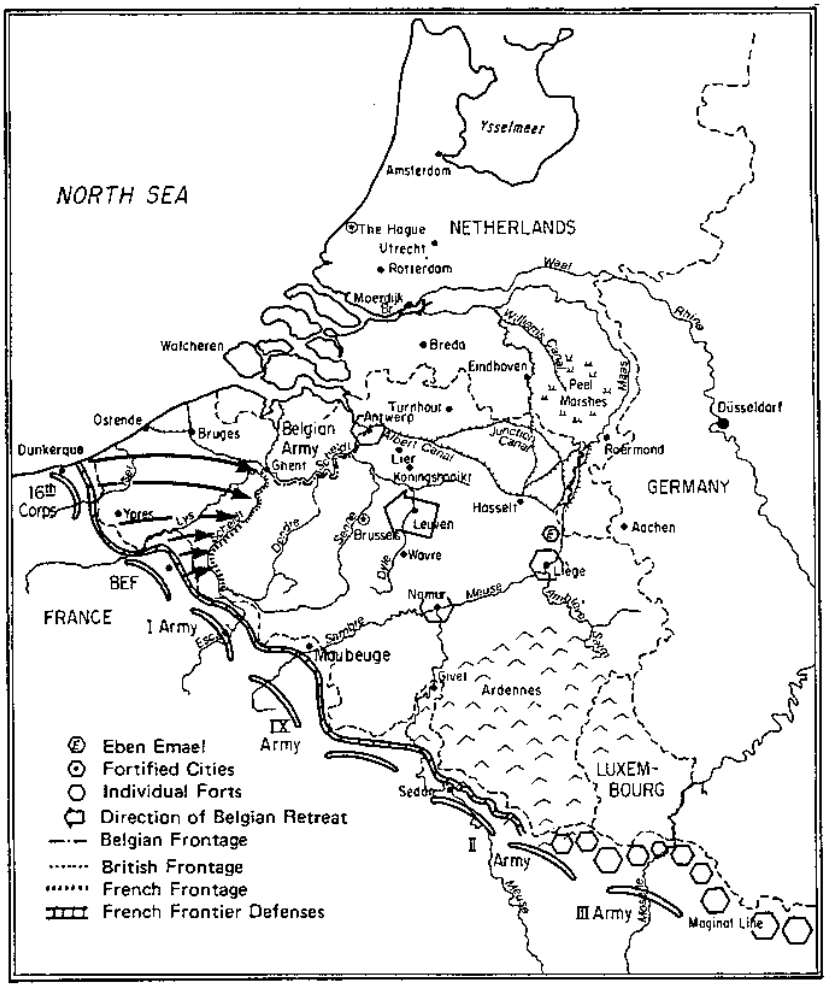

Fig. 26—The Allied advance under Plan E (Escaut)

involved more French units, including the 9th Army, which would advance into the Ardennes to hold the segment of the front between Givet and Namur.[10]

As for which plan to choose in Belgium, both Allies agreed in September that neither was politically practical without Belgian agreement. Table 24 details the advantages and dangers of Plan D. Yet equally unsound militarily was the idea of attempting to meet an advance in defenses improvised in the face of a German blitz. Only if there were prepared defenses awaiting them could the Allied armies safely advance through open country to fight the enemy.

Plan D offered just this assurance.

The Belgians had prepared the K-W Line as a fallback defensive line linking Antwerp and Namur and incorporating the Dyle as well as the fortifications of Namur and Antwerp. Because it incorporated existing French frontier defenses into its rear, it created an in-depth defensive position, the sort that had stemmed the German tide in 1918 and would do so again. The 16th Corps was given a slightly different mission in Plan D—to push ahead to Antwerp, perhaps even to the Dutch islands of Beveland South and Walcheren. Plan D also entailed the Allies' holding the sector of the Meuse between Huy and Namur, while placing their armor to the rear as a maneuverable reserve. It would facilitate the Belgians' holding the Albert Canal-Meuse Line.

Its one weakness lay in the Gembloux Gap between Wavre and Namur, but the Belgians had been preparing a tank ditch, bunkers, and pillboxes since earlier in the year, and the gap did offer a predictable venue for the expected encounter battle to which armor would be canalized.

Gamelin was more concerned about the threat of air interdiction. The Escaut Plan entailed only a one-day march for the BEF and its French confrères, but Plan D with its average 60-mile advance meant several days' marching across roads likely to be packed with refugees and under continuous air attack. To no avail, he continued to press the British to send more fighter squadrons to France.

The choice between Plan D and Plan E starkly posed the dilemma Allied strategists faced throughout the winter of 1939–1940. What was militarily desirable was politically unrealistic; what was politically possible left France dangerously exposed, its security resting in the feeble hands of the neighbor who refused any prehostilities cooperation.

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[10]Chapman, op. cit., pp. 75–77.

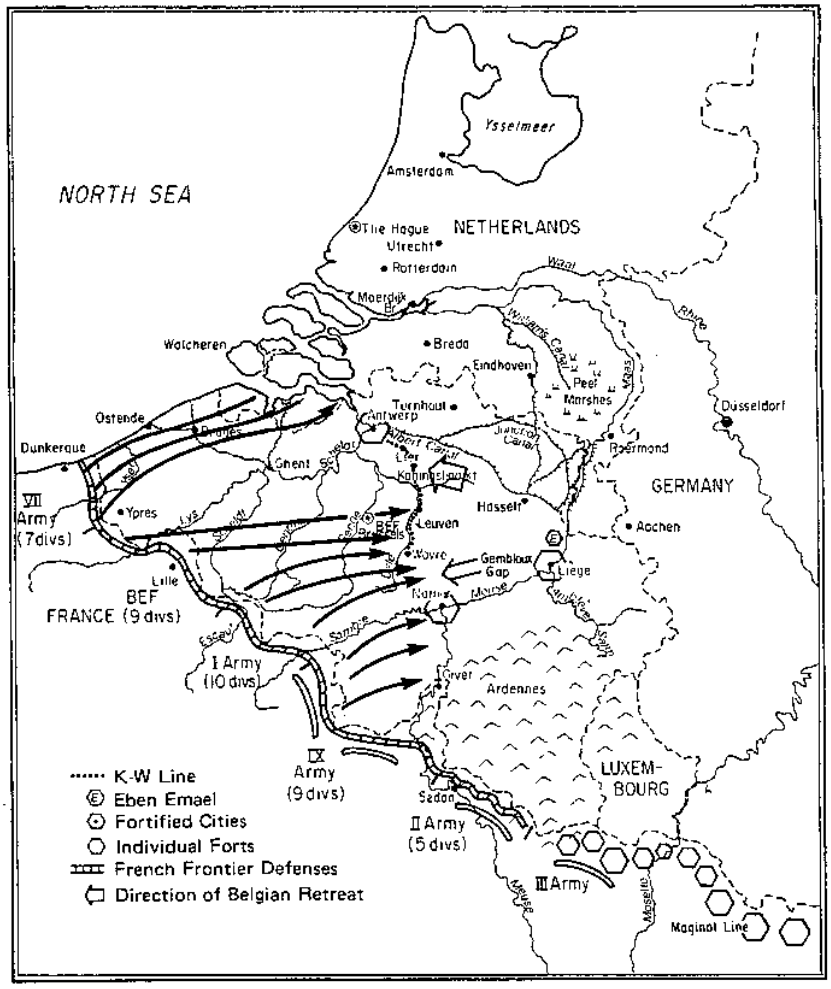


Fig. 27—The Allied advance under Plan D (Dyle)

Table 24

FRENCH PLAN D (DYLE RIVER)

Dates	In effect 1939–1940.
Purpose	To establish defensible front far enough into Belgium to hold major population centers and to employ Belgian army and its prepared defense line. Shortens frontage.
Objectives	To establish continuous front in Belgium from Givet to Namur, then north along K-W Line from Namur to Antwerp.
Concept of Operations	Franco-British forces to advance as far as "K-W Line" (Dyle River) and French 9th Army to hold Ardennes front from Givet to Namur. Mobile forces spearhead advance, while foot and railbound troops moving by night follow to occupy previously prepared positions to avoid battle in Gembloux Gap. Shortens front by 40 miles; by 80 miles compared with Plan E.
Available Forces	French: 7th Army (one mech, two motorized and four infantry divs). 1st Army (two mech, three motorized, five infantry divs). 9th Army (two cavalry, one motorized, and six infantry divs).
	British: eight infantry divisions with motor transport.
	Belgian: 22 divisions.
Military Requirements	Belgians to hold Albert Canal Line for five days and to have K-W (i.e., Namur-Antwerp) Line prepared in advance.
Political Requirements	Belgians request aid immediately upon German attack.
Risks	Air interdiction. Encounter battle between Brussels and Namur, i.e., in the Gembloux Gap, with German armor.
Payoffs	Establish continuous front with 22 Belgian divisions and prepared positions. Secure most populous regions of Belgium and thereby gain Belgian consent for cooperation. Deny Low Countries airfields to Germany for possible air war against Great Britain. Secure Channel ports and Scheldt Estuary for Allied shipping.

Belgian Policy

The Belgians at the end of September definitely rejected formal staff talks with the Allies or anything compromising their neutrality. The recent fate of Poland suggested all too plainly how limited any Allied help was likely to be. Unofficial contacts between the general staffs continued, for in the event of war the Belgians had an interest in facilitating an Allied advance into their country.

They touted their accomplishments in fortifying the K-W Line, claiming incorrectly that they were installing a steel antitank barrier at the rate of 300 meters a day. They informed the British they would hold the Albert Canal Line in strength and were preparing the K-W Line as a fallback position in the event of a catastrophe. In reality, the Belgian deployment was as follows:

Albert Canal	nine active divisions at mobilization
Ardennes	two motorized cavalry and two Chasseur divisions at mobilization
K-W Line	three active and six reserve divisions at M+7 days

That is, their deployment reflected a prior commitment to a defense-in-depth strategy, not to a linear defense near the frontier.

The Ardennes group would carry out demolitions and fight only to delay a precipitate breakthrough before retreating to hold the Meuse between Huy and Namur, securing thus the southern part of the salient formed by the line Albert Canal-Liège-Meuse-Namur and linking at Namur with French units in Belgium north of Givet.

Thus informed, Gamelin decided for Plan D on November 15, subject to two conditions:

- The Belgians must resist a German invasion, and
- The Belgians must prepare the K-W Line.

Should the Germans invade Belgium and encounter no resistance, then Plan E would be implemented. Early in November, however, a fresh complication arose.

THE PROBLEM OF HOLLAND

German Threat to Holland

The Belgian foreign minister on 7 November inquired of Gamelin what the Allies' attitude would be if the Germans were to invade Holland but not Belgium. The Germans had rather heavy-handedly asked the Dutch to allow Germans troops across their frontier, and the Dutch had refused.[11] Subsequent alarms of worse were all too real, but weather forced the Germans to abandon their planned autumn

[11]Chapman, op. cit., p. 77.

offensive. What the Belgians wanted was an Allied advance to the Albert Canal, something out of the question on purely military grounds. Nothing came of the Belgian inquiry at the diplomatic level; however, it raised troubling issues. If the Germans pursued such "salami tactics," as they had previously to such effect, they could outflank Belgium's defenses and acquire the air bases necessary for a strategic air offensive against Britain.

The Dutch Queen and King Leopold met in early November to discuss a common effort, but the Dutch government turned down any efforts to plan their defenses jointly. All that resulted was a joint appeal for peace.

Dutch Strategy

The German behavior, however, persuaded the Dutch they should resist actively the invasion that now seemed all too likely. The mobilized Dutch army comprised 400,000 men, more than the BEF. Unfortunately, it was an army consisting almost entirely of short-service conscripts or reservists and virtually without artillery and armor.

The Netherlands' 520-km frontier with Germany left no question of its army's defending the whole, but in 1939–1940 its army had two important prepared positions:

1. **Fortress Holland**, which embraced the Hague, Rotterdam, Amsterdam, and Utrecht. The Rhine-Maas estuary covered its south, and the Ysselmeer protected part of its eastern flank. Between Muiden (near Amsterdam) and the Rhine, old fortifications and inundations planned for wartime offered additional security. The key to the position in this waterlogged country was the bridges over the Rhine and Maas, something the Dutch were well aware of.
2. **The Peel-Grebbe Line** completed in the late 1930s was the preferred line of defense, for it removed the fighting from the Dutch civilian population while incorporating newer works and extensive inundations. It extended from the Peel Marshes in Dutch Limburg to the Ysselmeer north of Amersfoort. The line exploited the marshes and the easily flooded Geld Valley. The Noorder Canal covered its southern extension, and the Maas protected its northern extension north of the Rhine. Its prepared fortifications north of the Rhine incorporated tank traps, casemates, and bunkers to create a position of considerable strength. (Six of the army's eight divisions held this line. The other two remained in reserve

within Fortress Holland.)[12] Unfortunately, it could rather easily be outflanked from Belgian territory east of the Albert Canal, as Fig. 28 illustrates.

The Dutch army comprised eight divisions, each of 12 battalions. Thus, some accounts give Dutch strength as 16 divisions, which is misleading. Although officers, NCOs, and specialists were professionals, the bulk of the ranks were conscripts serving 11-month terms. Its armor consisted of two armored car squadrons, but its lack of artillery was its greatest weakness.

The Dutch general staff prepared two plans, Orange and Brown, represented in Table 25 and Fig. 29:

1. **Plan Orange** concentrated the Dutch army on the Peel Line in Dutch Limburg south of the Rhine, an ideal disposition if the Dutch forces were to form a continuous front with the Belgians.
2. **Plan Brown**, by contrast, concentrated Dutch forces north of the Rhine and Maas, placing them in an ideal position to hold "Fortress Holland," which embraced the great population centers Amsterdam, Rotterdam, Utrecht, and The Hague.

The Dutch government was determined to avoid anything smacking of collaboration with the Allies, but the Commander in Chief of the Dutch forces was less reticent. Like his Belgian counterparts, he approached the Allies unofficially, pointing out that his dispositions reflected Plan Orange and proposing that the Allies send forces to hold the islands at the mouth of the Scheldt and to hold north Brabant.

The whole business, characteristic of the "twilight war" raised the question of what the Allied response should be if Germany moved against the Netherlands alone. From this beginning emerged a modified plan, Plan D-Breda Variant.

THE CHOICE: THE BREDA VARIANT TO PLAN D

Gamelin fairly leaped at the Dutch proposal, suggesting that the highly mobile 7th Army (Gen. Henri Giraud) hold the line Willemstad-Rosendaal-Antwerp. It would bridge the gap between the Belgian army on the Albert Canal and the Dutch army holding the Peel Line. This could work if only the Dutch held the Peel Line long enough. Figure 30 shows this advance and gives some idea of the

[12]Taylor, *March of Conquest*, op. cit., pp. 188–189.

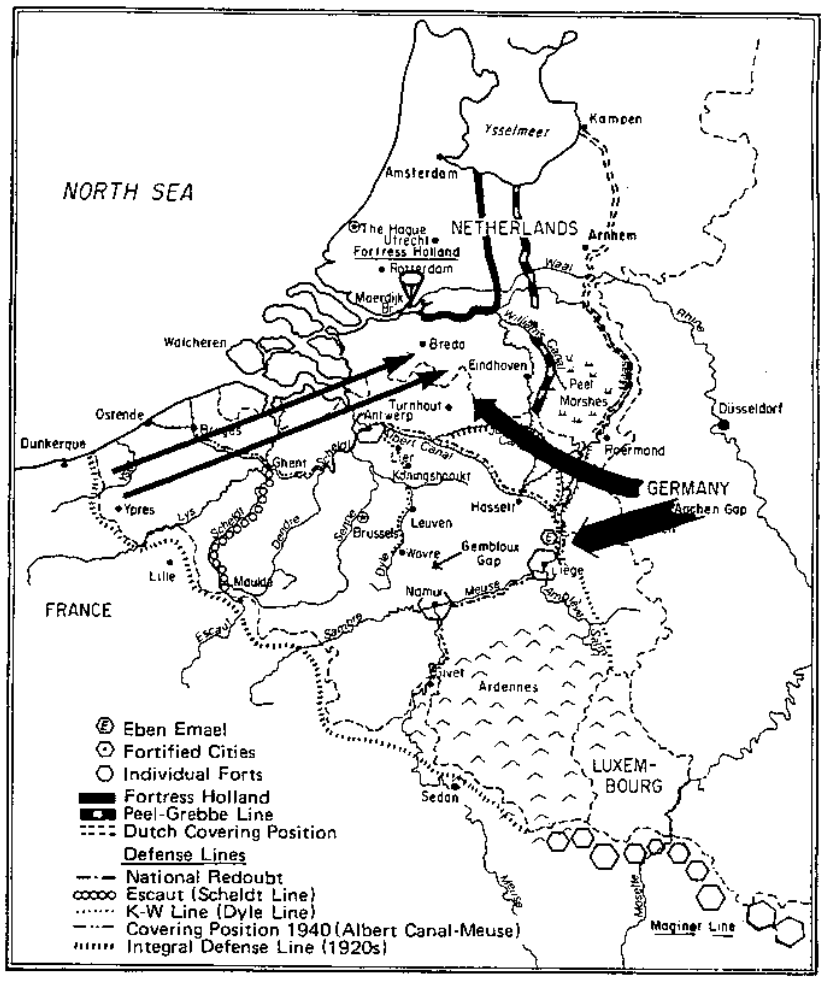


Fig. 28—The German threat to Holland's defenses

Table 25

DUTCH DEFENSIVE CHOICES, 1940

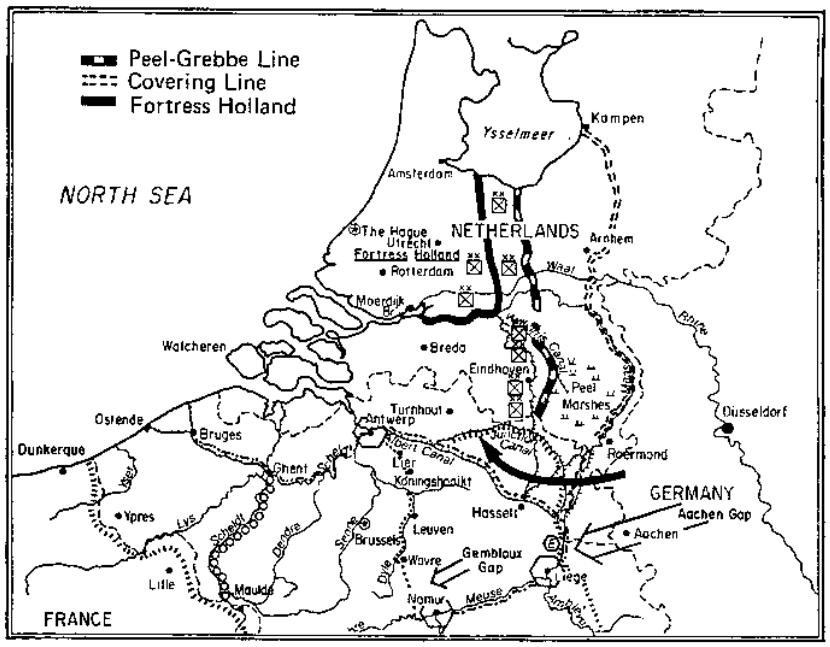
	Plan Orange	Plan Brown
Strategic Purpose	Hold couverture at optimally defensible line.	Maintain essential security in war of attrition.
Defense Lines	Peel-Grebbe Line highly modern line of bunkers, casemates, and tank traps.	Fortress Holland of obsolete works, planned inundations.
General Terrain	Marshy in south and center. Lightly populated.	Marshy except on southern flank of Waal and Maas Rivers and Holland Deep. Near cities.
Concepts of Operations	1. Write off indefensible eastern Netherlands. 2. Counter outflanking move by Germans cutting through Limburg and northeast Belgium. 3. Meet German move along Maas-Rhine Valleys.	1. Write off indefensible eastern Holland and central Holland, controlling only population centers and ports. 2. Concentrate army to defend shortened line.
Dispositions of Army	Weighted toward Belgian border.	Concentrated in Fortress Holland.
Risks	Defeat of largely reservist army in pitched battle. Outflanking by armored forces.	Airborne forces seizing vital bridges over rivers or Holland Deep (Moerdijk Bridge) and so turning entire position.

difficulties involved. Table 26 explains in detail what was behind the Breda Plan.

Assumptions about the Low Countries

That the Dutch should have inquired prompted Gamelin to think they would cooperate. The French believed that Belgian military dispositions were framed with a view toward securing the Dutch province of Zeeland to keep the Scheldt open in the event of an attack on Holland alone. A mobile force in Dutch territory on the Belgian left at the mouth of the Scheldt could secure a continuous front and would steady both their armies.

Gamelin thought that the Belgians on the Albert Canal planned to retreat in a northwesterly direction, severing any link with the French



The deployment depicted is that under Plan Orange.
Plan Brown deployed the same forces within Fortress Holland.

Fig. 29—Dutch defensive choices

while remaining close enough to Dutch forces in the Peel-Grebbe Line This was wrong. Under Belgian plans the three forward-most Belgian divisions were to retire, preserving their link with the French, not to retreat into the fortress of Antwerp, as the French mistakenly thought.

In fact, the Belgians knew of the Dutch plans but questioned whether the Dutch army, which had not fought a war since Napoleonic times, could hold the Peel Line. They may equally have questioned whether the Dutch *would* hold that exposed line rather than retire to Fortress Holland. By no means overconfident themselves, the Belgian high command opposed committing troops north of the Albert Canal.

The resulting French plan reflected none of this.[13]

[13]Don W. Alexander, "Repercussions of the Breda Variant," *French Historical Studies* (Spring 1974).

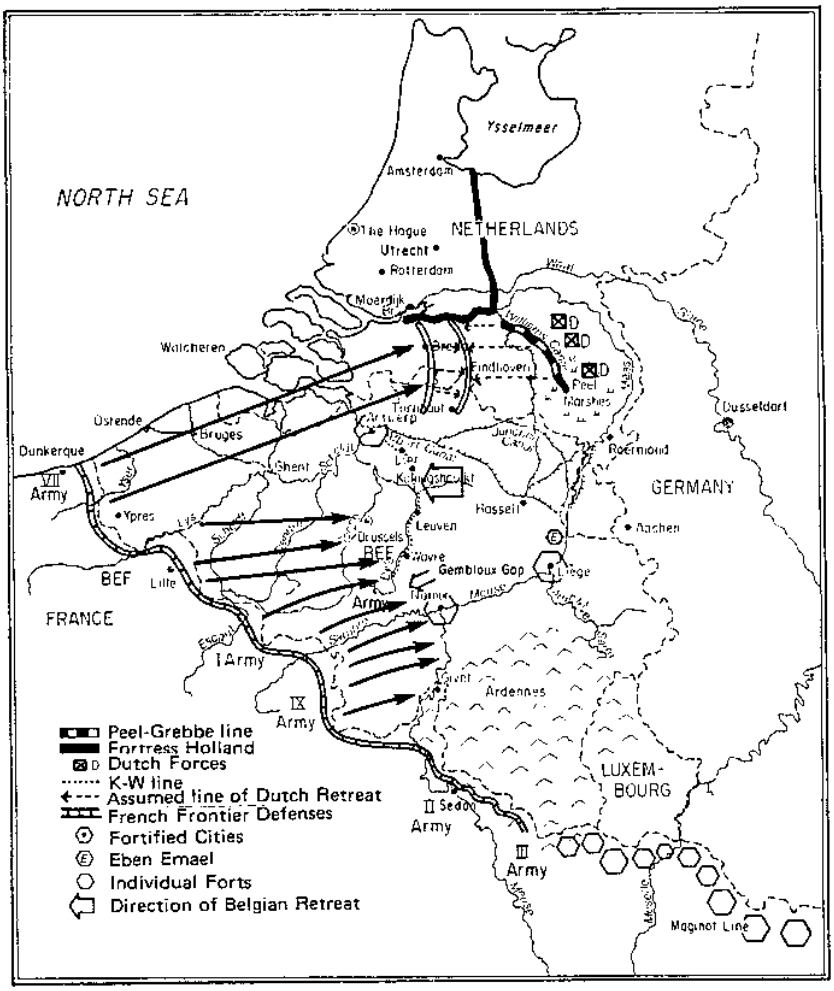


Fig. 30—The Allied advance under the Breda Variant to Plan D

Table 26

FRENCH BREDA VARIANT TO PLAN D

Dates	In effect 1940.
Purpose	To establish a continuous front along the K-W (Antwerp-Namur) Line incorporating the Dutch Peel-Grebbe Line and the Dutch army into the Allied order of battle.
Objectives	To defend against a German attack on Holland; forestall German strategic bombing from Dutch airfields against Britain; secure Belgium against an eventual attack from German-occupied Holland.
Concept of Operations	If Holland invaded, Allies advance per Plan D, except French 7th Army establishes linking frontage between Dutch and Belgian armies near Breda/Tilburg in Holland. Belgian army holds Albert Canal Line long enough for Allies to control K-W Line.
Available Forces	France: 7th Army (one mech, two motorized, four infantry divisions). 1st Army (two mech, three motorized, five infantry divisions). 9th Army (three cavalry, one motorized, and six infantry divisions). Britain: eight infantry divisions with motor transport. Belgium: 22 divisions. Holland: eight divisions.
Political Requirements	German invasion of Holland and Belgium. Belgium nonresistance to French passage if Germans fail to attack Belgium.
Military Requirements	Belgians hold Albert Canal; Dutch hold Peel-Grebbe Line.
Risks	Air interdiction during protracted advance. Encounter battle without prepared positions. Dutch/Belgians fail to hold defense lines. Prepared positions unavailable as planned. Logistics difficulties (refugees, distance from bases). Main German attack in relatively distant, insufficiently covered sector.
Payoffs	Channel ports, Scheldt and Dutch ports available. Low Countries airfields secured. Continuous front established incorporating additional divisions. Battle moved well beyond French territory. 7th Army in position for possible counterattack on any German thrust through the Aachen Gap.

The Pivotal 7th Army

Tactically, the Breda Variant to Plan D allocated the 7th Army under General Henri Giraud, hitherto part of France's strategic reserve, to enter Belgium and proceed to near Antwerp for possible use in securing the Netherlands. Its units were modern formations, fully armed with effective antitank weaponry, and comprising one DLM, two motorized divisions, one active, one "A," and two "B" reserve divisions.

The 7th Army was not to cross into the Netherlands unless so ordered; the conditions preventing such crossing appear to have been the immediate capitulation of either the Dutch or the Belgians. Once ordered to enter Holland, the 7th Army had three options, as Fig. 31 illustrates:

1. If the Belgians continued to hold the Albert Canal, it would take up the line Tilburg (or Breda)-Turnhout.
2. If the Belgians failed to hold the Albert Canal Line, it would hold the Tilburg-Turnhout front only as far as Lier southeast of Antwerp.
3. If Belgium collapsed, the 7th would hold the line Breda-Antwerp.

If the 7th Army received no order, Giraud had the option of helping the Belgians on either:

1. The Antwerp-Malines Line, or
2. The Turnhout Canal Line

Political Considerations

The Breda Variant offered additional assurances that the Scheldt estuary could be kept open to facilitate supplying the Allied armies in Belgium. It offered the political advantage of strengthening the Belgian northeast flank, always vulnerable to a German thrust across Dutch Limburg.

Indeed, the interests of France, Britain, Belgium, and the Netherlands converged at Breda. The Breda Plan encouraged both the Dutch and the Belgians to make a determined stand at their most forward practicable lines. As a result, the Breda Plan added some 30 non-French division-equivalents while moving the fighting yet farther from French soil. It assuaged British fears of strategic bombing from the Low Countries, and it rekindled French hopes that the British at last would loosen their grip on the fighter squadrons the French so coveted.

The British accepted this scheme, surprising in view of their earlier hostility to leaving prepared defenses. One consideration may have

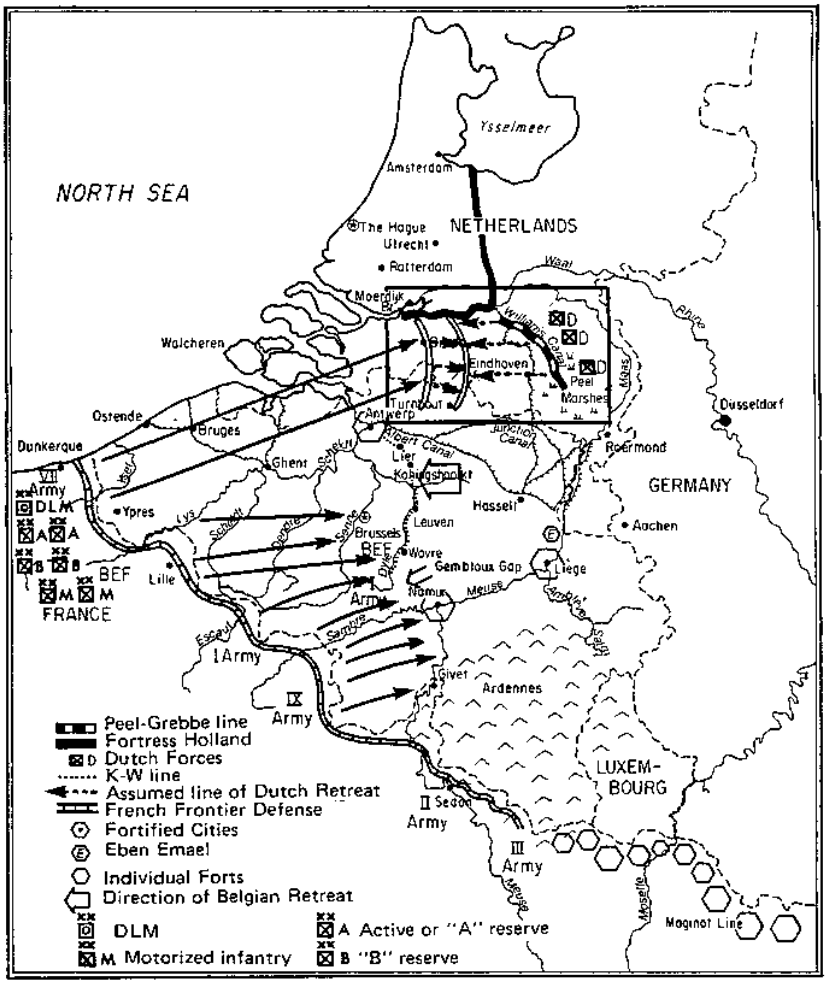


Fig. 31—7th Army options under Breda Variant

been that the further advance, by shortening the Allied line, released some 20 divisions, which could be used in the general reserve.[14] Ironically, it was the British representative at the inter-Allied conference who first proposed pushing on to Breda in southern Holland. This allowed the advancing Allied forces to link up with the retreating Dutch army, and it permitted an orderly evacuation of Antwerp by sea. This last, it was reckoned, ensured that refugees did not clog the advancing armies' lines of communication and gave the Allies' defenses a still greater depth.[15]

Gamelin's intelligence here proved again defective. The advance to Breda assumed that the Dutch would hold their easternmost defensive line, the Peel-Grebbe Line, and then retreat, preserving a continuous front with the French. Gamelin learned only in April 1940 that the Dutch plan called for retreating into Fortress Holland, not holding the modern Peel Line. But he did not change his plans.[16]

Why not?

A Counterattack

Gamelin assumed throughout that the only practicable German line of advance was through the Aachen Gap. The ominous buildup of German forces opposite Luxembourg and Belgium greatly enhanced the worth of the Dutch and Belgian armies. Truly, with the British contribution so slight, the two neutrals held the balance. His thinking was that the optimal Allied defensive strategy was to create in-depth defenses that could not finally be broken. The river lines in the Low Countries provided just this security, while incorporating into the Allied order of battle as many Belgian and Dutch divisions as possible. Yet this was secondary to the possibility that a German advance beyond the Siegfried Line raised: a devastating counterstroke by armored forces operating from the Allied flank in Holland. Giraud's 7th Army dispositions did not depend on the presence of the Dutch army but on the Germans' running into the successive Allied lines that plugged the Aachen Gap. At the least, the appearance of a French army able to menace the German line of communications would distract and slow the Germans. At best, Giraud's troops would do in 1940 what Foch had done in 1918. Figure 32 shows what would have been involved.

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[14]Butler, op. cit., p. 162.

[15]Anglo-French military representatives, 68th meeting, November 12, 1939, CAB 85/1.

[16]Bond, *France and Belgium*, op. cit., p. 77.

Criticisms

These projections drew adverse criticism in March and April 1940 from among the French generals to whose lot it fell to implement the Breda plan. General Blanchard, commanding the 1st Army, estimated that his troops would require eight days to reach and fortify their lines. Giraud, commanding the 7th Army, saw the plan depending on the Dutch holding the Germans east of the Zuid-Willems Canal linking Bois-le-Duc ('s Hertogensbosch) and Roermond. Holding this line was never a part of Dutch planning. Even at the level of obtaining the neutrals' approval for this advance, Giraud had doubts. He did not see how his troops could undertake the advance without knowing definitely whether Holland or Belgium would be their destination.[17]

The planned French advance heavily depended upon its mobile forces moving swiftly by day to secure the K-W Line and link with Belgian troops retreating toward the Gembloux Gap. Nonmotorized infantry would march only by night to minimize the danger of air attacks. Precisely, the scheme was for cavalry and mechanized forces to move on the first day of operations; motorized infantry divisions would move on the second night after the plan was put into effect, and footbound infantry would follow by road and rail three days after D-day. It was estimated that the motorized Allied units could reach the Dyle Line in just six hours and that the entire line could be held in force within 48 hours.[18]

By restricting infantry to night movement, the plan severely curtailed its mobility, for at that time of year the nights were less than eight hours. These timings were not unrealistic, as Gamelin had calculated that a German offensive through the Low Countries would require seven days. But its emphasis on speedy advance bound the armies to the prearranged plan and permitted no second thoughts.

Gamelin erred more seriously in accepting Van den Bergen's assurances that the K-W Line was complete. The antitank obstacle was incomplete, and there was no covering position from which to offer fire protection. Allied intelligence failed badly in not learning the true state of the K-W Line. The only information came from the British attaché in Brussels, but even he was not permitted to inspect Belgian defenses closely. Neither was aerial reconnaissance allowed. As late as April of 1940, the Belgians claimed to have built the latest type of antitank obstacle south of the Dyle to cover the Gembloux Gap.

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[17]Gunsburg, op. cit., pp. 131, 138; Bond, *France and Belgium*, op. cit., p. 77.

[18]Bond, *France and Belgium*, op. cit., p. 68.

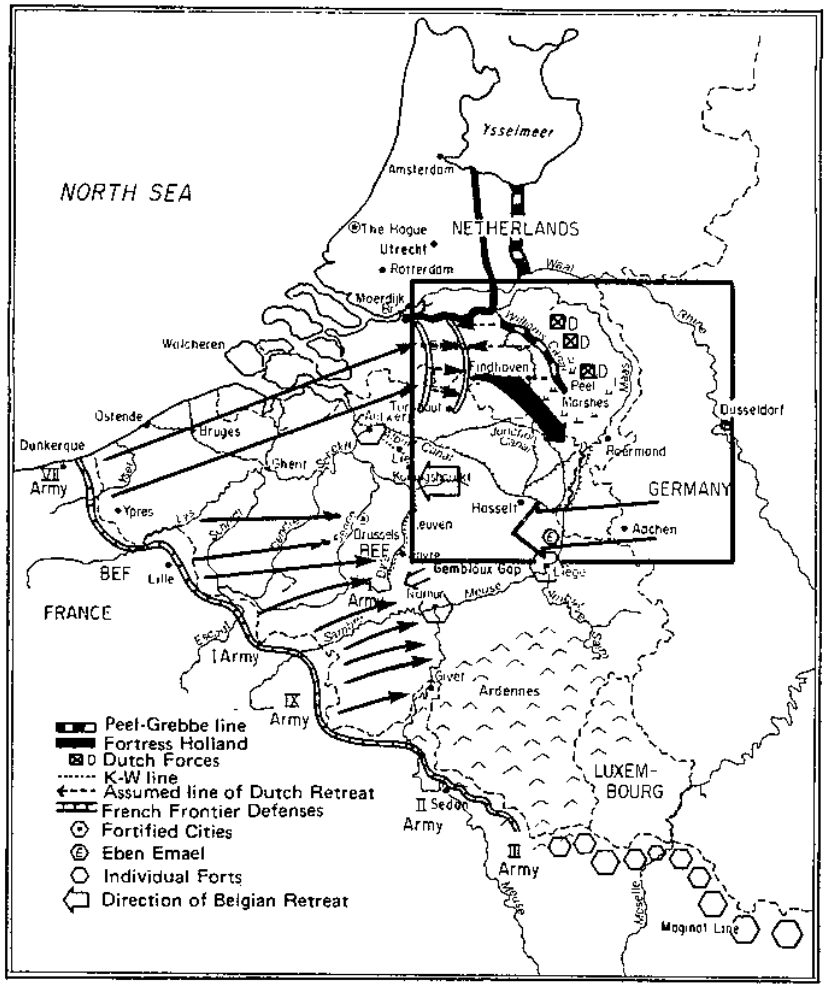

Fig. 32—A possible counterstroke

As a result Gamelin concluded that it remained only to reach the Dyle Line while the Belgian army held the Germans on the Meuse and the Albert Canal. To this end, the more mobile Allied units were assigned the greatest distance and the corresponding segments of the front, so that the least mobile French army (Corap's 9th) moved the least, being closest to the hinge, for which it was allotted three days. Because the 9th had to move on a wide front through difficult country with few communications, it received two cavalry divisions, which were to precede its advance and join Belgian mobile forces that were expected to hold east of the Meuse for five days while the 9th Army moved into position behind the river. In general, mobile units were to lead all advances, secure chosen lines, and then retire behind infantry-held lines to deal with any subsequent penetrations.[19]

9th Army	40 miles to reach the 50-mile front from Givet to Namur
1st Army	50 miles to reach the 25-mile Wavre-Namur front
BEF	70 miles to reach the 17-mile Wavre-Louvain sector
7th Army	100 miles to reach the Dutch army at Breda

The Belgian army, assumed to be retreating in good order, was assigned to cover the Antwerp-Louvain sector, a line of 20 miles. The comparatively unknown Belgian army, it was assumed, would stand on the Albert Canal for five days. A British staff estimate in January 1939 had asserted they could do so for 14 days, observing that "The [Belgian] Army possesses modern equipment, its morale is high and it may be expected to fight steadily."[20]

The Belgian army had 48 obsolete light tanks and little motorized transport, and its reserve divisions were badly demoralized after a winter spent mobilized in the expectation of attacks that never came. Soldiers' frustrations were heightened by the release of comrades whose work was judged in the national interest.

A further assumption of Gamelin's was that the Belgian National Redoubt linking Ghent-Antwerp-Ostende-Brussels remained and that the Belgian army would retreat in this direction. The Belgians did nothing to resolve these uncertainties.

As late as April, when the Allies were expecting an imminent invasion, the Belgians brushed aside an Allied appeal to enter Belgium,

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[19]Chapman, op. cit., pp. 81–83.

[20]"The Strategic Position in France in a European War," January 25, 1939, COS 827 (JP), CAB 53/44.

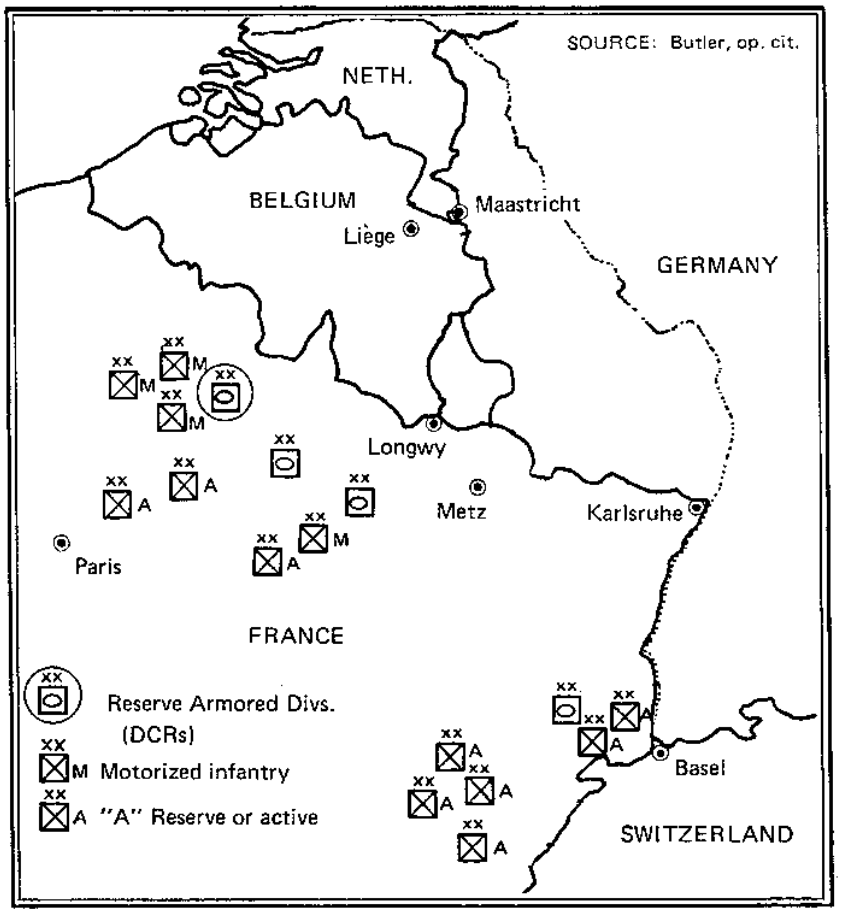

Fig. 33—French reserves, May 1940

demanding to know if they would go as far as the Albert Canal. To this inquiry, the Allies replied vaguely that they would do their best, and the Belgians in their turn did nothing.

It should be clarified that Giraud's 7th Army was not the entire Allied reserve, as sometimes stated; neither was it the entire reserve of armor. Gamelin saw the need for a mobile reserve in the northeast and found it in two DCRs and two active divisions, which he proceeded to commit north of the Meuse as a tactical reserve for the expected German penetration of the Gembloux Gap. Originally, these had been at Châlons, part of the general reserve at the Supreme Commander's disposal. Figure 33 shows the two contingencies French reserves were disposed to meet: an attack through Belgium or through Switzerland.

French forces in the northeast were woefully short of reserves, having only 22 such divisions, seven of which were those of the 7th Army, leaving 15. Five of these were allocated to the Swiss frontier, leaving only ten divisions truly in reserve. Of these ten, three were heavy armored divisions (DCRs), one of which, De Gaulle's, was unready when the campaign began. Another was already committed to the Gembloux Gap area.[21]

Gamelin can be faulted for not appreciating that the French field units responsible for interval defense in the Maginot Line or on the Rhine could be another source of reserves once the direction of the German attack became clear. The high command did not even prepare contingency plans for shifting these units parallel to the front.

NEW BELGIAN DISPOSITIONS

Incident at Mechelen, 10 January 1940

The Mechelen (Malines to francophones) incident is well known. A German staff officer with a full set of German plans for the invasion scheduled for a week later crashlanded in Belgium, and the Belgians recovered the plans almost intact. The Belgians did not doubt the plans' authenticity, but they provided only a précis for the Allies, whose intelligence services did not think them authentic, since there were no other signs of an impending offensive.

Believing an attack imminent, the Belgians appear to have offered the Allies entry in exchange for political reassurances previously discussed. The British refused these, and the Belgian government simul-

[21]Gunsburg, op. cit., pp. 156–157.

taneously decided that no invasion was imminent, and the affair subsided in a diplomatic misunderstanding.[22]

Strategic Aftermath

But a further misunderstanding led the Belgian COS, General Van den Bergen, to open the frontier to the Allied armies, who had been standing by on alert for just such an invitation. A French cavalry column actually entered Belgian territory before it was realized that official permission was not forthcoming. Van den Bergen lost his job for this breach of neutrality.

His departure led to a revision of Belgian plans along the lines of the defense-in-depth school, whose advocates now had the ear of the King, constitutionally commander-in-chief of the Belgian army in wartime. Instead of standing on the Meuse-Albert Canal Line, the Belgian army now would carry out a difficult fighting retreat while marching by night.

The Belgians acknowledged two possible forms a German attack might take:

- Straight through the Aachen Gap by way of Liège.
- A flanking attack across Dutch Limburg.

A third possibility, a double envelopment of Liège from Limburg and from near Luxembourg, came to seem increasingly likely after the Mechelen incident. That was how the Belgians interpreted the plans that had fallen into their hands, and they continued to interpret signs of activity on the edge of the Ardennes in terms of those plans. Accordingly, the Belgians reformulated their plans according to the likely threat.[23]

This turned on the role of Liège:

1. If the Germans attacked straight through the Aachen Gap, as now seemed unlikely, the Belgians would hold Liège and the Meuse-Albert Canal Line, and the mobile divisions based at Ghent and Antwerp would move up.
2. If the Germans attacked from Limburg, as seemed more likely, or
3. If the Germans staged a double envelopment, the divisions at Liège would retreat in the direction of Gembloux, with Belgian

[22]Vanwelkenhuyzen, op. cit., pp. 79–94.

[23]Ibid., pp. 105–116; also his article "L'alerte du 10 Janvier 1940," *Revue de l'Histoire de la Deuxième Guerre Mondiale* (October 1953).

units from the Albert Canal east of Hasselt covering their retreat from the north and retreating to the security of the K-W Line. The Chasseurs Ardennais would afford cover from the south. Troops holding the Albert Canal west of Hasselt would fall back more directly to the northern part of the K-W Line and Antwerp.

For the Allies, this meant that the Belgian army would not sacrifice itself to cover their movement to the K-W Line but would try to defend it on its own. It also ruled out any hope of the Belgians' collaborating with the Dutch to form a continuous front.

The weakness of the Peel-Grebbe Line was that it did not link with the Belgian positions on the Albert Canal. A gap inside Belgian territory existed through which the Peel Line could be turned from the south. The Dutch offered to station a corps there if the Belgians consented to link. This meant standing on the old Junction Canal in front of the Albert Canal, so the Belgians did not. The Belgians asked the Dutch to put that corps in the Tilburg area, and indeed some Dutch planners thought that the line Tilburg-'s Hertogenbosch was preferable, being farther back and more accessible to the French, but no fortifications had been built on this line. Before 1940, the Dutch had taken no account of French plans, but the army's commander in 1940 informed Gamelin privately that he would withdraw one corps from the southern Peel Line to Tilburg once the fighting began but that he could not disobey the government (and reveal this change) beforehand.

WHY WASN'T THE ARDENNES ATTACK FORESEEN?

The Allies were well aware the Germans were planning some sort of attack through the Low Countries, but they could not pinpoint either its exact location or its timing. The Abwehr furnished some details; so did King Leopold's sister, married into the Italian royal family, and in turn the recipient of confidences from Count Ciano, Mussolini's foreign minister. Locally, the indications suggesting German moves in the Ardennes were increased overflights of French territory, increased radio activity, and conspicuous troop movements beyond the border.[24]

Spoofing

The problem was that all these warnings occured time and time again in the winter of the Phoney War, steadily lessening the likeli-

[24]Strong, op. cit., pp. 61-62; Chapman, op. cit., p. 77.

hood of any genuine alert being recognized. Although the Germans were not "spoofing," their on-and-off offensives had the same effect.[25]

French military intelligence exaggerated by 10 percent the total number of enemy divisions but counted armored divisions correctly. However, they gave the Germans some 7000 tanks; more modestly, the British thought 5800 correct, while the true figure was 2500. The gravest error, however, was failing to observe the shift in German weight from Army Group B south to A.[26]

From late 1939 onward, evidence suggested that the weight of the German attack was being shifted south. In November, between 15 and 20 divisions were counted opposite Dutch Limburg and between 20 and 25 opposite Belgium and Luxembourg. By January, the respective numbers had grown to 20–25 and 57. Aerial reconnaissance showed that the Germans had thrown eight bridges across the middle Rhine between Bonn and Bingen and were erecting pontoon bridges across the rivers bordering Luxembourg, something that did not escape the attention of the Luxembourgeois.[27]

Gamelin took this to mean that the Germans were concentrating to counterattack French forces that had advanced toward Saarbrücken and might after all attack through the Saar Gap, so he withdrew them to the security of the Maginot Line. The French noted the buildup of German units opposite the Low Countries, but this had the effect of strengthening the case for measures that would salvage the most of the Dutch and Belgian armies. The ominous growth of German forces made them all the more important.

The Power of Preconceived Ideas

Neither did the French set much stock in reports of armored formations assembling opposite Luxembourg. Gamelin acknowledged that it was standard German procedure to keep armor some 100–150 km behind the front, so it could be shifted quickly and inconspicuously for a surprise attack elsewhere. The massing of armor opposite the Grand Duchy meant not that the Germans were preparing an invasion through Luxembourg, only that they were preparing a staging area from which to launch their main attack, undoubtedly through the Belgian Plain.

Gamelin thought an armored attack through the Ardennes possible only in the event of the main attack's bogging down in Belgium. In

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[25]F. H. Hinsley, *Intelligence*, Vol. I (London, 1981), p. 114.

[26]Ibid., p. 130.

[27]Bond, *France and Belgium*, op. cit., pp. 78–80.

that case, the Germans might shift the weight of their attack south. This, of course, was the German plan from late November to March before the eventual Manstein Plan won the day. Such a shift, the French general staff calculated, would require eight or nine days, ample warning.

VII. CONCLUDING OBSERVATIONS

In this concluding chapter we bring together some of the observations from examination of the historical record and draw analogies with current problems in Western security.[1]

LEGACY OF THE PREVIOUS WAR'S RESOLUTION

We have pointed out the legacy of the Treaty of Versailles—how the perception of unfair treatment of Germany eroded the will of France and its allies to prepare for the defense of their interests. It should be clear that there is a fundamental difference between the post-WW I and post-WW II eras with respect to the legitimacy of the previous war's resolution. Whereas World War I was resolved with the potential aggressor, Germany, having grounds to question the legitimacy of the settlement, World War II was resolved with the potential aggressor, the Soviet Union, enjoying the benefits of any perceived illegitimacy. The seeming illegitimacy of World War I's resolution had to do with German reparations and loss of territory, giving Germany motivation toward aggression. The illegitimacy of World War II's resolution had to do with the partition of Germany and the surrender of Poland and other East European nations to Soviet domination, giving the revolutionary (hence prone to aggression) Soviet Union an interest in preserving the postwar status quo. The post-WW I resolution was inherently unstable—both illegitimacy and Germany's tendency toward aggession pointed toward eventual war. On the other hand, the post-WW II resolution is inherently stable—its illegitimacy tends to balance the Soviet Union's tendency toward aggession.

These considerations certainly applied when NATO was established and throughout the 1950s when Soviet control of Eastern Europe was widely seen as illegitimate. Beginning with the Hungarian Revolt of 1956, however, the West tacitly came to accept the European status quo and in effect the legitimacy of Soviet control, most strikingly demonstrated by the muted reaction to the Brezhnev doctrine. Detente further eroded the legitimacy not of the territorial settlement—which is recognized—but of NATO. The weakened political support enjoyed by

[1]Readers may, of course, draw different analogies than the authors between post-WW I and post-WW II situations. Any such differences in views regarding analogies should not diminish the value of the historical research presented in the previous chapters.

Western collective security is now obvious. Consequently NATO may be undermined in its options, its cohesiveness and in its capabilities to respond to uphold something so nebulous as "Western security."

Here we offer some concluding observations, both on the historical case and on the validity of drawing analogies with the present.

THE NATURE OF THE PLANNING PROBLEM

Then and now, war planning during peacetime serves at least three purposes:

a. To maintain alliances;
b. To deter war; and
c. To guide at least the initial stage of warfare.

We have seen how alliance considerations affected planning following World War I. In the present era, alliances are much more important to planning. The "layer cake" assignment of national responsibilities for defending the various West German corps sectors is largely justified by NATO alliance considerations, rather than "pure" deterrence or war fighting.

After World War I, there was little question that the strongest war-fighting plan was the best deterrent plan. If deterrence failed in any given year, the current plans would form the basis for war fighting. This is not nearly so clear today. Since World War II, there has been a sharp distinction between conventional and nuclear plans, and, in NATO at least, between "theater" and "strategic" plans. Today the plans created primarily for deterrence are so destructive that few people, if any, know whether they would really be used if put to the test. That uncertainty is part of the deterrence. Unfortunately, it also makes our own planners uncertain about how "real" our war plans are. Those engaged in planning conventional campaigns often function as though there were no such things as theater nuclear or strategic nuclear weapons. Those engaged in planning nuclear campaigns are likely to regard conventional warfare as but a prelude to the real thing.

NATO's declaratory policy must, of course, be "all for one and one for all." That is, plans crafted for deterrence must be based on assumptions that the NATO alliance functions well. Planners who doubt that anything functions as well as advertised may not be allowed to plan under assumptions that run counter to declaratory policy.

Given these sometimes-conflicting purposes of planning, we should not expect post-WW I or current plans to be entirely consistent or to present an optimal solution for any one of the purposes.

DETERRENCE

After World War I, France and its allies sought military preparedness to deter both the dreaded total war of attrition and its major alternative, an attaque brusquée. Similarly after World War II, the United States and its allies sought military preparedness to deter total nuclear war and its alternative, a massive conventional onslaught by Warsaw Pact armor into Western Europe. In both instances there was ample assurance that total war would be regretted by the aggressor. There is a difference, however. Following World War I it was assumed that a successful halt of a German attaque brusquée would be followed by a war of attrition and an eventual successful, war-terminating counteroffensive. Following World War II it has been assumed by some that a Soviet advance would probably be halted by use of American-controlled nuclear weapons, very possibly against the Soviet homeland. Each of these two types of deterrence has its advantages and disadvantages. Post-WW I deterrence had the disadvantage that France and the Low Countries would be unable to halt the German advance, hence unable to deliver on their deterrent threat. The advantage was that, given their ability to halt the German advance, having suffered from the attack, they would almost surely launch the counteroffensive against Germany. Post-WW II deterrence has the advantage that the ability of NATO to deliver the threatened nuclear retaliation is almost certain, but there is the disadvantage that the will of an unscathed United States to deliver that blow is far less certain.

Germany's strategy called for eroding its opponents' capability to deter; it was successful in doing this. Soviet strategy would presumably be to erode its opponents' will while its own buildup of theater and strategic forces impairs NATO's capability to deter. Here there are two possible targets, the will of West European countries to endure nuclear war in their countries and the will of the United States to risk destruction of its homeland for the sake of its European interests.

Soviet endeavors to foster antinuclear sentiments in Western Europe have often been viewed as a threat to Western capability, e.g., loss of capability that would result from refusal of a West European state to host cruise missiles. We would argue that any such loss of capability is a secondary concern; it is loss of will that is of primary concern. If there were no nuclear capability resident in Western Europe, the major nuclear deterrent capability of the United States would remain. If, however, antinuclear sentiments in Western Europe deny NATO the means to stop a Warsaw Pact advance into the Federal Republic of Germany, then only the will of the United States

to attack the Soviet homeland functions as a deterrent. Thus, it is will, not theater nuclear capability, that is at issue.

In crisis or wartime we would expect the Soviet Union to attack the will of Western Europe by offering an accommodation to at least some nations that would seem preferable to enduring nuclear or conventional war. Such a Soviet strategy would entail limited Soviet objectives, to allow for an accommodation. If NATO planning assumes unlimited Soviet objectives, there is risk the planning will be deficient in addressing a likely Soviet strategy.

A Soviet threat to Western security is most likely to occur in politically ambiguous circumstances in which the stakes appear minor to public opinion and NATO's capacity for reacting is impaired.

Western planning for war in the late 1930s was similarly oriented toward sustaining a defensive war of attrition—and rightly so. But the resulting plans limited the West's options in reacting to German violations of the status quo.

PLANNING ASSUMPTIONS

World War I had demonstrated that, once unleashed, total war was unpredictable in its effects. Defeat could destroy a nation's very existence, the Belgians feared, and victory might well prove ruinous, as France had learned in 1914–1918.

All western planning in the late 1930s shared certain basic assumptions:

- The direction of the threat: Germany.
- Its nature: a direct military attack, on land for Belgium and for France, and by air for Great Britain.
- The form that such a war would take:
  - — By land, a sudden attack, either with only peacetime actives (the attaque brusquée) or with a larger motorized and mechanized army supplemented by plentiful reserves (the blitzkrieg).
  - — By air, a sudden attack on capitals with high explosives and probably gas as well.
- The decisive theater, which in either case would be the Low Countries, either to pursue a bombing offensive against England or to launch a powerful sustained land offensive directed at Paris.
- The next stage was not so obvious, but at some point the German offensive would be halted, and the front line would stabilize. After this, the Allies' industrial capacity, financial

strength, and population would enable them to prevail. The ramshackle command economy of Germany could not function effectively over a long period; the internal stresses of the totalitarian state would handicap its military effort and quite likely cause its collapse. This was the fundamental axiom of Allied war planning at the national command levels, and as a tacit assumption, this theory of the next war underlay all British and French staff planning.

We are not able in this report to comment on the planning assumptions embodied in actual, current war plans. NATO's declaratory policy of flexible response, however, assumes the following:

- The direction of the threat: the Soviet Union and its Warsaw Pact allies.
- Its nature: a direct military attack, on land and by air against all or most of the West European NATO allies.
- The form that a war so resulting would take:
  - By land, a massive invasion, probably from a fully mobilized posture but, possibly, with little unambiguous warning. The initial onslaught, at least, is expected to employ conventional armor but, probably, no nuclear weapons.
  - By air, a massive air operation, possibly using chemical weapons, probably lasting at peak intensity but a few days.
- The decisive theater would be the central region, most specifically the FRG. If NATO conventional forces can halt the Warsaw Pact advance at some loosely defined "forward" position in the FRG, a ceasefire is assumed. If not, NATO escalation to some level of "theater" nuclear weapons may stop the advance. If not, threat of loss of the FRG would presumably prompt use of strategic nuclear weaponry.
- The stage following the halt of the Warsaw Pact advance is unclear. There is often an assumption that negotiations would restore the status quo ante bellum. Declaratory policy seldom speaks of an Allied counteroffensive past the prewar inner-German border or of a second campaign.

THE POLITICAL DEFENSIVE AND ITS DERIVATIVES

Allied planning after World War I aimed to defend the European political settlement imposed on Central Europe by the Versailles Treaty of 1919. However logical strategically in terms of containing an eventually resurgent Germany, the Versailles Treaty began to lose its

political legitimacy after France's occupation of the Ruhr in 1923. Increasingly after the Locarno Treaties of 1925, it came to seem a dangerous anachronism. The widespread disillusionment in the West with the result of the "war to end wars" facilitated German efforts to dismantle it. Disillusionment with Versailles curtailed military spending and hindered efforts to create vigorous alliances to maintain the European order.

In terms of military planning, such attitudes in Europe in the 1930s served to surrender the political initiative to Germany. However, it did not necessarily follow that with the loss of the political initiative the western Allies accepted a defensive military strategy, but they did.

In the French case demographic constraints interacted with the electorate's unwillingness to maintain a heavy military burden, one that certainly seemed redundant by the late 1920s. Further, the onset of the depression ruled out a highly mechanized army capable of retaining the strategic initiative or even of counterattacking. The lag in the late 1930s between political support for armaments and their availability to armed forces meant that the French remained bound by plans that derived from an earlier era when the German threat appeared minimal. Instead, military doctrine accommodated itself to political realities and adopted the only possible stance consistent with national safety: the strategic defensive. French concern with defense did not derive from national malaise or from misread "lessons of 1914–1918" so much as from the paucity of resources available to its army. Fixed fortifications optimized available manpower and armaments, and planning concerned itself with parrying the expected German offensive.

However, fixed defenses did not portend a flaccid, purely reactive military strategy. Both Belgian fortifications and the Maginot Line sought to conserve limited manpower, and to canalize offensive into difficult terrain or into avenues ripe for counterstrokes.

Furthermore, prepared defenses were not (and are not) intrinsically defensive. The German defenses were a mix of political bluff and strategic deception and aimed to free forces to pursue offensives in other theaters. The Siegfried Line succeeded famously in deterring any French reactions while Germany dealt with Czechoslovakia and then Poland. Strategic intentions cannot be inferred any more from the existence or nonexistence of fortifications than from "defensive" weapons.

More than the Maginot Line, inaccurate intelligence contributed greatly to French strategic paralysis by exaggerating the size of the German shadow army well before Hitler took power. At the decisive moment when Germany reoccupied the Rhineland, French military

intelligence likewise overrated German strength and confirmed a weak government in its irresolution.

But threat assessment by itself played a relatively minor part in shaping military plans even if it had a lot to do with the way governments reacted in crises. Budgets, diplomacy, and available manpower set plans before the Nazi threat was real.

The political prelude to the actual fighting offers additional parallels, for the crucial strokes that undid the European security system of the 1930s were won by careful political warfare long before any shots were fired. Germany successfully avoided having to fight a two-front war by systematically dismantling the French security system well before the actual Campaign in the West. Figure 34 shows the mounting tide of troubles in which French planners prepared for war.

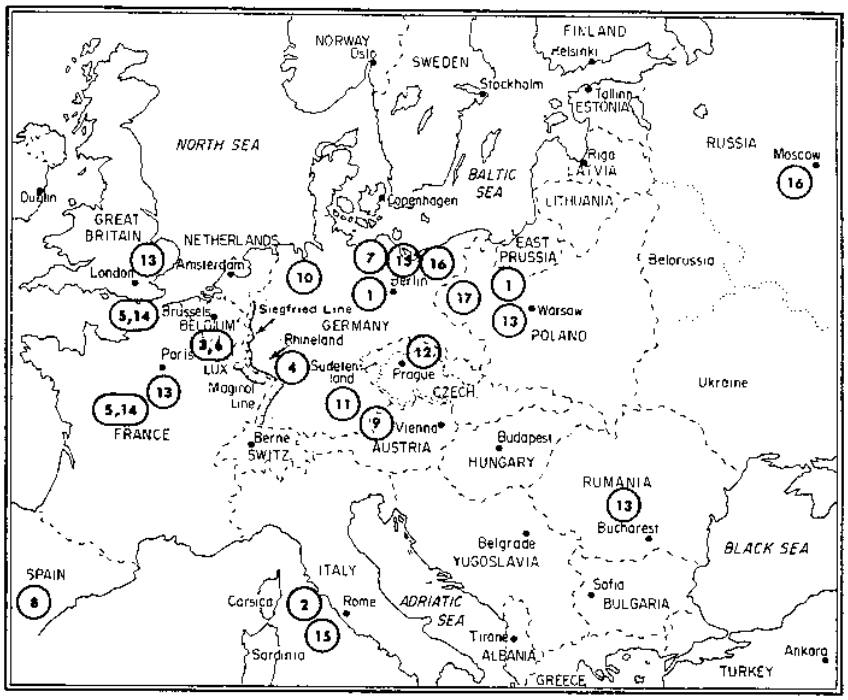
And the planning process that deprived the Allies of effective counteraction in these circumstances and condemned them to defeat in May 1940 stemmed from nonmilitary factors that long preceded hostilities.

Signally, France's one-year service enacted in 1928 ruled out the prospect of any offensive operations against Germany, thereby opening the way for the German political offensive and coups that successively regained the Rhineland, incorporated Austria within the Reich, swallowed Czechoslovakia in two gulps, and then finished Poland in but a few weeks time. That is, lack of manpower ruled out any immediate counteraction, since any unsuccessful or partially successful French counterstroke that bogged down in a war of attrition could cost France's survival. It was better to plan defensively. Since neither France nor Britain had the means to intervene, and since their populations would fight only to defend their national territory, their plans were strategically defensive and helpless to deal with indirect aggression.

Germany's political gains tilted the balance steadily against France and in the end removed the tacit assumption that, one way or another, Germany would not be able to throw her entire armed forces against France on account of France's eastern allies: Poland, Czechoslovakia, and the Soviet Union.

DECAY OF DETERRENCE

Between the World Wars the Allies built a deterrence system, observed its decay, and adjusted their war plans to that decay. During the post-WW II period there has been no decay of the deterrence system comparable to that observed between the World Wars.



1. German-Polish Nonaggression Pact, 1934.
2. Italo-Ethiopian War & French estrangement, 1935-1936.
3. Belgium ends Military Agreement, 1936.
4. German reoccupation of Rhineland, 1936.
5. Anglo-French staff talks lead nowhere, 1936.
6. Belgian neutrality, 1936.
7. Anti-Comintern Pact Germany–Italy–Japan, 1936.
8. Spanish Civil War, 1936-1939.
9. Anschluss, 1938 Czechoslovakia outflanked.
10. Siegfried Line begun, 1938.
11. Munich crisis, Sudetenland & Czech frontier defenses surrendered, 1938.
12. Czechoslovakia dismembered, March 1939.
13. Anglo-French guarantee to Poland & Rumania, March.
14. Anglo-French staff talks, April.
15. German-Italian "Pact of Steel," May.
16. Nazi-Soviet Nonaggression Pact, August.
17. Poland invaded and crushed, September.

Fig. 34—The dismantling of French security, 1934-1939

Failed Deterrents Following World War I

The British planned in the prewar years to use strategic bombing primarily to deter an aerial attaque brusquée. If deterrence failed, their war-fighting strategy was one of protracted attrition against strategic-economic targets. The British assumed that strategic bombing would accomplish what tens of thousands of troops had required four years for in the First World War. The RAF's subsequent experience against tribesmen in Iraq, the Sudan, Somaliland, and the Northwest Frontier of India gave an exaggerated idea of what precision daylight bombing might achieve. In 1937 the RAF began studies to determine exactly what it might be able to accomplish by strategic bombing in a European war. By 1940, the French still had not begun any serious efforts to assess the value of bombing.

Consequently, Britain had no effective means of responding to European developments other than a general war. The bomber deterrent proved no deterrent to more limited threats, threats that still shifted the European balance against Britain.

One conclusion that both the prewar period and the Phoney War suggest is that strategic weapons' deterrent function can itself be bluffed by an aggressor willing (or seemingly willing) to risk ultimate escalation. By presenting the defenders with the option of initiating the cataclysm that all foresaw or accepting the aggressor's fait accompli, an aggressor can accomplish much at little cost even when the defenders enjoy strategic superiority. An aggressor who can employ political warfare successfully to weaken his opponents' will and deal with his opponent's allies piecemeal can double this advantage.

The British choice to have only one option reflected a fundamental political misjudgment at the national command level: Britain's security *did* depend on France's security, and France's security depended on a Germany restrained from attempting to overturn the Versailles settlement piecemeal.

France's security system had tried to do this, but France had won the war only to lose the peace. France failed to establish the moral legitimacy of the postwar European balance of power either in the eyes of her necessary allies or of her own people.

Failed Defenses Following World War I

The war plans of 1940, even when promising a potential for counterattacking, for the most part could not be implemented, as the weapons provided by rearmament were not suitable. The grandiose promise of strategic bombing ill-accorded with the bombers available to the RAF at any time, yet this did not affect planning until very late.

Similarly, one important strain in French thinking held that only carefully prepared local offensives, backed by massive firepower, could work in modern warfare, the theme sounded throughout the interwar years by Marshal Pétain. But France's arsenal in 1940 lacked sufficient heavy artillery and the shells needed for this sort of offensive.

Such discrepancies between strategy and capabilities stemmed in large part from political circumstances in which planning and rearmament proceeded. The professional military did what they could with the means given them.

ADAPTION OF PLANS TO CRISIS AND WARFARE

As the crisis of 1939 developed, Germany was more successful than its opponents in adapting to changing conditions and applying lessons in revising war plans. Although this stage has not yet been reached again since World World II, history suggests that the ability to replan during crisis may be of critical importance.

Neither War Nor Peace

It is hard to evaluate the effect of the Phoney War itself, the eight month hiatus between the declarations of war and the outbreak of serious fighting in the west. Both sides used the time gained to reform their armies, each adding armor. Certainly, it weakened the morale of both French and Belgian units filled as they were with poorly trained reservists. Both nations had expected something like an attaque brusquée; their mobilization schemes aimed to get the maximum number of men onto the field for the expected critical battle. When this battle did not happen, soldiers in critical industries had to be released and even some units disbanded. Evidently, it was to be a war of attrition after all.

The French were in the process of recasting their doctrine. Since their rearmament had gathered speed dramatically from 1936 onward, they were also forming new units, especially armored formations; training new air units equipped with up-to-date French and American planes; and revamping their thinking and planning to employ these new methods and new formations to the best effect.

Hasty efforts to incorporate the lessons of recent fighting in Spain and in Poland seem to have added to the army's problems. The new lessons clashed with received doctrine and were not understood well. The Breda Variant to Plan D that the Allies employed in May 1940 illustrated this perfectly. It daringly projected armored forces into

Holland to shore up a continuous front and provide the basis for a decisive counterattack. At the strategic level, it was purely defensive, aiming to establish a continuous front, reserving armor and motorized forces behind most of the front to deal with breakthroughs. This was established doctrine.

At the operational level, it sought to cap the defensive phase of the campaign with a daring counterstroke emanating from southern Holland. However, the very forces that were to carry out this coup (the 7th Army) also had to serve as the mobile reserve for the entire northern front, reacting to any breakthroughs. So, if breakthroughs occurred or merely threatened, this mobile force would have to abandon one of its two critical roles.

Surprise

There are different levels of surprise, and the rapid downfall of France in May-June 1940 astounded many people. But neither the war, the impending attack, nor its general nature were surprises. Where the Germans achieved surprise was with the blitzkrieg, particularly the scale of its use against a fellow great power.

The French and Belgians had so long anticipated an attaque brusquée, either on the ground or from the air, that they concluded when it did not arrive that the war would proceed along the lines of the war of attrition equally forecast. What they did not realize was that the blitzkrieg employed surprise in terms of its scope and intensity to destroy their mobilized armed forces in the field, something previously thought impossible. What the Germans achieved was surprise at the level of doctrine.

Much intelligence suggested that the Germans would come through the Ardennes, but at the time this evidence was explained as either a feint or merely as a part of the earlier plans of which the French had received so much evidence. The amount of high-grade information available proved every bit as misleading as any strategic deception.

On the eve of the German attack in the west on 10 May 1940, the western powers had a good idea both of the nature of the threat and its approximate location. A mechanized attack through Belgium would be Germany's first move.

Intelligence proved remarkably accurate in forecasting at least the general direction of the German attack, but it could predict neither exactly where it would occur nor the exact date. Repeated postponements of German offensives, which stemmed from discord between the German military and Hitler rather than from any conscious attempt at deception, had the same effect as repeated "spoofing" in a similar

period of high tension. The "Venlo Incident" in late 1939, when Gestapo agents posing as German dissidents kidnapped top British agents from Holland and "rolled up" their networks, did much to destroy the credibility of intelligence emanating from genuine opponents of the Nazis. Finally, French aerial reconnaissance, which had only obsolescent aircraft, proved seriously deficient when faced by modern German defending aircraft.

These failings, real as they were, illustrate only why the French did not anticipate the precise locale and date of the attack and its axis of advance. Allied commanders failed not in missing these details but in not having plans sufficiently flexible to respond.

PLANNING FOR THE COUNTEROFFENSIVE

Following World War I, France and its allies were well aware of the need for a counteroffensive, should Germany attack. Post-World War II NATO alliance sensitivities have precluded open planning for counteroffensives other than with nuclear weapons. However, the purpose of these strikes is primarily deterrence, not war fighting. The strategic defensive has thus been adopted by default. However, three levels of ground counteroffensives might be planned: limited offensives to restore the prewar boundaries, more general offensives to liberate the East European nations from Soviet domination, or larger-scale offensives, perhaps on multiple fronts, to partition the Soviet Union. Such counteroffensives might be staged in the initial campaign of a European war or might be deferred to a later campaign. Whether or not NATO can or should plan for such counteroffensives, we should recognize that the present deterrence system rests in part on Soviet and other Warsaw Pact knowledge that we *could* launch a counteroffensive.

PLANNING FOR WAR TERMINATION

Plans developed between the World Wars were incomplete, omitting how to terminate warfare short of unconditional surrender by one side. In the context of NATO, plans for war termination are made difficult not merely by the presence of nuclear weapons but by a politically determined unwillingness to admit that aims might go beyond restoring the status quo. Western planners before WW II likewise could not openly contemplate outcomes other than a return to the status quo. It may be impossible to plan realistically for termination, but planners should be aware of the problems and issues involved in termination.

Not the least of these is the problem of terminating under conditions conducive to a lasting peace.

AN ASSESSMENT OF THE POST-WORLD WAR I CONTINGENCY PLANS

Contingency plans were drawn up to make the best use of forces actually available to implement political objectives, and these depended upon finance, available manpower, and the degree to which the nation's military policy commanded broad-based popular support. The successive scaling down of French plans in the 1920s and early 1930s clearly flowed from changes in the length of service and the size of the conscript classes.

But what of the plans themselves? What characterized them, and how flexible were they? More specifically, once the constraints under which they were constructed is taken account of, do they bear any significant responsibilities for the course of events in the interwar years and the Campaign in the West in the spring of 1940?

The Characteristics of Plans in the Interwar Years

The level of detail involved in plans at the national command level was not great. Plans were cast in broad strokes, and nowhere is this more in evidence than with German planning from the fall of 1939 onward. Subject to prevailing doctrine, the disposition of forces was left to the field commanders themselves.

Forces were understood traditionally as division flags, not as firepower aggregations or any of the other metrics familiar to defense analysts today. Planners distinguished qualitatively, not always successfully, as the French case shows, between different kinds of divisions, but they seem to have made little effort to weigh precisely the capabilities of different formations denominated "divisions."

This accounts somewhat for the overestimates of German army strength, in that cadre formations and reserves were often included in the total count. But this rough reckoning did not allow for armament being distributed unequally throughout opposing armies. For example, the Allies persistently doubted whether Hitler would launch a decisive offensive in view of Germany's incomplete rearmament and her overheated economy.

German and Allied planners did distinguish different kinds of divisions among their own. For the Germans, armored and motorized divisions went to the decisive point; Landwehr and reserve divisions from

the older waves (i.e., those with lower grades of equipment and older reservists) were assigned unhesitatingly to quieter sectors, lines of communications, or to occupying conquered Poland. With quite different purposes, the French shuffled their active and mobile divisions to be most ready to meet the expected breakthrough.

Axes of advance were also laid out in very broad strokes, cast in terms of the "Aachen Gap," "Gembloux Gap," or "Belfort Gap." The Ardennes was treated as an homogenously elevated and forested plateau, and little attention seems to have been paid to the substantial German advance through it in 1914.

Timings were understood very roughly, too. A period of five days was allotted for the Allied armies to reach and secure the K-W (Dyle River) Line, that being assumed the length of time the Belgian army could hold its position on the Albert Canal. More precise timings were considered for shorter advances, but nothing suggests that successive stages of plans depended upon timetables being met or upon enemy forces failing to maintain an expected rate of advance.

None of the Allied plans provided for operations much beyond the initial encounter. Uncertainties were seen as so great that after a point plans simply resorted to general indications. Perhaps this was belated homage to the elder Moltke's pronouncement that no plan survives its initial contact with the enemy. As a result, the Battle of France has been understood simply as a failure by the defenders to appreciate the effects of new weapons.

What is striking is the confidence of Allied planners that the defenders need not plan for operations beyond the advance to whichever river line was deemed most suitable. The successive "E," "D," and "Dyle-Breda" Plans were strikingly linear in conception, allowing for no second thoughts, no unforeseen contingencies, and no follow-on operations. To make a distinction, they were contingency plans, not plans with contingencies built in. If Hitler invaded Holland and not Belgium, then the Breda Plan would go. If Hitler invaded Belgium and the Belgians did not call for help, then Plan E would go, and so on. Within the plans, objectives were specified in advance, timetables laid down (on the whole, realistically), and forces allocated for their execution.

War termination was addressed in very general ways by western expectations of eventual victory after a prolonged siege, but specific contingencies were not studied with the same thought in mind.

The Roles of Plans in the Interwar Years

Contingency plans served two fundamental roles throughout the interwar years: (1) They were means of organizing the actions of multiple and diverse forces to accomplish a unifying objective in the expected chaos of war, and (2) they were the best estimates of what could be accomplished by military means in different scenarios; and indeed, best estimates of those future scenarios themselves. In the first role, the Allied plans can be faulted for inefficiencies and rigidities detailed below. But there is a tendency to overlook the second role.

Although plans were heavily influenced by the wherewithal provided—the men, equipment, alliances, political constraints—and by nations' political leaders, they were in an important sense the final opportunity to point politicians to the dangers of unrealistic policies. In the case of France, although the reduced period of service and tightly constrained budgets made sustained offensive operations difficult, military planners were under no obligation to accept a *militarily defensive stance* under virtually all contingencies from 1928 onward. For example, they did not plan for a Roman attaque brusquée. They failed to provide for plans to concentrate their own mobile forces for an offensive operation to relieve their East European allies. The French military made far less than strenuous efforts to force their political masters to appreciate the importance of detailed contingency planning with the Belgians and British.

Simply put, if there was a malaise in France in the 1930s, the French military shared it as much as the politicians and public. They eschewed their responsibilities for:

- Planning for a wide variety of contingencies, including how best to counter German faits accomplis and aggression against eastern allies.
- Preparing a chest of plans that appreciated the uncertainties of war and at the same time provided branch points[2] to define and refine plans throughout the course of their implementation.
- Forcefully informing the politicians of the impacts of their domestic and international political moves (conscription, budgets, alliances).

[2]The term "branch point" refers to tree diagrams often used in decision analysis to represent alternative decisions under uncertainty. Each branch of the tree diagram is an alternative. A decision point in a tree diagram is, thus, a "branch point."

Were the Plans at Fault in the Spring of 1940?

French plans aimed to defeat a German advance through the Aachen Gap, stabilizing the front somewhere in Belgium mainly to shield France and French industry from the battle. This would be done provided the Belgians held the forward line of the Albert Canal long enough for the advancing Allies to take up a position on the K-W Line, broadly, that linking Antwerp and Namur and including the Meuse above Namur. A later addition to the plan that detailed the highly mobile French 7th Army to advance into Dutch territory near Breda was to add the Dutch army to the Allied order of battle and to hold hands between the Belgian position on the Albert Canal and the Dutch position.

In fact, neither the Dutch nor the Belgians were prepared to risk their nation's armies to hold advanced positions for the French, but the Allies did not know the Belgian plans until they were implemented and took no account of changed Dutch plans. These points are substantially moot, for the German offensive came elsewhere, but they underline the difficulties of coalition warfare.

The Planners' Failures

The movement of Allied mobile units into Belgium and particularly into southern Holland envisaged by the Breda Variant to Plan D was the single great planning failure of the entire campaign.

Previous French plans had reserved mobile infantry and armored divisions exclusively to counterattack at the site of expected breakthroughs. French doctrine had never assumed that their front would not bend, but Plan D-Breda had such confidence in its reading of German intentions that it committed reserves before the direction of the threat was demonstrated.

Certainly, the Breda Plan erred badly in enforcing a rigid timetable upon Allied units that permitted no branch points' being taken account of. Allied commanders held German air interdiction in high respect and had planned to move only by night, which added to the pressure to carry out the preconceived plans as quickly as possible. This example of "plan-binding" had decisive consequences as dispositions on the remainder of the French front assumed a continuous front supported by mobile forces to the rear. Having no armor or readily available reserves behind them, the ill-equipped "B" divisions covering the Ardennes were less able to hold positions than were units on the Rhine and on the Swiss frontier.

Another related flaw was the absence of planning to move units laterally from quiet sectors of the front elsewhere. The large numbers of soldiers holding the Maginot Line were lost to the decisive campaign in Flanders and northern France for lack of prudent foresight.

Although French air planners vastly overrated the capabilities of their own air interdiction (an important factor behind their thinking the Ardennes impassable), British air planners recognized that their tactical bombers would have trouble hitting targets on the move. Neither recognized just how effective mobile German flak would be. Both concluded that strategic bombing could not be decisive during the required period. The necessary rapidity of effects could not be had, so rapidly did the blitzkrieg advance the battlefield. Attacks on the Ruhr power grid or oil-synthesizing plants could not affect the battlefield outcome. On the battlefield itself, the bombers' inaccuracy made them useless.

This debate over the accuracy of tactical air support continues to this day, but in 1940 the pessimists were right in estimating that tactical air power would not be effective in stemming an invasion.

The Politicians' Fault

Perhaps the most serious political failure was the French inability to establish any doctrine of collective security involving the Low Countries. The French failed over the years to convince the Belgians that their security required French help. Instead, it was painfully obvious that the French sought entry into Belgium only to use it for a "battleground prepared in peacetime." The political error ruled out in-depth staff conversations, which had serious tactical results. Lack of staff talks, too, led the French to think that Belgian demolitions in the Ardennes would help defend France; rather, Belgian defensive measures there were few and scarcely of help to France, for *Belgium* the Ardennes presented a different problem than it did to France.

LESSONS FOR TODAY'S PLANNERS

Risks and Rewards

In reading any study of the events leading up to the Campaign in the West there are two feelings that modern defense analysts are likely to confront. The first is the sense that the outcome of the Campaign was predetermined. Authors searching for a dominant causal relationship describe post-WW I planning with phrases such as: "a unique

group of inept military leaders and corrupt politicians," "stagnant doctrine," and "poor defense investment choices."

We believe these explanations are inadequate; for the most part they are false.

At one point after another, the Allies found themselves in positions from which they could have averted the catastrophe of spring 1940. This study has focused upon the world of contingency planning. Even within its narrow confines there were opportunities to affect fundamentally the outcome of the forthcoming campaign.

The second feeling analysts confront in a reading of this material is that of an inverted déjà vu. We examine the defenders' dilemmas throughout the interwar years and recognize archetypes for our own problems, especially in NATO and Central Europe. It is one of the purposes of this study to encourage such empathy for the past, to assert that there are lessons awaiting our attentions.

Limits of Analogy. There is one strong argument against this stand. It is that by slighting context, by searching for the generic rather than the specific, we may misunderstand the events themselves. This can lead in turn to false and excessive analogies.

That argument is irrefutable stated so broadly. But rather than discourage the practical study of history, it should warn us of the need to pursue historical analysis in support of current defense issues with the same rigor as is applied to pure historical research.

Those Who Ignore the Past... Vast changes in technology, population, national objectives, military doctrine, and so forth guarantee that we shall not be condemned to relive the past. We are likely, however, to revisit many errors of the past if we refuse to search it for its warnings. There are three types of lessons we can draw for current defense planning from the experiences leading up to 1940 as examined in this study:

- Conceptual parallels.
- Understanding the planning process.
- Direct similarities.

Conceptual Parallels: National and Alliance Politics

We have identified the major elements that influenced planning throughout the interwar years. Most of these are fundamentally political—both domestic and international. Yet, in many ways they shaped the means and methods with which the military-political planners worked.

The "national consensus" of France, however difficult to isolate and define, limited the period of conscription, denying France the manpower to field an army capable of sustained offensive operations without extensive preparations. It refused a military budget adequate to build the Maginot Line *and* mechanize substantial numbers of divisions to permit offensive operations to aid beleaguered East European allies. It came to abandon the Versailles settlement, paving the way for unilateral German abrogation of its terms.

But what parallels are there for NATO and the Western Alliance today? We believe there are several:

- **The failure to legitimize our cause.** Memories of aggression and threats fade quickly in wealthy lands whose citizens are satisfied with the status quo. The people of Western Europe may come to see NATO's military alliance not merely as useless and wasteful, but also as a threat to peace.

  Our leaders speak positively of NATO's peacekeeping role, and broadcast our virtues to Eastern Europe. But we are failing to convince the citizens of *Western Europe* of the need for the alliance and preparations to keep the peace. Major efforts should be undertaken to seize the moral high ground, to contrast NATO's free alliance of democratic states to the Warsaw Pact's coerced Soviet satellites. This must be tied to the necessity for defensive military measures, and a renewed optimism that the price is not only worth paying, but in no sense is it overly burdensome.

  In the long term, popular support today for military postures translates into what can feasibly be planned for or attempted in the event of hostilities. French inability to contemplate active responses to piecemeal Nazi aggression in the late 1930s stemmed from choices made in an earlier, more benign decade, which gave rise to attitudes.

  For planners, the implications are that potential political developments need to be weighed carefully. Options can narrow, weapons systems degrade, or allies drop out, all this in the face of a Soviet theater buildup, all because of unsuccessfully fought political warfare.

  It would seem unlikely today that the Soviets would mount an attack against a vital NATO, just as Germany did not take on an intact French alliance system. Careful advance political

warfare achieved decisive results before active measures were seriously planned by the aggressor.

- **The effects of terror.** In the 1930s the airplane threatened, in official considerations as well as the public's mind, to wreak havoc and destruction beyond what modern states could tolerate and survive. Today, much more realistically and vividly, nuclear weapons pose a similar threat. This threat may be even more debilitating than that faced by our fathers and grandfathers because it seems that even if soundly defeated in battle, an aggressor can strike and destroy all that our military seeks to protect. The logic of that reasoning appears to lead inexorably to mutual assured deterrence or some variant of it. War fighting becomes pointless, deterrence the only answer.

  We have seen what the effects of such policies can be: An aggressor willing to take risks can exploit the fear of the ultimate weapon to carry out faits accomplis and even major operations. Our very strength can render us impotent to respond to such aggression.

  NATO leaders recognize this argument and have taken steps to counter it by developing the capability to respond to aggression at different levels. We have nevertheless largely failed in convincing our own people of the logic behind our steps. As with the affair of the "neutron bomb," our failure to explain our prudent, defensive steps may leave us vulnerable to internal paralysis in the future.

- **Overrating the enemy.** This can have cascading effects at the operational and tactical levels, particularly if it involves qualitative as well as quantitative overthreatening. It can cause us to surrender the initiative and plan for a war that fails to exploit the advantages that lie within our grasp.

- **Coordination with neutrals.** A study of the interwar years can hardly fail to highlight the critical role neutral powers can have, and the price paid by them and other nations for their all-too-fragile neutrality.

  In the absence of serious staff discussions that might compromise their neutrality, such countries as Finland, Sweden, and Austria cannot cooperate efficiently with NATO in the defense of their own territory. The difficulties involved in any discussions are daunting, not least because Sweden and Switzerland *were* able to remain neutral throughout the Second World War.

However, the fate of the neutral Low Countries in 1940 provides a counterlesson. The relevant points are two: Neutral states may have to pursue neutral policies for internal domestic reasons and the neutrality of key states can expose major strategic weaknesses by outflanking allies.

Staff talks do *not* require formal alliances or the abrogation of neutrality. We may not need to preposition forces on their territory in peacetime. But there will be too little time for adequate preparations—and certainly, for their deterrent effects—if war should visit Europe again.

- **The counterattack.** The French did not supinely await the German onslaught; rather, they prepared to deal with the new war revealed in Poland and prepared to counterattack the expected German armored advance. Nevertheless, they found that carrying out major maneuvers in the face of an offensive is very difficult.[3]

Whatever its shortcomings, NATO does provide a unified command upon its members. This framework for cooperation is far more explicitly developed than any cooperative arrangements forged before World War II. Questions as to whether NATO members' armed forces are equipped properly and whether doctrine truly reflects capabilities remain, but the framework for resolving discrepancies between equipment and commitments exists now.

Then, again, the Soviet Union is not simply Nazi Germany in another guise. Nazism was very much a personal movement, and Hitler moved as rapidly as he did because he wanted to achieve his Thousand-Year Reich within his own lifetime. Then, too, Nazism was a movement defined by race, broadly, the Germans of Europe, and its aspirations were confined to the Eurasian land mass. This simplified the strategic problem in 1940 compared with those faced by western strategists today. There is no geographic limit to the regions where Marxist-Leninist principles—as understood by the Soviets—may not apply. As such, contemporary strategists face a much more institutionalized antagonist, one whose leadership is not a brilliant but erratic charismatic figure as Hitler but a far more patient collective authority prepared to bide its time.

Hitler opted for a blitzkrieg strategy to avert a war of attrition, which could lead to social revolution, as it had for Germany in 1918.

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[3]For a current discussion of counterattack see Samuel Huntington, "Conventional Deterrence and Conventional Retaliation in Europe," *International Security*, Vol. VIII (Winter 1983-1984).

His own power was not absolute, and he doubted whether the German Volk would fight such a war or even accept the sacrifices needed to prepare for such a war on the massive scale his cautious generals advised. Rather than endanger his regime, he acted earlier than they thought prudent, employing a new doctrine—the blitzkrieg.

P. H. Vigor's recent analyses of Soviet military doctrine[4] argue the view that the Soviet Union pursues its own form of blitzkrieg strategy for the same reason as Hitler—to avert a war of attrition its own command economy could not sustain. Its armies' cadre system of mobilization resembles the Germans' in maximizing the value of a limited number of first-rate weapons by concentrating units so equipped at the decisive point.

It is questionable, however, whether with satellite reconnaissance, sufficient surprise could be achieved for the Soviets to attempt a true blitzkrieg. Instead, an attaque brusquée may be more likely if the costs of its miscarrying were not so great.

But when would the necessary correlation of forces be achieved? Perhaps the most apt parallel is to think of a Soviet attaque brusquée not against central Europe to encounter powerful British, American, and German forces but against a politically isolated member or a strategically sited neutral. Here, the parallel with the late 1930s becomes truly ominous, for a series of individual coups that appear peripheral might well have a powerful cumulative effect, both in outflanking NATO and in encouraging greater risk-taking, in demoralizing NATO and in strengthening the Pact.

Soviet reasoning behind its blitzkrieg doctrine may be similar to the Nazis'. Certainly, it aims to win any conflict quickly by applying overwhelming force at the outset. This strategy maximizes the attacker's edge in choosing the scene of battle so limited forces can be used at decisive points. It presents Allied planners with the same temptation to be strong everywhere (and nowhere) or to try to guess the most likely axes of attack and deploy to meet it ahead of time.

If, however, we think of a blitzkrieg not as a repetition of 1940 methods with newer equipment but as a tactical package destroying the enemy's forces by neutralizing his command and control network, it becomes possible to imagine a nuclear blitzkrieg. Low-yield nuclear precision-guided munitions could be fired from a standing start.

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[4]Peter H. Vigor, *Soviet Blitzkrieg Theory* (New York, 1983) and *The Soviet View of War, Peace and Neutrality* (London, 1975).

Advancing armies could "hug" cities and so neutralize NATO retaliation in kind.[5]

Troubles outside Europe periodically sapped the strength of France and Britain in the interwar years. The possibility of feints outside Europe, whether Soviet-directed or spontaneous events that have the effect of diverting Western attention and military resources, remains very strong, and it complicates the planning process.

The presence of nuclear weapons is the greatest alteration in the postwar world. Nuclear weapons might make any invasion of Europe not worth the risk. Certainly, their existence increases the uncertainties at many levels of Russia's attempting to conquer Western Europe. The damage wrought by nuclear weapons might prevent a rapid advance on the Guderian pattern and very rapidly produce a stalemated battlefield like that of the First World War.

Merely the presence of nuclear weapons as well as their effects if used would likely produce one common product: a greater reliance upon contingency plans than existed before the advent of nuclear weapons. The actual occurrence or threat of extensive nuclear detonations' destroying command-and-control networks may very well encourage less reliance on "seat-of-the-pants" command, for fear of its tenuous continued functioning. In such circumstances prehostilities plans would be truly decisive, for they would be the only available guidance. Alternatively, their presence as well as that of missiles with either nuclear or conventional warhead would accelerate events on the battlefield and compel field commanders to respond rapidly, flexibly, and not at all according to a plan prepared in peacetime.

Understanding the Planning Process

Although the conceptual parallels noted above are important, the most easily implemented lessons of the interwar years relate to the planning process. NATO is faced with the same basic tradeoffs as were the Allies in the interwar years, for example:

- How best to mix actives and mobilizable forces.
- How to match available forces and budgets with defensive liabilities.
- How best to assess and employ reserve formations.
- How best to mix fortifications and prepared defenses with maneuver forces in Central Europe.

[5]See Gen. Pierre Gallois, "The Soviet Global Threat and the West," *Orbis*, Vol. 25 (Fall 1981) and "When a Nuclear Strike Is Thinkable," *Wall Street Journal*, March 22, 1984.

More generally, how can NATO balance its preparations to deal with the threats posed by a Warsaw Pact war of attrition, attaque brusquée, and blitzkrieg? Clearly, an obsession with any one or two of these can leave us vulnerable to any uncovered threats.

Part of the answer to this fundamental problem was addressed above—NATO needs stalwart domestic and international support to provide the wherewithal to prevail against any of these threats.

But within contingency planning alone there are steps that would appear to make good use of the lessons from the past:

- **NATO contingency plans should possess branches that allow for the gradual definition and refinement of the plans.** Quite specifically, NATO planners should avoid generating large numbers of discrete, divorced plans. The Allied Supreme Command in 1940 had a modest chest of plans, but they were discrete plans without flexibility built in to allow for the unexpected. The unforeseen was dealt with by ignoring it.

  Any war in the future is likely to be most confusing, to be surrounded by its thickest fog, at its outset. The enemy will make the greatest effort to disguise its objectives and means. To assume that at this very stage NATO military leaders will be able to choose properly among contingency plans that are posited upon different threats is to build in the makings for disaster.

  Political considerations oblige NATO to deploy its units very far forward, in effect committing it to a sort of continuous front before the main direction of a Soviet thrust could be known. The examples both of Belgian defense policy and of the rigid Allied commitment to the Breda Plan do not have to be retold.

  If current plans posit a typical scenario and tacitly assume that the commanders will modify them to fit the particulars of the occasion, they assume an amount and quality of information, and a degree of control that any future commander may very well not possess. What is intended in peacetime planning to represent a canonical threat and response may take on a momentum and rigidity that no peacetime planner ever intended.

- **Avoid early overcommitment or overly rigid commitment.** Such a lesson appears at first glance as a simple truism. However, what arrangements and plans *current* to NATO allow for

— Lateral shifts of forces from one corps sector to another, to include requisite logistic support. Even more so, what allowances are made for shifts skipping one or two corp sectors?
— Alternative commitments of operational reserves to sectors relatively distant from their areas of deployment?
— Alternative commitments of French forces to Northern Army Group (NORTHAG) or Southern Army Group (SOUTHAG) as demanded by the exigencies of war?
— Alternative LOCs to bypass damaged transportation infrastructure and exploit additional French and even Spanish Air and Sea Ports of Debarkation (APODs and SPODs)?

- **Plan for counterattacks.** Offensive capabilities require several elements, including: mechanized forces; doctrine and training; tactical and operational planning; and strategic planning and execution that lays the foundation for decisive opportunities to arise. NATO will no more stumble upon decisive offensive operations than France and its allies would in 1940. The groundwork must be carefully prepared with that intention in mind from the beginning.

- **Plan for termination.** It may be an implicit assumption that any future war of aggression by the Warsaw Pact would terminate satisfactorily with conditions of status quo ante bellum. But wars do not simply end. In the vast majority of cases, termination is forced upon the losing side, either for fear of greater losses yet to follow or by direct means through occupation by the victorious side.

  It is in no sense clear how the Warsaw Pact would come to the conclusion that the status quo ante bellum would be an adequate, much less satisfactory or preferable, outcome to a war, even if their offensives were stalled. Although there is no general answer to this dilemma, specific plans should be constructed with lengthy consideration of how termination should be brought about.

Returning to the basic question of how NATO can plan to counter the three major threats of a protracted war of attrition, an attaque brusquée, and a blitzkrieg, there are a handful of general lessons that relate to the assumptions that underlie contingency planning.

- **The long war/short war division.** NATO has appeared to evade the question of war duration and its effects upon the

Warsaw Pact's military options. While war stocks are specified in terms of days of action, and the deployment of U.S. forces from the continental United States appear to be keyed to a postulated timetable, these considerations do not seem to be integrated into an assessment of how the Warsaw Pact could exploit NATO planning assumptions.

In the winter of 1939/1940, French and Allied conscripts were kept in the field with the expectation that a German attaque brusquée threatened. The onset of demoralization from the mobilization, and the need to rotate some personnel back to important occupations while keeping others in the field, contributed to the lethargy of the defense. Is NATO truly better prepared to deal with a period of tension in which conscripts would be forward deployed and reserves called up?

Certainly the case of Israel before the Yom Kippur War in October 1973 argues against our hopes. An Israeli mobilization in May 1973 was deemed to have cost the economy severely, contributing to the desire to hold off mobilization in October 1973. A large mobilization of West German reserves would be far more expensive. A matching mobilization of Belgian and Dutch reserves might be equally costly, and more difficult to maintain.

- **The enemy's eastern front tie-down.** As with Hitler's Germany, Russia must maintain a portion of its strength on its eastern front. Political assumptions of Chinese behavior can always be falsified, just as the tacit and comforting assumption of Germano-Soviet emnity proved false in August 1939. Plans that take a given political constellation for granted rest on very shaky foundations.

Direct Similarities and Lessons

The weakest link in drawing lessons from the past appears in searching for direct similarities and lessons to be drawn from past experiences. Technological advances in particular have made these few and far between.

A major case can be made from the experiences of the interwar years: the roles and characteristics of prepared defenses or fortifications. As discussed in Appendix A, fortifications can serve strategically offensive as well as defensive roles. We can no more deduce strategic

intentions from concrete and steel than from other "defensive weapons."

The case can be made that fortifications are liable to have an effect beyond that warranted by their physical nature. That is, whatever the reasons for their construction, fixed defenses acquire psychological freighting—creating a "Maginot mentality." Neither the French nor the Germans seriously contemplated standard offensives to breach prepared defensives. The Germans opted for strategic maneuver and special forces operations, as in taking the Belgian Fort of Eben Emael. The French opted for inaction.

Although prepared defenses are not in any sense a panacea answering the need for couverture against the attaque brusquée as well as a force multiplier to defeat large mobilized forces, they offer NATO advantages largely slighted hitherto. They can be used to canalize forces. They do force an attacker to concentrate forces to attempt a breakthrough, presenting a richer set of targets and decreasing surprise. They can free forces for alternative uses. They can offer added protection against an attaque brusquée.

It is ironic that one of the main reasons for the rejection of fortifications is a misreading of history. While opponents have raised a number of valid concerns—including their costs and political difficulties in domestic German politics—it is clear that one that has contributed greatly has been the common perception of the "Maginot mentality" they might instill. In this stereotype, the military and political leaders behind the Maginot Line buried their heads in concrete and steel to forgo the threats across their borders.

The leaders of France, Britain, and Belgium certainly committed error after error in their dealings with a resurgent Germany. However, it is a mistake of vast oversimplification to see the Maginot Line and other prepared defenses as the cause of these errors.

A close study of the past enhance's one's respect for defeated leaders, who are not cartoon figures but real world strategists who grappled with their future as best they saw it.

Appendix C

SELECTED BIBLIOGRAPHY

Enough books have been written on the Battle of France to fill a small library, but comparatively few shed much light on the prewar planning process. Memoirs, contemporary accounts, and anecdotal tactical studies abound. The dearth of material on planning reflects the loss of archives to some extent as well as the longstanding and great interest in the technique of blitzkrieg, especially the use of tanks. That aspect of the campaign has generated myths of its own, which this study corrected where appropriate, but with only a few exceptions studies written in the context of that debate shed little light on precampaign planning.

BOOKS

France

The most useful books on French prewar and wartime planning are General P. E. Tournoux, *Défense des Frontières* (Paris, 1960); Col. F. A. Paoli, *L'armée Francaişe de 1919 à 1939*, 4 vols. (Paris, 1974); Jeffery Gunsberg, *Divided and Conquered: The French High Command and the Defeat in the West, 1940* (Westport, Connecticut, 1979); and Robert J. Young, *In Command of France: French Foreign Policy and Military Planning, 1933–1940* (Cambridge, Massachusetts, 1978). Helpful on the French army itself were Guy Chapman, *Why France Fell* (New York, 1969), and Alastair Horne, *To Lose a Battle: France 1940* (Boston, 1969). Anthony Kemp, *The Maginot Line* (London, 1981), provided details.

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intake would be taken from those few born during the war, and France would then face the "hollow years" even less prepared to defend itself.

Tactically, the Maginot Line formed part of French frontier defenses against a sudden attack by the renascent Reichsheer. After 1926 or so, it was thought capable of carrying off a lightning attack without either a declaration of war or mobilization. Permanent works on the scale of the Maginot Line all but ruled out such a strike.

The Maginot Line contained forts of varying size, ranging from ouvrages, mighty individual forts about 5 km apart, to casemates with antitank and machine gun armament that held the intervals between ouvrages. The forts extended to a depth of as much as 90 meters below ground, held garrisons of between 200 to 1200 men, and were armed with artillery in retractable turrets, principally the classic 75 mm field piece but also an 81 mm mortar and a 135 mm howitzer. Surprisingly, the entire French network of frontier defenses had only 344 such guns. The Line's observation system depended upon aerial reconnaissance, a misfortune, as the war brought home.

The essence of the Line was not its formidable but limited number of forts but the continuous line formed by lesser works and to be held in wartime not by specialist fortress troops but by field formations, interval troops. An invader would confront in this order:

1. Fortified houses, permanently manned by frontier guards. Defensive demolitions, barbed wire, antitank mines, and rails embedded in concrete formed this first line.
2. Forts and casemates as previously described. A system of obstacles similar to those protecting the front line confronted the invader at this stage, and antitank ditches and an organized system of covering fire from the casemates added to the depth.

In all this, the interval troops were fundamental. In effect, they were to occupy a ready-made trench line, albeit one on the lines of the German Hindenburg Line of 1917, not improvised trenches. The weakness of the Line was its lack of antiaircraft artillery and of heavy artillery, which led the French high command to garrison it plentifully even as blitzkrieg tactics were studied and the role of precision dive-bombing appreciated.

In addition to the Maginot Line, there were defensive sectors all along the frontier, sometimes spoken of as forming part of the Maginot Line. But the defensive sectors were very modest improvised field works without any permanent troops, requiring the calling up of the couverture. The British, who manned the Lille sector in 1939, found

that the works on their front consisted of only a thin line of pillboxes and an incomplete barbed wire line.

BELGIAN FORTIFICATIONS

Before the First World War, the Belgians had entrusted their security to forts and to international law, neither sufficient in the twentieth century. Beginning in the late 1920s, the Belgian government appropriated money to construct a new ring of three forts surrounding Liège and its 12 1890s-era forts (which were modernized). As part of this, they added a fourth fort commanding the junction of the new Albert Canal and the Meuse at Eben Emael.

The forts were merely the strongest parts of a continuous but in-depth position barring the Aachen Gap, including efforts to outflank it from the immediate south and north. The lesser works resembled the Maginot Line in that a system of pillboxes and "defended localities" disguised as houses began at the border, followed by a belt of prepared demolitions guarded by sentries, and then by a continuous line of pillboxes forming the defenses proper.

The forts' artillery exceeded that of Maginot Line fortresses and included antiaircraft weapons. It consisted otherwise of mutually supporting field pieces, machine guns, and searchlights.

The fortresses surrounding Namur and Antwerp were refurbished and strengthened with earth, the lack of which had made the prewar all-concrete forts acutely vulnerable to heavy howitzer fire.

THE SIEGFRIED LINE

Germany commenced to build fortifications in the Rhineland after remilitarizing it in March 1936, but the Siegfried Line, Hitler's answer to the Maginot Line, did not get under way until May 1938. Built ostentatiously, it was a position in depth for infantry to hold, something Hitler never expected it to have to do. It extended the length of Germany's western border to a depth of 30 km in places.

Tactically, the Siegfried Line was designed to channel any attack into progressively stronger defenses. Its initial frontage was lightly held, but a system of integrated concrete strongpoints farther back constituted its strength. Troops with machine guns and antitank weapons would hold them. Mutually supporting and blending into the landscape, they provided fixed points around which field troops could maneuver, thinking similar to French army doctrine of the twenties. It was designed not to preclude mobile warfare but to make it possible—

on a ground of one's choosing. Pétain had spoken of a "battlefield prepared in peacetime," and this was one. There were no deep forts and few armored turrets.

Strategically, its purpose was to stave off a French offensive while German forces dealt with Czechoslovakia. For this mission its political value far exceeded any potential military role it might have played had it been put to the test. But it was intended to discourage France from attempting to interfere while Germany dealt with France's allies in the east. To this end, the Siegfried Line was an instrument of German political warfare, not a serious part of its military planning. Extensive publicity highly exaggerated its capabilities. At first, photographs of the Oder-Warthe works built in 1934–1935 were passed off as those of the Siegfried Line. Later, photographs of Czech fortifications that fell into German hands after the Munich settlement were shown as representing the Siegfried Line; even photographs of pre-First World War German forts at Metz subsequently incorporated into the Maginot Line were exhumed from archives to illustrate the new German line.

Table A.1 compares the French, Belgian, and German fortifications.

Table A.1

FRENCH, BELGIAN, AND GERMAN FORTIFICATIONS

	France	Belgium	Germany
Position	Maginot Line along Franco-German border, Lauterbourg to Sedan. Other defenses along entire frontier.	Forts blocking Aachen Gap around Liège. Albert Canal from Liège-Antwerp	Siegfried Line along entire western border
Built	1930–1936.	1929–1936.	1938–1940.
Immediate Military Purpose	To block easiest German invasion route into France.	To block easiest invasion routes from Germany or through Netherlands.	To secure entire border against French attack.
Strategic Role	1. To secure couverture against attaque brusquée. 2. To economize on manpower and allow field army to be used for mobile operations. 3. To form continuous front in war when supported by field units as well as specialized fortress units. 4. Canalize German advance to set up for counterattack.	1. To secure couverture against attaque brusquée. 2. To block invasion before it reached Flemish plain and could deploy on alternative axes.	1. To bluff French into thinking any offensive operations would be prohibitively costly. 2. To free bulk of actives for offensive operations elsewhere. Most of line held by reserves, militia.

Appendix B

THE ARMIES

FRANCE

The French army's divisions fit into several patterns: **Actives** whose ranks comprised regulars, conscripts, and the first three years of reserve classes:

1. Infantry divisions whether Metropolitan, Colonial (European volunteers), or North African (European officers and NCOs, native ranks) enjoyed the highest standard of equipment, especially in artillery and antitank weaponry. Upon mobilization, actives were used for the encadrement of reserve divisions. Their transportation was horsed, notably that of their antitank guns. Each had two regiments of artillery, as did "A" reserve divisions discussed below. There were ten active divisions, ten North African, and seven colonial.
2. Motorized infantry divisions were similarly armed and equipped but with requisitioned civilian transport because only a tenth of the 300,000 vehicles required were government-owned. Seven motorized divisions were ready in May.
3. Fortress troops accounted for 20 percent of the actives, 42 regiments, and were the equivalent of five divisions.
4. Cavalry divisions consisted of one horsed and one armored brigade. The armor included medium tanks, armored cars, and motorcyclists.
5. DLMs contained light and medium tanks and a battalion of mechanized infantry. They were mechanized cavalry regiments with 240 AFVs. Confusingly, all three served in General Prioux's "Cavalry Corps."
6. DCRs were heavy armored formations, originally intended to have a brigade of infantry with them and heavy artillery. The exigencies of rearmament and war did not permit this. They were formed only after the outbreak of war; the last DCR, commanded by Brigadier de Gaulle, was not formed until after the German offensive began.

Reserves constituted 80 percent of the French strength:

1. "A" reserves came from less recently discharged reserve classes and had a slightly lower standard of equipment and transport. When constituted, "A" divisions took officers, NCOs, and other ranks from the actives. The ranks averaged 32 years old. There were 17 "A" divisions in May 1940.
2. "B" reserve divisions came from more distantly discharged reservists, having an average age of 36. In 1940 many had had only one-year's training, their service dating from 1928–1935. NCOs and generally all but the three most senior divisional officers were reservists, too. They had only one artillery regiment, and they stood last in the queue for weapons, especially for scarce antitank weapons.

From 1927–1928 when one-year service became a reality, the proportion of long-service regulars fell to just one-seventh. The French army became more and more a cadre force and depended on reservists for an increasing share of its officers, NCOs, and enlisted men. Its cadre was its 100,000 regulars, the same as the Reichswehr. A point worth keeping in mind when contemplating attaques brusquées is that French mobilization plans discussed above distinguished between the reserves proper and the disponibles, literally, the "availables." The disponibles were the three most recently discharged conscript classes that were by terms of their service available for recall on short notice. Although this gave the army a seeming flexibility in differentiating two kinds of reserves, this system effectively made the recall of the disponibles a politically very chancey move, one that carried with it all the stigma of general mobilization. It proved a grave handicap at the time the German army reoccupied the Rhineland and thereafter when a rapid response was required.

French actives were to form the basis for wartime expansion, and since the war would be won or lost in the opening campaign, mobilization aimed to provide the largest number of effectives at that stage of the conflict. With the development of the Maginot Line and the emphasis even among field units on materiel and firepower over raw manpower, the importance of specialist troops increased, too. To an increasing extent, the French army depended upon black and North African troops as infantry.

Not until 1935 was two-year service restored, for the advent of the hollow years afforded an annual intake of only 120,000, enough for just half the army authorized by the 1928 Army Law.

BELGIUM

Belgium's peacetime army consisted of six infantry and two cavalry divisions organized into three army and one motorized (with motorcycles or trucks) cavalry corps. Fully a third were professional soldiers, a high percentage for the time. Military service in the late thirties was for 17 months. Partial mobilization, as at the Munich crisis of September 1938, allowed Belgium to put 12 divisions on a wartime footing by calling up the most recent conscript classes released to the reserve. Upon general mobilization, 20 infantry divisions, both cavalry corps and fortress troops, could be raised—650,000 men. This compared with the 170,000-man army of 1914 and, it might be added, with the 500,000 strong BEF of 1940.

After Munich, however, a more flexible system of five-stage mobilization was prepared, allowing for a graduated response depending on circumstances. Stages A though C involved the calling up of successively more distantly discharged reservist classes. Stage D mobilized the army's rear services, evacuated civilians from frontier zones, and recalled soldiers on leave. Stage E was full mobilizaion, including the proclamation of a state of siege. The King assumed powers of full command at this time.

Apart from the Chasseurs Ardennais, none of the infantry were motorized. Belgium had two Chasseur divisions, really motorized light infantry, each of whose brigades included a cyclist battalion. They did not have the field artillery of ordinary infantry divisions. Soldiers were trained for field engineering, principally demolitions, but also for the erection of obstacles. Their green berets bespoke their elite status.

Fortifications did not come cheap, and the modernized Belgian army fell short in several areas: tanks, heavy and field artillery, and antiaircraft guns. Its air force was obsolete in 1940.

GREAT BRITAIN

The BEF by May 1940 consisted of ten divisions (five regular, five territorials), all motorized with requisitioned civilian transport. It had only one tank brigade (but with only one company's worth of heavy infantry tanks) when the fighting began.

ARMORED FORCES

The contemporary French intelligence of 7000–7500 German tanks had no basis in fact. General Guderian gives 2200. German archives

raise this to something over 2400 but well under 3000.[1] The Allies had virtually as many tanks as the Germans on 10 May 1940.

Tank types here classed as "light (cannon)" had cannon that could not penetrate the armor of tanks built in the late 1930s. Almost all the British heavy tanks had nothing but machine gun armament.

Table B.1 briefly compares the tank inventories in May 1940.

Table B.1

ARMOR INVENTORIES IN THE CAMPAIGN IN THE WEST

Type	French	British	German
Light (machine gun armament)	1800		525
Light (cannon)	500		950
Medium			650
Heavy	800	100	300
Total	3100	100	2425

NOTE: 2300 of the French tanks were modern (Gunsberg, op. cit., p. 102)

[1]Alastair Horne, *To Lose a Battle: France 1940* (Boston, 1969), p. 182.

Appendix C

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