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FALL 2013 NUMBER 1

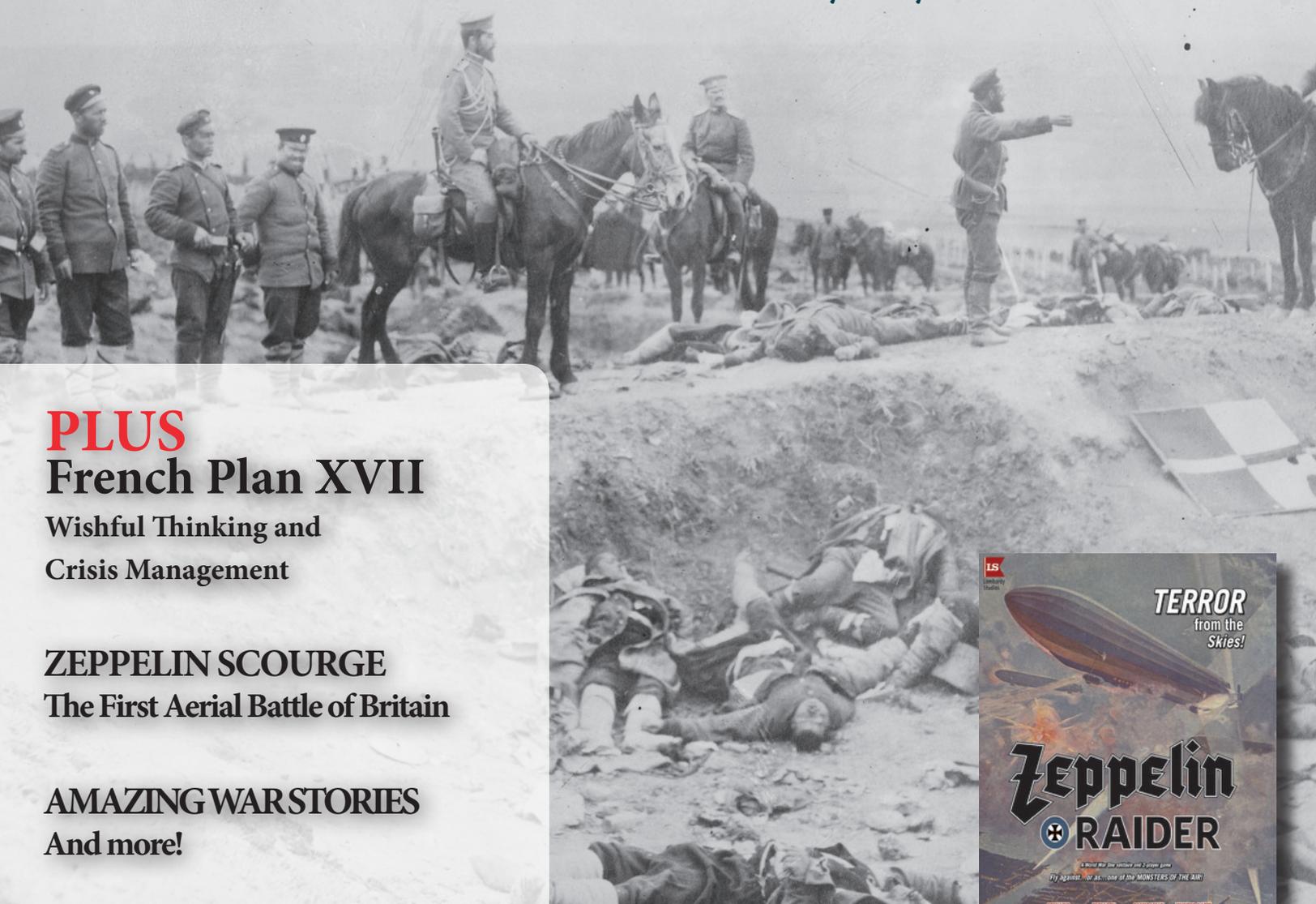
World War One

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THE BALKAN WARS 1912-13

Prelude to the Great War, or the Start of the World War by Proxy?



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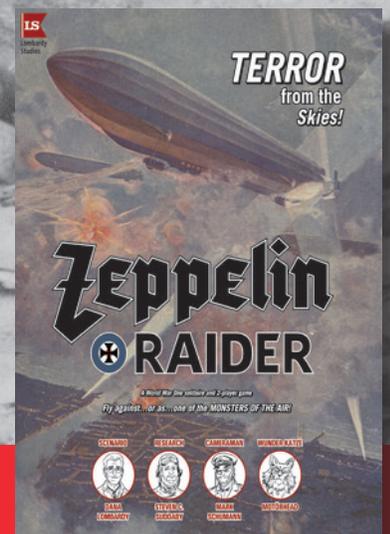
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John Cooney

Publisher

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The Balkan Wars 1912-13: Part 1 Prelude to the Great War

By Capt. Richard A. Lechowich, USA with maps by Philip Schwartzberg

Historian Richard C. Hall described the Balkan Wars of 1912-13 as "the first all-European conflict of the twentieth century [that] ... opened a six-year period of conflict in Europe and in a wider sense, a Great European War lasting from 1912 to 1945." This article recounts the story of the First Balkan War. Part 2 will focus on the hostilities between the victorious allies.

The Twentieth Century opened with several political and social upheavals that included militant nationalism among the populations of several newly formed European nation-states in the Balkan region. Caught up in this process were the peoples of the multi-ethnic, multi-lingual Ottoman Empire. Clinging to its last possessions in Europe, the Ottomans were struggling with an internal modernization process, called the Tanzimat, in an attempt to keep up with the Western world. But this failed due to a combination of internal resistance and European interference. Weakened on all fronts, the Ottomans began to lose their grip on their Balkan provinces.

Balkan peoples rebelled against Ottoman rule with increasing frequency...

The Balkan peoples rebelled against Ottoman rule with increasing frequency throughout the nineteenth century, aided largely by Russia, Austria-Hungary, France, and Britain. First the Greeks established an independent state in 1828.



Ottoman cavalry pose on their mounts in 1912 (Library of Congress)

After the disastrous Russo-Turkish War of 1877-78 and the Congress of Berlin, several other independent states arose: Serbia, Bulgaria, Montenegro. Fired by nationalist ideals, these nations dreamed of expanding their "natural borders" at the expense of the Ottomans... and of each other. The conflicting goals of the Balkan states, the Great Powers, and the Ottomans paved the way for the Balkan Wars of 1912-1913.

THE COMING OF WAR

Several events combined to make the Balkan situation critical in the early 1900s. Montenegro, Serbia, Greece, Bulgaria, and Romania all focused intensely on consoli-

dating and expanding their territories. This multi-sided religious, linguistic, political, economic and military conflict centered primarily on control of the area known as Macedonia. Both Bulgaria and Serbia claimed vital interests in the ancestral lands of Alexander the Great. Serbia and Montenegro also claimed that their economic survival was dependent upon obtaining an Adriatic port, something that could only be done at Ottoman expense by occupation of some or all of Albania. Greece coveted Macedonia and Thrace, appealing to the once glorious history of the medieval Byzantine empire and an ambition to rebuild it on the ruins of the

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Ottoman state that had captured Constantinople in 1453. Romania, which felt it was unfairly dealt with at the Congress of Berlin that created it and the other independent Balkan states in 1878, planned revenge largely at Bulgaria's expense.

Further complicating the situation, a patriotic Macedonian nationalism began to emerge. The Internal Macedonian Revolutionary Organization (IMRO), formed in 1893, launched a guerrilla insurgency campaign based on the slogan "Macedonia for the Macedonians." As in the past, internal revolt and violence acted as a catalyst for increasing outside strategic interest and interference in the Balkans.

By 1699, the Turks were no longer a threat to Europe...

The two European powers primarily concerned with events in the southwestern portion of the continent were Austro-Hungary and Russia. Under the banner of Pan-Slavism, Russia encouraged Montenegro, Serbia, and Bulgaria to expand at the expense of the Ottomans and Austrians. For their part, the Austro-Hungarian aristocracy struggled to maintain a multi ethnic empire with large Slavic minorities, and could not tolerate increasing Russian influence over increasingly restive groups seriously contemplating secession from the empire. Thus, these two Great Powers were inexorably drawn into the local quarrels. The Turks, increasingly in need of diplomatic and military support, received some aid from the British and Germans. The British regarded the Dardanelles as a vital interest: Ottoman control could keep the Russian fleet bottled up in the Black Sea and made

British domination of the Mediterranean feasible. The Germans sought to gain their own foothold in the Near East and eastern Mediterranean by increasing their economic and military influence over the Turks through ventures such as the Baghdad Railway, military training, and technical advisors. This constellation of competing European interests was, from the perspective of the Great Powers, an aspect of their increasing imperial competition throughout the world. For the Ottomans, however, the Balkans were the center of a struggle for imperial existence.

Increasing European modernization had propelled them ahead of the Ottomans. By 1699, the Turks were no longer a threat to Europe, and 1774 marked the beginning of territorial exchanges that were always at the expense of the Sublime Porte, as the Ottoman government was sometimes known.

The once feared Ottoman army with its slave-elite janissary warriors was reduced to the role of internal police, constantly crushing rebellions that flared up throughout the empire. These actions proved counterproductive as repression only spurred nationalism, especially in the Balkans. In the late 1800s, various factions arose within the Ottoman military and bureaucracy determined to modernize the Empire, particularly in the military sphere, in order to maintain their hold on power.

The upshot of this complex interplay of forces was the creation of a truly revolutionary situation inside the Ottoman Empire. The new Western-trained military elite began plotting to overthrow the autocratic Sultan Abdulhamid II (r. 1876-1909) around the turn of the century. Their goal was to replace not just the man but the system he embodied: the indifferent, withdrawn leader who left vital policymaking to hacks and toadies more interested in political infighting and personal enrichment than genuine reform.

Their party, known as the Committee of Union and Progress (CUP), or the Young Turks as they were popularly known, seized power in 1908. This revolution, and the Young Turks' attempt to compete with Europe, moved the situation much closer to violence. The Balkan peoples saw their newly won independence, or hopes of joining or creating ethnic homelands, threatened by competent and militarily aggressive leadership in Constantinople.

... the Young Turks, as they were popularly known, seized power in 1908.

CREATING THE BALKAN LEAGUE

The Austro-Hungarians, taking advantage of the turmoil resulting from the Young Turk revolution, boldly annexed Bosnia-Herzegovina in 1908. Alarmed, the Serbians and Russians began to seek ways to counter the apparent threat, which seemed to have the support of the Triple Alliance that included Germany and Italy as well as the Austro-Hungarians. The Russians proved quite creative on the diplomatic front. They made overtures to the Italians, and in October 1909 their two governments agreed on a fairly sophisticated plan for the division of additional Ottoman spoils. Italy would attack the Turks in Libya in September 1911. Libya was technically under Turkish suzerainty, but the Ottomans proved unable to defend their African province against external attack. Meanwhile, the Russians would encourage the Balkan states to form an alliance system that aimed to remove the Ottomans from Europe completely. The plan had the double benefit for the Russians of



diverting Ottoman attention and resources from Europe to North Africa, while weakening the Triple Alliance at a critical moment in its campaign to organize and dominate the Balkans.

The Russian initiative finally bore fruit. The first agreement was signed between Bulgaria and Serbia in March 1912. Macedonia, the center of contention, was formally partitioned (at least on paper). Territory north of the Sar Mountains was to be Serbian; lands east of the Struma River and Rhodope Mountains went to Bulgaria. Secret clauses also provided for wartime troop strengths. Once again, astute Russian diplomacy prevented a breakdown in cooperation that the Turks had counted on for decades (and perhaps centuries) to maintain control over southeastern Europe.

In May 1912 Greece and Bulgaria formed their own alliance, followed in October by Montenegro, which signed treaties with Serbia and Bulgaria. The piecemeal nature of the Balkan League was a diplomatic necessity, but it created some serious and lasting problems. The key flaws in these agreements can be summarized as follows:

- Failure to partition all of Macedonia before the fighting began.
- No provisions made to deal with emerging Albanian demands for independence.
- No attempt to placate Romanian demands for territorial compensation arising from the rearrangement of borders.
- No contingency planning for victory over the Ottomans, which would surely invite imperialistic Great Power intervention to “protect the Dardanelles” if nothing else.

These issues would quickly become paramount as war approached.

THE FIRST BALKAN WAR

Many European observers predicted a Turkish victory. The new Balkan states seemed to lack the military training and weapons available

to a (somewhat) great power like the Ottoman Empire. However, the increasing politicization of the Ottoman officer corps, and the disruptions resulting from the modernizing reforms of the Young Turks, proved fatal to effective Ottoman resistance.

Many European observers predicted a Turkish victory.

The First Balkan War officially began when tiny Montenegro attacked Ottoman garrisons in Albania on 9 October 1912. Montenegro sought to conquer northern Albania and seize the vital seaport of Scutari (Shkoder). This, like most of what transpired from then on in the region, went against the express wishes of Russia and other interested Great Powers. The Montenegrans battered in vain at Scutari for most of the war, taking massive casualties. The problem was that they lacked heavy artillery, and so could only make futile infantry assaults. But they did fulfill the League’s objective of drawing Turkish attention and reserves to the far western portion of the theater, away from where the main Allied offensive was set to occur.

On 18 October 1912, the Serbs, Bulgarians, and Greeks attacked. The Allies planned a coordinated envelopment of the partially mobilized Turkish forces. The Bulgarians, with three armies under the operational command of Major General Ivan Fitchev, were to occupy Thrace and capture the fortress of Adrianople. If possible, they then would take Constantinople. The Serbs, also organized in three armies under General Radomir Putnik, were to move down the Vardar valley in the north. Meanwhile, the Greeks under Crown Prince Constantine attacked from the south.

Seeking to disrupt Allied opera-

tions, the Turks attempted to stage an attack before the League armies completed their mobilizations. This would fulfill the aggressive doctrine taught by the Ottomans’ German advisors who had used it to such good effect in the previous century against Austria and France. But the offensive was poorly planned, lacked sufficient logistical preparation, did not use adequate reconnaissance, and had no clear operational or strategic objectives. Thus, the Turks left the cover and logistical base of their mobilization sites where their defense would have had numerous advantages, and instead lurched forward into a meeting engagement with the more numerous, better prepared, better led, and much more highly motivated Allies. The result was a serious defeat that broke what spirit the Turkish armies initially possessed. Much of the problem was that the Turkish forces lacked transport, logistical support, and medical supplies to conduct a proper retreat (much less offensive). The Turks, disorganized and demoralized, fell back on their fortress network of Janina, Scutari, and the Chatalja Line outside of Constantinople.

The result was a serious defeat that broke what spirit the Turkish armies...

The Allies were quick to maximize their advantage. Allied troops, motivated by years of anti-Turkish propaganda, pressed their attacks with real ferocity. After the initial contact, the Ottoman front was essentially broken into two parts: Thrace and Macedonia. The Bulgarians were in Thrace while the Serbs and Greeks faced Macedonia. The Bulgarians, in particular, experienced some quick successes.

These generated a pattern of expectation and overconfidence that laid the foundation for Bulgarian aggression, and which did so much to bring about the Second Balkan War on the heels of the first.

The Bulgarian invasion began on 18 October, the same day as the other League allies, when their forces collided with the Turkish eastern army under Abdalla Pasha at the towns of Siliolu and Kirk Kilissa. The battle raged most intensely from 22 to 25 October, and the outcome was decided by superior Bulgarian tactics and training. Initially, stiff Ottoman resistance was beaten down by Bulgarian artillery, which quickly gained fire superiority. The Bulgarian infantry was also superior, particularly in marksmanship and willingness to maneuver under fire. Turkish troops, poorly trained, panicked and ran. Withdrawals under fire quickly turned into routs. Abdalla Pasha lost much of his artillery and logistical support during the retreat to the line running along Lule, Burgas, and Bunar Hisar.

Turkish troops, poorly trained, panicked and ran.

The Bulgarians, seeking to finish the campaign, pursued and quickly engaged them again. The next battle lasted from 28 to 30 October. The Bulgarians exploited the increasing Turkish demoralization, desertion, and administrative collapse. After some initial resistance, the Ottoman infantry was swept away, and the retreat was only halted under the shelter of the Chatalja fortifications near the imperial capital of Constantinople. The fortress of Adrianople, ancient capital of the Turks, was left to its own devices and was quickly besieged.

For all their initial success, the



Territorial Losses of the Ottoman Empire in the First Balkan War

League allies were encountering problems. The pursuit to the Chatalja Lines clearly revealed signs of strain. Lacking sufficient rail transport, the Bulgarians had to rely on wagons and pack animals to move their supplies. This proved inadequate, and troop health began to suffer as food, tents, and medical support became unavailable. Cholera first appeared in the Ottoman camps, but soon spread to the besiegers of Adrianople and the Chatalja lines, killing thousands. Seeking a quick decision, the Bulgarians decided to carry the assault through to the capture of Constantinople itself. They attacked the Chatalja positions on 17 and 18 November with the intention of breaking straight through to the

Ottoman capital. Their attack was repulsed with great loss. The problem was that the Bulgarians lacked sufficient artillery ammunition, again because of their lengthening lines of supplies and communication. After the initial repulse, the Bulgarians settled into a more deliberate siege. This ran up the casualty list on both sides, particularly as a result of disease, but no breach of the Turkish works was forthcoming. The stalemate lasted until an armistice was signed on 3 December 1912. Adrianople, also under siege, remained in Turkish hands.

The Turks’ successful resistance from fixed fortifications was due to several factors. Fighting from trenches both strengthened Otto-

man morale and made their firepower more effective. Fieldworks protected the troops and made maneuver unnecessary, thereby overcoming shortfalls in both morale and training. The fortresses contained many machineguns and much artillery, and had supplies stockpiled inside them, which solved local logistical problems. Also, on the Chatalja lines, regular troops brought up from the interior of Anatolia stiffened resistance and conducted sharp counterattacks that halted local Bulgarian successes. The Bulgarians, on the other hand, were at the end of an increasingly long line of communications and supply, suffering from disease, and rapidly losing their momentum as the initial string of easy victories evaporated into a seemingly unbreakable stalemate.

The Greeks and Serbs had a similar experience. They defeated the Turkish advance, counterattacked, and then pursued as the Ottomans scattered. On 23 October, the Greeks were victorious at Ellasson. The

Turks planned to fall back on their main base at Manastir. In this, they were aided by Bulgarian desires for certain territorial objectives in the theater that interfered with sound military operations. After Ellasson, the Bulgarians sent a League division to take Salonika, a main Greek prize. Prince Constantine of Greece then diverted his advance to hold off the Bulgarians!

The Turks took advantage of the situation to rally and prepare a defensive position at Venije Vardar. A Greek attack on 2-3 November failed to penetrate Turkish lines. Constantine, however, took advantage of his superior staff, logistics, and artillery support and over the next two days prepared for a breakthrough. The superior Greek artillery and small unit tactics won out in the 5 November assault, and the Turks were again forced to retreat in great disorder, abandoning much of their transport and heavy equipment. Isolated Turkish detachments sought out the safety of the fortress of Janina.

The Serbs to the north had followed the pattern of the other Allies, mobilizing behind their frontier while screening forces protected the main body. The Turks, believing this revealed a weakness they could exploit, attacked the covering forces along the frontier. The Serbs then counterattacked and defeated the Turkish forces on 24 October at Kumanovo. The mountainous terrain permitted the Turks to build up a line at the Babuna Pass. The Serbs did not want to assault this position frontally; they were rightly concerned about taking excessive losses. Instead, they threatened to envelop the line, forcing the Turkish forces to retreat to their base at Manastir. Turkish reinforcements attempted to prepare the next battlefield by exploiting the terrain and erecting obstacles, but they failed to dig in adequately. This was a recurring fault in most major engagements of the campaign, due to poorly trained Ottoman troops. As a result, the well-trained Serb artillery dominated the battlefield.

Machine guns might have become even more important than the artillery to the outcome, but their relative scarcity in most locations and the fact that neither side used them aggressively kept them from dominating the battlefield as they soon would in World War One.

Operationally, the Turks suffered from two vital disadvantages. The separate Greek and Serbian offensives were sufficiently coordinated in time to offer a credible threat of enveloping and pocketing the Ottoman border defenses. Now that the Greeks had broken through and were advancing, the danger of complete defeat loomed, regardless of the success or failure of the Serbian attack in the north. Secondly, lines of communication back to the Ottoman heartland, already strained to the point of collapse, had now been cut by the Bulgarian advance in the eastern part of the theater. This effectively doomed any long-term defense of Macedonia. The battle on 5 November was a gallant affair of attack and counterattack, but the in-

herent flaws of the Turkish defenses inevitably broke the troops' will to resist. Approximately half of the Turkish troops were killed, wounded or captured, while the rest fled to safety in the fortress of Janina.

**Operationally,
the Turks suffered
from two vital
disadvantages.**

The Serbs and Greeks were quick to follow up on their advantage, and on 9 November Salonika fell to the Greeks. Again, this military success caused political friction between the Allies, as the Greeks narrowly beat out a Bulgarian force sent to occupy the city. Isolated skirmishes began between small Greek and Bulgarian detachments, but the respective League high commands ignored the larger im-

plications of these incidents. The immediate problem was to finish off Ottoman resistance.

While beaten in the field, the Ottomans showed themselves capable of stoutly defending their fortifications at Janina and Scutari. However, the Sublime Porte still faced the possible loss of Constantinople to the Bulgarians due to the low morale of battered and bloodied Ottoman troops. The Young Turks, mindful of the dangers of internal rebellion and still more wary of Great Power intervention to save them (with strings attached), asked the League allies for an armistice. For their part, the allies saw an opportunity to end the fighting at the point of maximum territorial advantage, at least for the time being. The shooting officially ended on 3 December 1912. The "battlefield" then moved to the seemingly more peaceful surroundings of the London Peace Conference. [Part 2 next issue.]



Serbian soldiers quickly proved their combat capabilities and helped Serbia emerge as the big winner in 1912. © Osprey Publishing



Right: LTC Richard A. Lechowich, USA (ret), currently works at United States Central Command in the Operations Division. He taught International History and Middle Eastern History at the United States Military Academy at West Point. A long-time wargamer, he wrote for *Command Magazine* and *Strategy & Tactics*. This article originally appeared in *S&T* and is reprinted here in two parts with the permission of the publisher, Decision Games.



Left: This December 1912 political cartoon was titled "Christmas in the Balkans" with a retreating Santa saying "Here's where I beat it. Somebody else can have the job of dividing presents among that bunch!" The Balkan League allies and great powers are shown rushing for the territory of the Ottoman Empire.



The original soldier paintings on page 8 by Stephen Walsh are available for private sale. Contact www.stephenwalshillustrations.co.uk for details.

Read more about the Balkan Wars:



Zeppelin Scourge

The First Aerial Battle of Britain

By Steve Suddaby with historical images from the collection of A. Langley and aircraft illustration by R. N. Pearson

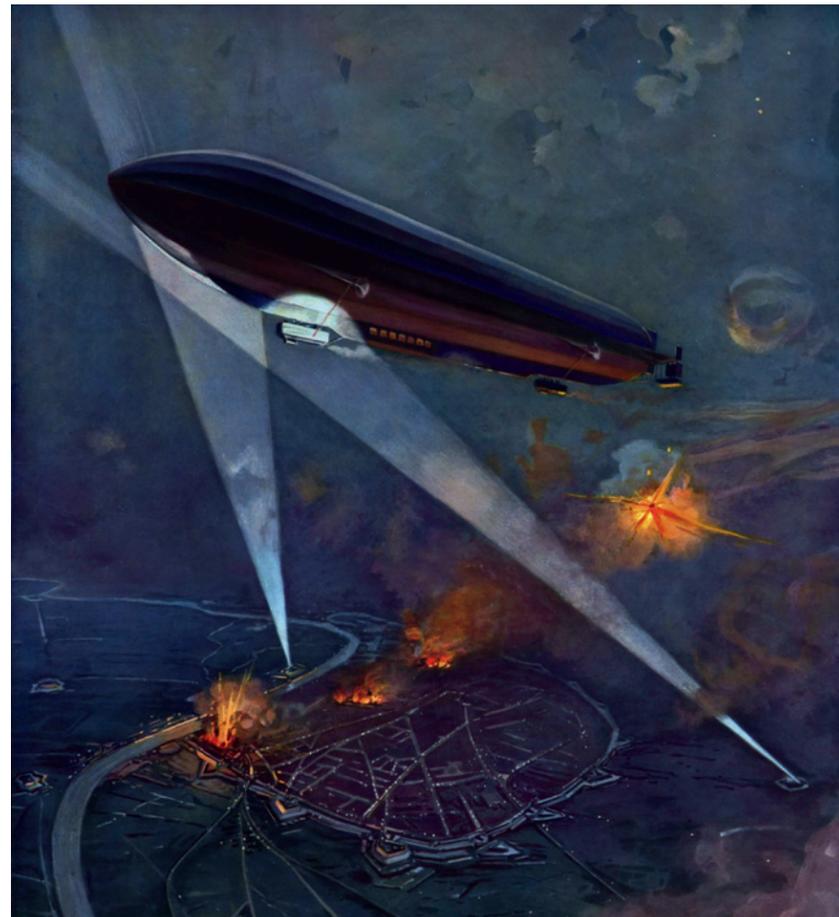
German dirigibles flew raids over Great Britain with impunity for nearly two years. Striking terror among the population, the world's first strategic bombing campaign resulted in 557 people killed and 1,358 wounded, most of them civilians.

German airships raided Britain on 54 nights during the course of World War One. Most of these airships were Zeppelins, created by Count Ferdinand von Zeppelin, and most of them were part of Germany's Navy. They ranged over the eastern half of Britain, dropping high explosive and incendiary bombs as far north as Edinburgh, Scotland.

Although British air defenses eventually defeated the Zeppelins, the raiders operated with near-impunity for almost two years. Fortunately for Britain, Germany never had enough airships at any one time to seriously hurt the British war effort. Despite our current image of vulnerable airships like the Hindenburg exploding in flames, Zeppelins were actually difficult to shoot down.

...British air defenses eventually defeated the Zeppelins...

Their hydrogen lifting gas was stored in multiple cells suspended inside the duralumin (an aluminum alloy) structure of the airship. Hydrogen is only flammable when mixed with oxygen. To ignite it, there has to be a large enough hole in the cell to allow it to mix with the air, and then there has to be a spark or fire. The difficulty of this



is compounded by the fact that the pressure inside the cell was often less than that of the surrounding atmosphere, so the mixing of the gases did not occur easily. While Zeppelins were vulnerable to anti-aircraft artillery shells, a fighter plane firing regular machine gun bullets or even tracers alone could not bring them down.

The first raid on England took place the night of 19/20 January 1915, when naval Zeppelins L3 and L4 attacked Yarmouth. Throughout 1915 and even much of 1916, there were very few anti-aircraft artillery guns and searchlights available to protect England's cities. These were desperately needed on the Western Front – protecting all of

Britain's cities in the eastern half of the country was simply not possible. The Germans reinforced their bombing effort by introducing a larger R-class airship in 1916 called "Super Zeppelins" by the British [see illustration in the game Zeppelin Raider accompanying this issue]. The first raid by an R-class Zeppelin was on 28/29 July 1916.

The Royal Flying Corps (RFC) gradually built up a defensive fighter force, but these were not effective until September 1916. By that time, the RFC had developed explosive and incendiary bullets, which in combination created large enough holes in the gas cells to get them to ignite. Even then, Lt. William Leefe Robinson, who brought down the airship SL11 on 2/3 September 1916, had to concentrate his fire in one location to get it to burn. (This particular airship was one of the few non-Zeppelin craft; it was built by the Schutte-Lanz company.) It is still possible to see the monument where the airship fell at Cuffley, just north of London.

Three more airships were shot

down by fighters within the next 30 days. Although the Zeppelins continued trying to bomb Britain until August 1918, the now-vulnerable airships were more dangerous to their own crews than to British civilians after September 1916.

The Zeppelin raids did manage to tie down some resources needed badly on the Western Front. By the end of 1916, these included 11 fighter squadrons, 200 anti-aircraft guns, and more than 17,000 men. The German airships also had minor effects on munitions production because some work stopped in the eastern half of the country during the roughly 48 nights that radio intercepts and other intelligence warned Britain that Zeppelins were on their way. No historian has argued, however, that this was a serious impediment to Britain's war effort.

The initial intention of the Zeppelin raids was to strike ports, munitions factories, communications, and transportation facilities. Because they had difficulty navigating over blacked-out England and

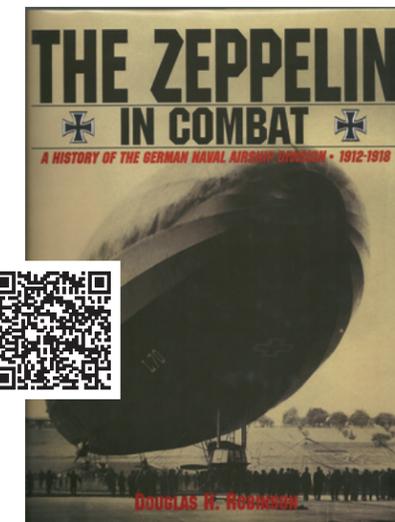
could not fly low enough to aim precisely because of the threat of anti-aircraft fire, their efforts quickly became de facto terror bombing. They could hit no target smaller than a city or town (if they could find it) – a situation that bedeviled the hope of "precision bombing" for decades to come.

...Zeppelin raids ... became de facto terror bombing.

The terror and even rioting that resulted from these raids and the airplane raids in 1917 and 1918 influenced the British public and government regarding air raids into the 1920s and 1930s. The fear of even worse air raids in 1938, when Britain's Royal Air Force was not well prepared to defend the country, may have even been a factor in Prime Minister Chamberlain's appeasement of Hitler.



Read more about Zeppelins and the bombing of Britain in World War One.



Steve Suddaby is a retired CIA analyst and past president of the World War One Historical Association. He has interviewed Zeppelin raid survivors and visited bombing and airship crash sites in England. A two-time winner of the Thornton D. Hooper Award for Excellence in Aviation History, he and his father Allen wrote *French Strategic and Tactical Bombing Forces of World War I* (Scarecrow Press, 2007).

French Plan XVII

Part 1: "Is it Positive Thinking or Wishful Thinking?"

Text and maps by David Schroeder

The following article appeared as Chapter 2 in Schroeder's *Business in the Trenches: Win using the lessons of War*. The book compared historical situations to real business conditions — in this case using World War One for its source material. Schroeder's book is intended for a non-academic audience, including people who may know little or nothing about the Great War. It will be presented, slightly edited, in two parts in WWOI.

INTRODUCTION

The principal enemy of the German Army in 1914 was the French. The French Army had aggressive plans for operations when war broke out. These French plans failed miserably. They found themselves reacting to German moves. They were able to capitalize on German mistakes and regain the initiative due to the actions of a few French generals. As the story of the French struggle against the German invasion unfolds, there are good examples of the following issues:

- Dangerous revenge-based strategies
- Inflexible business philosophies
- Overly ambitious strategies
- Failure to learn from others' experience
- The need for quick and effective change
- Risk taking
- The importance of confidence in leadership
- Management changes during a crisis
- Identifying necessary changes

HISTORICAL CASE AND BUSINESS ANALOGIES

The Pre-War Situation

France lost a war to Germany in the 1870s. France lost two provinces along the Rhine, Alsace and Lorraine, and as a result suffered national humiliation. Prior to their defeat, most people considered the French the world's best army, the keeper of Napoleon's tradition. The Germans, up until then, were just a group of squabbling provinces. They united under Prussian leadership and beat the French decisively. France wanted revenge: it wanted its lost provinces back, and it wanted to regain its lost honor.



Above: French publications in 1914 like *La Dépêche* (The Dispatch) showed French troops in colorful uniforms besting the Germans, but the reality was very different.

ANALOGY 1: THE REVENGE STRATEGY

France based her military strategy after the 1870 defeat on one principle, revenge. Businesses can fall into this trap, too. A company can totally fixate on beating a competitor in a specific product line or in regaining some lost market. Once a company becomes obsessed with this type of goal, it is blind to other opportunities. Too many of the company's resources are committed to gaining some kind of revenge, accompanied by a poor profit outlook. Such approaches usually ruin the revenge-seeking firm.

In the years immediately following its loss to Germany, the French Army adopted a defensive strategy. The united Germany was stronger than France was. In any future war, France saw it would face the might of the entire German Army.

The situation for France changed suddenly. In one of the greatest diplomatic blunders of all time, the German ruler, Kaiser Wilhelm II, failed to renew the treaty of cooperation Germany had with Russia. Russia went looking for a new ally and found a very willing and ea-

ger one in France. The French could barely believe their luck. Now they had a powerful ally on the other side of Germany. France and Russia could now simultaneously threaten Germany from opposite directions. [Editor's note: This was the Military Convention of 1892, not made public until 1918.]

PLAN XVII

The Russian alliance greatly improved the French Army's position. Now the Germans would have

to deal with a possible war on two fronts. For the French, this meant they could start any war against Germany by attacking. The French planned attacks to regain the lost provinces – an offensive that would reestablish the honor and pride France and its army felt they had lost.

The French military philosophy became one of "Attack, attack, attack, and when in doubt, attack." The French felt the spirit and courage of their soldiers would overcome any and all obstacles. They felt the morale of the individual soldier, called *élan*, was the deciding factor in combat.

ANALOGY 2: SINGLE MINDED STRATEGY

The French adopted a one-track strategy based on a single tactic: attack. This was the only thing their army was going to do. This was the basis of all their maneuvers. This was the basis of all their planning. Businesses, too, can go down the road of having a single strategy and a single tactic. And when they do, they eliminate their ability to improvise, to find other often uncharted paths to success. This is not because they have opted to do only one thing, but because they have opted to do only one thing to the exclusion of doing anything else.

The French military's faith in the *élan* of their men was a prerequisite for promotion in the army. Those who did not believe in the attack were defeatist and labeled unfit for command. Only those with unshakable faith in the irresistible force of attacking Frenchmen reached

the highest positions. Those with different views were passed over, or otherwise forced out of the army. The result was an entire leadership structure, from junior officers to senior generals, who were adherents to the accepted doctrine of "attack in all situations."

ANALOGY 3: COMPLIANT THOUGHT

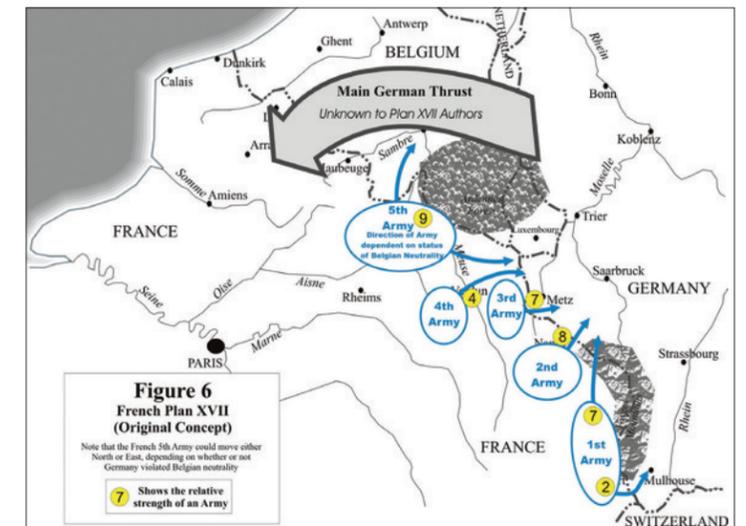
The result of the French Army's philosophy was that it could really only do one thing. They systematically removed the ability to deal with changing situations and to come up with new and innovative solutions. This would prove very damaging when the accepted doctrine was discredited. This can happen in the business world. If an organization takes steps, actively or passively, to stop promoting people because they do not totally accept the prevailing corporate philosophy, it will find itself blind when that philosophy becomes invalid.

The French adopted Plan XVII prior to the outbreak of war in 1914. Plan XVII was based on the single principle of attack. The primary goal was to recapture Alsace and Lorraine by quick offensive action.

The commander of the French Army at the start of the war was General [later Marshal] Joseph Joffre. He firmly believed that attacking into Germany was the right course of action, and he disapproved of anyone below him not having this attitude. Even worse in his sight were commanders who would not attack aggressively. He had approved Plan XVII, and he believed its success would be his crowning achievement. He would of course be hailed as the savior of France when it worked.

In August 1914 France mobilized according to their Plan XVII. By doing so, it was as if they arranged to have all of their forces at the front door, while the Germans were poised to enter through the back. While the French moved against the Germans in the south, the Germans would be marching into France from the north. It is almost impos-

sible to conceive of a worse initial plan for the French. This is the situation their arrogance and their misguided faith in the "spirit of the attack" placed them in.



French Plan XVII — Original Concept Map © David Schroeder and SPW LLC

THE WAR BEGINS

The French mobilized five separate armies at the start of the war. The preponderance of their strength was at the southern end of the line. The French First Army was southernmost and was to attack into Alsace. This would mean attacking across the most rugged terrain between Switzerland and the English Channel, the steep and densely forested Vosges Mountains. Just to the north of the First Army, the French Second and Third Armies were to attack into Lorraine. The Fourth Army was to act as a reserve, to back up any success, or to help extend the line if needed. The French Fifth Army would move to screen the border with Belgium and attack any German forces that might try to move into France from that direction.

While German forces started into Belgium, the French prepared to retake Alsace and Lorraine. The French discounted Belgian reports of massive numbers of invading German troops. They thought the Belgians were a bunch of incompetents. They saw the

Belgians as inferior troops with inexperienced leaders. The French thought the Belgians were exaggerating things in a panicked state of mind. The French also discounted the Belgian reports because they showed the Germans doing things contrary to what the French wanted them to.

In fact, for some time prior to the start of the war, the French had received intelligence about German war plans. There were articles in German military periodicals alluding to their plans. There was even information provided by spies inside the German High Command. The problem was that if these reports about German plans were true, the French Army would have to adopt an initially defensive stance. The leadership of the French Army just refused to do this. The desire to attack was strongly entrenched in their organizational culture. They wanted to believe their plans for attacking across the German border would be successful, so much so that they discounted all information that could force them to abandon their Plan XVII attacks.

ANALOGY 4: FAILURE TO ADMIT FAILURE

Why did they do this? For the same reason modern leaders cannot be persuaded their plans are unrealistic. They made those plans. If their plans were misguided, they would have to admit that they were wrong, made a mistake, or worse. Few and far between are leaders that can swallow their pride and change a plan they have already committed to. Most have this difficulty even when they receive credible information that their plan is flawed.

And so, as the German right wing started to pour into Belgium, the French launched the first of their attacks. In the very south, the French retook the city of Mulhouse in Alsace. German forces in the area quickly moved around them on three sides. In danger of being surrounded, the French retreated.

The French continued to execute Plan XVII. Millions of French soldiers, clad in dark blue wool coats and bright, crimson red pants, marched forward. With bayonets fixed at the end of their rifles, they moved across the open fields of the countryside towards an unseen foe. The French attacks quickly developed into disasters. The attacks produced the same results: huge numbers of dead and wounded. The French infantry marched towards German positions defended by machine guns and supported by quick-firing artillery. They were massacred. The Germans then attacked the dazed and demoralized survivors, throwing those still alive back across the border.

TACTICAL DEFICIENCIES

World War I is full of stories of bad ideas and obsolete practices. Why did the French march their troops into

machine guns? Did they just not know any better?

It is true that the French Army did not have experience attacking anybody with machine guns prior to World War I, but plenty of other countries had. Machine guns had already been used to deadly effect. This was the case in the war between Russia and Japan a decade earlier. Machine guns also played a prominent role in the Balkan wars. The French Army had reports from observers in each of these conflicts. They even had these weapons themselves.

The reason they did not take the reports on the effects of machine guns into account is very basic. They just did not believe they would suffer the same effects from these new weapons. They stubbornly clung to the belief that their situation was different. What happened elsewhere was not going to happen to them. After all, those other situations involved inferior troops from backward countries—countries without inspired leadership; armies that did not possess a truly great fighting spirit. Such troops would have problems against new weapons they thought, but not the French Army.

ANALOGY 5: FAILURE TO LEARN FROM OTHERS

Unfortunately, this is a very common story. Leaders are either unable or unwilling to see the analogy between what happened somewhere else and what is about to happen to them. The resounding cry of “Our situation is different” is all too frequent. People give many reasons for saying this. They think because the situations are not exactly the same that the outcome will not be similar. They don’t want the outcome to be similar if the outcome is potentially disastrous.

The next issue is why the French were wearing bright red pants. Remember that the French military leadership believed they would be successful because of the fighting spirit, *élan*, their soldiers had. They believed this fighting spirit partially came from the look of the uniforms the soldiers wore. The leadership felt that changing the uniform would hurt the morale of their fighting men and would thereby reduce the chance of successful attacks.

There were plenty of examples showing that colorful uniforms were a bad idea. The British Army had traded in their red uniforms. Instead of the red that they had worn for centuries, they now wore a new color developed in India, khaki. It blended into scenery and made for much less of a target. The Germans now wore a new color specifically designed to be unnoticeable in the countryside of Europe. They called it Feldgrau, German for “field grey.” Even the Austrians abandoned their traditional white uniforms for muted blues and grays.

To the French, the red pants were part of their heritage and tradition. Others could throw those things aside, but they could not. It was a part of their organizational culture they were not willing to discard. If they had, it may have called other parts of their military philosophy into question. They were not going to allow that to happen.

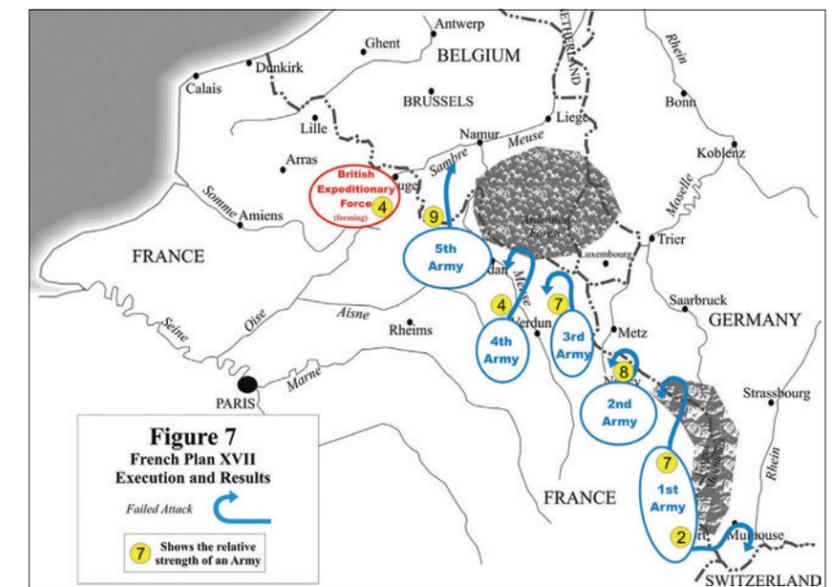
LAUNCHING THE ATTACKS

General Joffre unleashed Plan XVII at the start of the war. The attacks by the French First and Second Armies were unsuccessful. Attacking units from these armies took huge losses. In some cases, the units were so badly shot up they practically ceased to exist as fighting formations. This was not supposed to happen. But Joffre didn’t look into reasons why the attacks failed. To him the reasons were simple enough. He thought the leaders of the attacks were either incompetent or did not attack with enough vigor. He believed the soldiers did not want victory enough to achieve it. That maybe the Germans were stronger than anticipated was a minor consideration. Joffre believed

his troops and officers should overcome any obstacles placed in their way.

Since the French First and Second Armies had shown that they could not achieve results, Joffre now looked to the soldiers of the French Third and Fourth Armies. Joffre felt these two armies would have an easier time because he did not expect them to be opposed by that many Germans. He thought that since the Germans in the south were stronger than expected, and since some Germans were in Belgium to the north, they must therefore be weak in the center. So Joffre ordered his Third and Fourth Armies to attack the German center. [See map below]

Once again, long lines of French infantry rose up to march toward the Germans. Officers pointing the way to the enemy with their swords led the way. Their faith in *élan* was not yet shaken by bloody experience. These new attacks went just as badly as those of the First and Second Armies did. There were no gains. There were no breakthroughs opening the way into Germany. There were just more French dead and wounded lying in the fields and forests, and more divisions of the French Army ceased to exist as effective fighting units. Once again, Joffre placed the blame on those involved in the attacks. There was no questioning the viability of Plan XVII. There was no questioning the basis of French tactics or strategy.



French Plan XVII—Execution and Results. Map © David Schroeder and SPW LLC

ANALOGY 6: NEED FOR RAPID CHANGE

All of the Plan XVII attacks happened over the relatively short period of less than two weeks. This is how long it took to expend a major portion of the French Army's available resources. In war, outcomes are decided rather quickly. It was once a bit different in the business world. In the business environment of the past, a company might have a couple of years to look at and analyze their efforts. It had plenty of time to make incremental changes to their procedures and practices. This is no longer the case. Business organizations are now in an environment that closely resembles warfare. In this kind of environment, the failure to quickly exploit opportunities, or deal immediately with a crisis, can have serious and long-term negative consequences.

CRISIS TO THE NORTH

At the northern end of the French line was the only French Army that had not yet attacked. This was the Fifth Army. Joffre ordered this army to move into southern Belgium while the other French armies attacked. This was done to protect the northern flank of the French from the Germans now in Belgium. Yet this movement of the Fifth Army put it right in the middle of the German right wing's line of advance. This French Army was to launch attacks against any Germans it encountered, just like all the other French armies.

General Charles Lanrezac commanded the French Fifth Army. He had some real concerns about his orders. He put more weight and validity on Belgian reports about the German right wing than others in France did. As he looked at the situation, he began to believe that the bulk of the German armies were indeed marching through Belgium. Lanrezac also real-

ized that once he moved forward as ordered by Joffre, his army would be directly in the path of overwhelming German forces.

Lanrezac was very vocal in protesting his orders to move forward and launch attacks. He told Joffre repeatedly that it was inviting disaster. Lanrezac even quoted to Joffre reports from Joffre's own intelligence section about German strength in the area. He also pointed out that Germans moving around him to the north and west could outflank his positions.

There were no French forces of any consequence north of Lanrezac's. The British Expeditionary Force (BEF) was supposed to show up there, but it was a small force, and Lanrezac's staff had yet to hear from them. Joffre did not believe the reports of German strength in Belgium. He believed they had accounted for all of the German front line troops and felt there could be few left to operate in Belgium.

ANALOGY 7: ACCEPTED ASSUMPTIONS

The way the French military leadership thought about reserve troops is an example of a great trap in management thinking. You cannot presume that just because you see things a certain way that everyone else sees things the same way. You must think about what your opponent could do with the resources available to it, not what you would do with those assets. This myopic mindset will only result in the competition surprising you with what it does next.

General Joffre released most of the Fifth Army from its original orders due to pressure from Lanrezac and others who held similar views. Joffre did respect Lanrezac's intellect and was prepared to grant him some latitude. He allowed Lanrezac to move farther to the north, but he was still to attack according to the spirit of Plan XVII. Joffre was more than a bit perturbed at Lanrezac for his change of heart. Lanrezac was expected to carry the offensive spirit as a senior commander. Joffre now saw him as an annoyance, a "non-team player" in today's terms.

The Germans showed up in front of the French Fifth Army almost twice as strong as Joffre expected. Lanrezac found his army under attack by two strong German armies, each of which was more powerful than his own. Yet he was still under orders to attack. Out on the

front line, individual French units did move to attack when they made contact with the Germans, but Lanrezac did not attack with his army as a whole. He saw this course of action as too dangerous. At about this time he also learned that the French Fourth Army, to his immediate south, was pulling back after its own failed attacks. On his other flank, the British had arrived, but were also under heavy pressure, by yet another strong German Army. [See page 17]

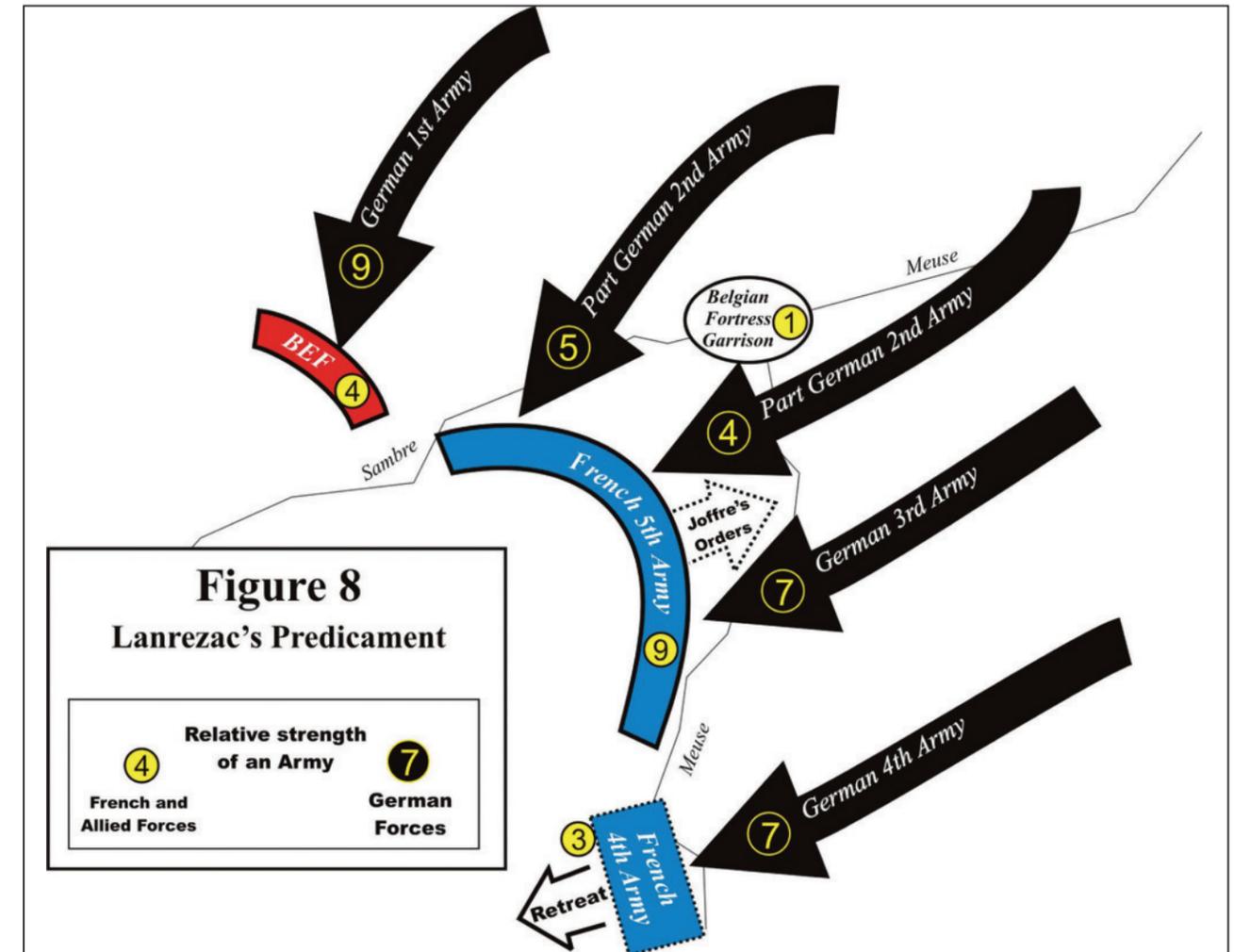
Lanrezac saw that his army was the only one astride the path of the main German effort. He also realized that if he attacked, or even stayed put, the Germans would probably surround his forces. On his own initiative, he ordered his army to retreat. He knew that Joffre would brand him a coward for doing so. Lanrezac knew he would be blamed for failing to attack and undermining Joffre's plans.

All of the French armies were retreating as Lanrezac pulled away from the oncoming Germans. The French First and Second Armies retreated to the line of fortresses in their rear. Here they stopped and held off repeated attacks by the Germans. The other French armies

retreated to a line between the French fortresses and Paris. [Next issue concludes this two-part series with lessons from the "Miracle on the Marne."]



You can read more about David Schroeder's book *Business in the Trenches* at businessinthetrenches.com and buy it on Amazon. He has served in the Army on active duty, and is a Colonel in the Army Reserves. Schroeder owns a management consulting business and designs and publishes military simulations, including a series on World War One that can be viewed here: www.spwgame.com



Lanrezac's Predicament Map © David Schroeder and SPW LLC

Myths and Mysteries of the Great War in the Air, Part 1

Excepted from an article by O'Brien Browne with aircraft illustrations by R. N. Pearson

This series' aim is to dispel some of the most egregious myths about the Great War in the air. It reflects current knowledge and is by no means "definitive" – there is no monopoly on historical "truth."

From the time of the first sensationalist newspaper reports about aerial fighting in World War I, the air war has been clouded in mystery, romance and legend. While for the dream merchants in Hollywood as well as the producers of pulp fiction this was – and is to this day – a commercial godsend, for historians this has meant sifting through an entangling nightmare where glossy imagery, propaganda and vivid imaginations have obscured historical reality.

The air war was the 20th century's last and only chance for a soldier to be heroic in the medieval sense of the word, or at least be represented as such. But heroes' deeds, as every historian knows, often don't stand up to the facts.

After the war, the myths were added to by journalists and enthusiasts who did not have the resources or energy to double-check facts, and often by the ex-fliers themselves whose memories had become blurred with the passage of time. These tales rapidly developed into reported stories, then made their way into history books and were cited and repeated by later writers and historians, thus accruing the weightiness of "fact."

PERSONALITIES

Georges Guynemer Disappeared into the Clouds. This type of myth was created during the war by Allied propagandists to explain the

loss of popular air heroes. Guynemer, said a French general at the ace's memorial service, "had disappeared in empyrean glory through a miraculous assumption." In many later books, the impression is given that the French pilot was not shot down, but merely "vanished" in some romantic and supernatural manner. In reality, Capitaine (Captain) Guynemer was shot down on 10 September 1917 by Leutnant (2nd Lieutenant) Wissemann of Jasta 3 near Poelkapelle and his body was examined by a German doctor. He had been shot through the head. Guynemer was credited with 53 air-to-air victories at the time of his death.

French Ace of Aces René Fonck Killed Lt. Wissemann, the Airman Who Shot Down Capte. Guynemer. This exciting tale of revenge has been retold time and again in ac-

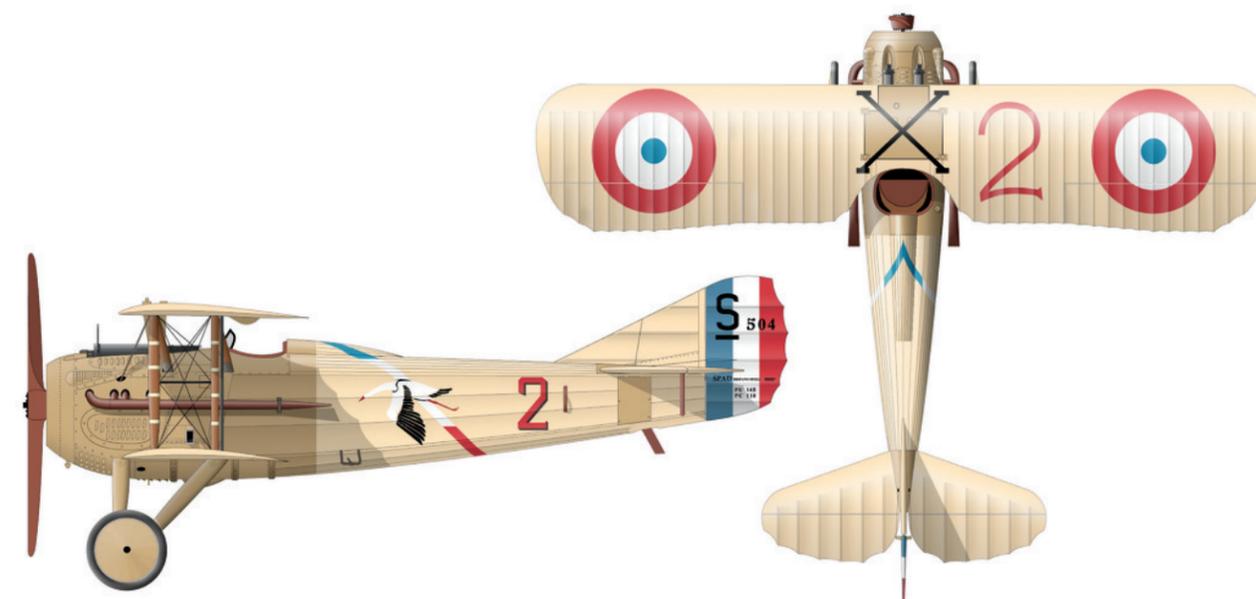


counts of Guynemer's death. It is, unfortunately, only a tale because Wissemann's DFW C.V was shot down on 28 September 1917 by Captain Geoffrey Hilton Bowman and Lt. T. C. Hoidge of 56 Squadron RFC, a little over two weeks after the fall of the French ace.

GERMANS

Germans Were First to Use Airplanes in War. Actually, it is generally conceded that the first use of aircraft in warfare was by Italy in its 1911-12 war against the Ottoman Empire over Tripoli. The 11 Italian pilots, flying French Blériots, Nieuports, Farmans and German Taubes, "performed the first tactical reconnaissance, cartographical and artillery observation, day and night bombardment, and propaganda leaflet dropping missions" the world had ever seen.

O'Brien Browne is a contributing editor at *MHQ: the Quarterly Journal of Military History*. His work has appeared in the *Christian Science Monitor*, *Letters to the Economist*, *Aviation History*, *Military History* and elsewhere. He blogs for the *Huffington Post*, and is a four-time recipient of the Thornton D. Hooper Award for excellence in aviation history.



Top:
Georges Guynemer's SPAD S.XIII drawings © 2009 R. N. Pearson. Almost 3,000 aircraft profiles are sold on a CD by Bob Pearson bpearson@kaien.net – and can be previewed at www.cbrnp.com/RNP/CDv2/index.htm

Left:
Photo of Guynemer's SPAD VII at the Musée de l'Air et l'Espace by Steven C. Suddaby.

MACHINES

The Hated "Quirk": The BE2c. Condemned as "bloody awful" by the likes of ace Albert Ball and other Royal Flying Corps airmen, and much-maligned by WWI aviation historians down through the years, the BE2c was, for the time for which it was designed, considered a stable, solid observation aircraft. [Editor's note: It is credited with the first Zeppelin kill over England – see Steve Suddaby's article in this issue.] Its evil reputation as unmaneuverable and virtually indefensible is due more to RFC/RAF leader General Hugh Trenchard's stubborn policy of unceasing offensive, which demanded of the BE2c capabilities for which it was not designed. Another finger of blame can

be pointed at the British airplane industry for slowness in producing a more advanced observation craft to replace the soon-obsolete BE2c. It was virtual murder to send crews up in these machines against sleek and maneuverable German Albatros fighters (although as historian J. M. Bruce points out, the BE2c held its own against Fokker Eindeckers.) Nevertheless, Trenchard continued to rely on the BE2c well into 1917, forcing the craft to perform "well beyond its effective life."

Zeppelinmania. In the years preceding WWI as well as during the war years, British newspapers like the *Daily Telegraph* and others sold many issues by exploiting the "Zeppelin Menace" theme; the Ger-

mans themselves believed their airships to be powerful weapons that would enable them to strike deep into the hearts of enemy lands. The reality, as usual, is much different. Expensive to build, huge and lumbering, vulnerable to attack from the ground or the air, not particularly accurate bombers and highly dependent on weather conditions, Zeppelin performance never came close to that of more advanced bomber aircraft. At most, the massive airships found some success as propaganda and terror weapons in the militarily ineffective night raids over London which took place until the later stages of the war. [See Steve Suddaby's related article in this issue.]



1 HIT 1 VP REMOVE AT END OF TURN	1 HIT 1 VP REMOVE AT END OF TURN	1 HIT 1 VP REMOVE AT END OF TURN
1 HIT 1 VP REMOVE AT END OF TURN	1 HIT 1 VP REMOVE AT END OF TURN	2 HITS 2 VP REMOVE AT END OF TURN
2 HITS 2 VP REMOVE AT END OF TURN	2 HITS 2 VP REMOVE AT END OF TURN	3 HITS 3 VP REMOVE AT END OF TURN
3 HITS 3 VP REMOVE AT END OF TURN	4 HITS 4 VP REMOVE AT END OF TURN	MG ELIM REMOVE 1 GERMAN MARKER STAY IN ZONE
CLEAR JAM CANCELS GUN JAM REMOVE AT END OF TURN	SEARCH LIGHT CANCELS ALL DARK NIGHT MARKERS REMOVE AT END OF TURN	ACE PILOT CANCELS RAPID ASCENT REMOVE AT END OF TURN
NO EFFECT REMOVE IMMEDIATELY	NO EFFECT REMOVE IMMEDIATELY	NO EFFECT REMOVE IMMEDIATELY
MISS CANCELS ANY HIT REMOVE IMMEDIATELY	MISS CANCELS ANY HIT REMOVE IMMEDIATELY	MISS CANCELS ANY HIT REMOVE IMMEDIATELY
RETURN FIRE CANCELS MG ELIM REMOVE AT END OF TURN	ELITE CREW CANCELS ANY BRITISH MARKER REMOVE IMMEDIATELY	GUN JAM CANCELS ANY HIT ENDS THE TURN
GUN JAM CANCELS ANY HIT ENDS THE TURN	DARK NIGHT CANCELS ANY BRITISH MARKER REMOVE IMMEDIATELY	DARK NIGHT CANCELS ANY BRITISH MARKER REMOVE IMMEDIATELY
DARK NIGHT CANCELS ANY BRITISH MARKER REMOVE IMMEDIATELY	DARK NIGHT CANCELS ANY BRITISH MARKER REMOVE IMMEDIATELY	INTO CLOUDS CANCELS ANY BRITISH MARKER REMOVE IMMEDIATELY
INTO CLOUDS CANCELS ANY BRITISH MARKER REMOVE IMMEDIATELY	RAPID ASCENT GAME ENDS IMMEDIATELY	RAPID ASCENT GAME ENDS IMMEDIATELY

11) Take all of the German NO EFFECT and MISS markers and British HIT markers and mix them up in a cup. Randomly choose three markers without looking at them. This represents the Zeppelin bombing effects. Randomly choose three markers without looking at them until all three markers are chosen. For example, if a German MISS marker and a British 2 HIT and 1 HIT markers are chosen, you move the German marker on the Victory Point track to the "3" space.

12) The turn is now over. Begin the next turn with steps 4-11 above.

MARKER GAME EFFECTS: Under the Zeppelin on the game board, British and German markers' game effects are explained. Note that some markers cancel other markers. Only markers with "Stay in Zone" remain on the game board in a particular zone from turn to turn. All other markers are removed from the game board either immediately after they are revealed and after their effects are applied, or at the end of every turn (step 10).

GAME ENDS immediately as soon as the British player reaches the "6" space on his VP track. Otherwise, play steps 1-10 above for three turns. At the end of the game, compare the VP for each side – the side with the most points wins the game.

HOW TO PLAY THE 2-PLAYER GAME

There is now both a British pilot player and a Zeppelin crew player.

There are only four differences with game play steps 1-12 outlined above:

- Both players may choose the markers they want to place in each of the three defensive zones. The markers are initially placed insignia side up on the board, and then each player chooses which marker to reveal. No more than one of any marker may be placed in the same area (for example, only one DARK NIGHT or one GUN JAM or one 3 HITS), and the British player may not place a 3 HIT and a 4 HIT marker in the same zone.
- Instead of the British player choosing the German markers, the German player may choose any one German marker with the game effect he wants to use for this turn (like the British player in step 3). The German player may look at and then choose the other German markers and places them on the game board with one less marker per zone since he is holding that extra marker.
- The German player chooses the marker in a zone that he wants to turn over after the British player turns over a marker to attack that defensive zone.
- For his bombing effects, the German player randomly chooses three markers in the cup without looking at them until all three markers are chosen.

All other steps outlined above for the solitaire game are the same for the 2-player game.

EXAMPLES OF PLAY

See examples at games/zeppelinraider/historyarray.org

A World War One solitaire and 2-player game



Zeppelin RAIDER

Game Design by Dana Lombardy
 Game Development & Graphic Design by Mark Schumann
 Historical Research by Steven C. Suddaby
 Historical images from the private collection of A. Langley
<http://1agames.com/lombardy-studios/>

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TERROR from the Skies!

Zeppelin RAIDER

A World War One solitaire and 2-player game

Fly against...or as...one of the MONSTERS OF THE AIR!

SCENARIO



DANA LOMBARDY

RESEARCH



STEVEN C. SUDDABY

CAMERAMAN

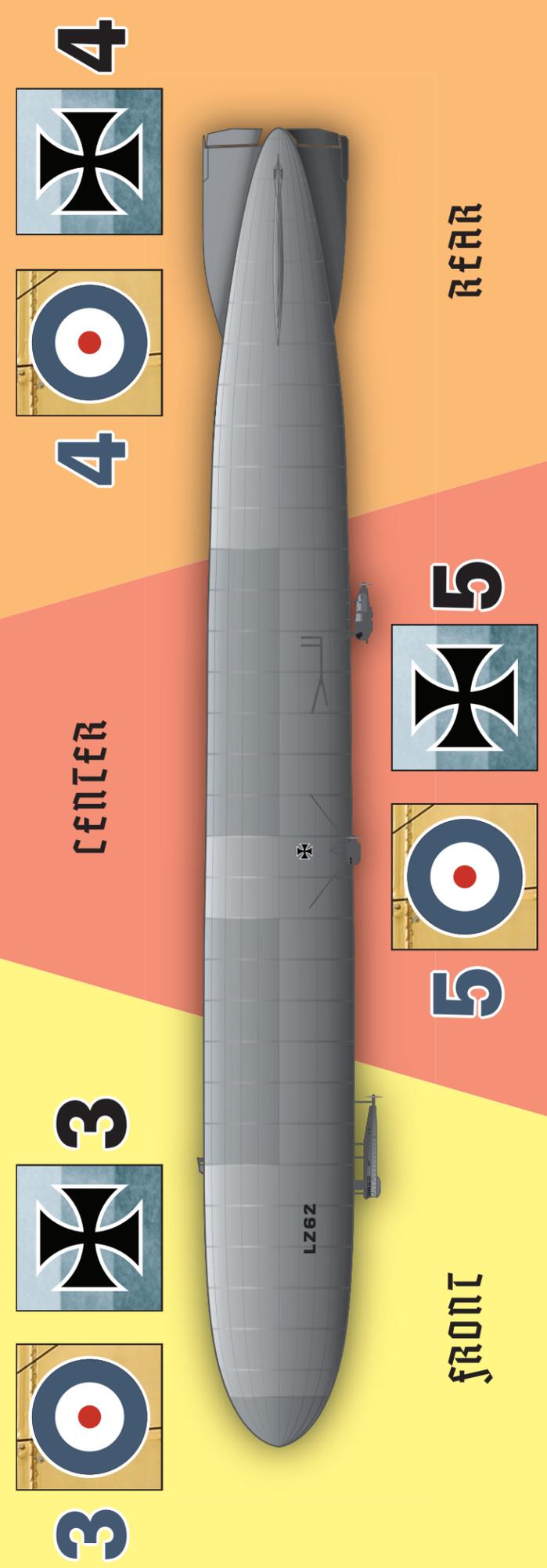


MARK SCHUMANN

WUNDER-KATZE



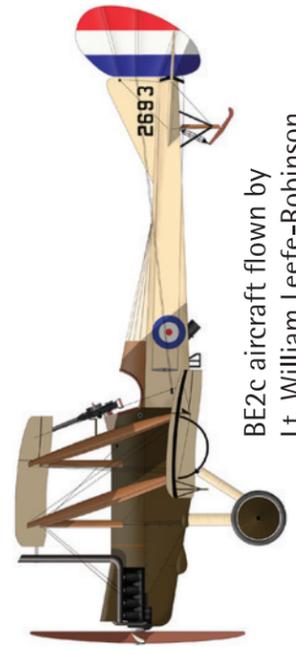
MOTÖRHEAD



BRITISH VICTORY POINTS



GERMAN VICTORY POINTS



BE2c aircraft flown by Lt. William Leefe-Robinson

Shot down the first enemy airship over Britain on 2 September 1916 (note the high-angle Lewis light machinegun)

Drawing © 2009 R N Pearson

BRITISH MARKER GAME EFFECTS

MG ELIM: Immediately removes one German marker after another German marker is turned over. This marker remains in the defensive zone it was placed in for the rest of the game unless the German RETURN FIRE or ELITE CREW marker is revealed in that zone, in which case both the MG ELIM and RETURN FIRE or ELITE CREW markers are both removed from that zone. If the MG ELIM marker is not removed, that zone gets one less German marker for the rest of the game until a German RETURN FIRE or ELITE CREW marker is revealed in that zone.

SEARCHLIGHT: Remains in the zone it is revealed in for the rest of the turn and continues to cancel and remove all German DARK NIGHT markers.

GERMAN MARKER GAME EFFECTS

ELITE CREW: Cancels any British marker that was just revealed, and then is removed.

GUN JAM: Cancels any HIT and ends the turn immediately unless a British CLEAR JAM marker is already revealed or immediately revealed.

RAPID ASCENT: Any British HIT markers revealed take immediate effect, and then, if the Zeppelin is not destroyed, the Zeppelin successfully escapes. The game ends immediately (no step 11) unless the British ACE PILOT marker is already revealed or immediately revealed.

PREPARING THE GAME: Remove the game from the cover of the magazine by carefully tearing along the perforation, then bend the square markers along their perforations in order to make it easier to separate each marker.

OBJECT OF GAME: The side with the most Victory Points (VP) after three turns is the winner. The British player destroys the Zeppelin if within three turns he places 6 hits on any one of the three zones. Even if the Zeppelin is destroyed, the German side can still win if he gets more VP than the British player. After three turns the British aeroplane runs low on fuel and must leave and/or the Zeppelin is able to escape.

ZEPPELIN DEFENSIVE ZONES: The Zeppelin game board is divided into 3 defensive zones or areas. Each zone has two numbers in it with the German or British insignia next to that number. This number represents how many British or German markers may be placed in that zone. For example, the Front zone may have 3 German and 3 British markers.

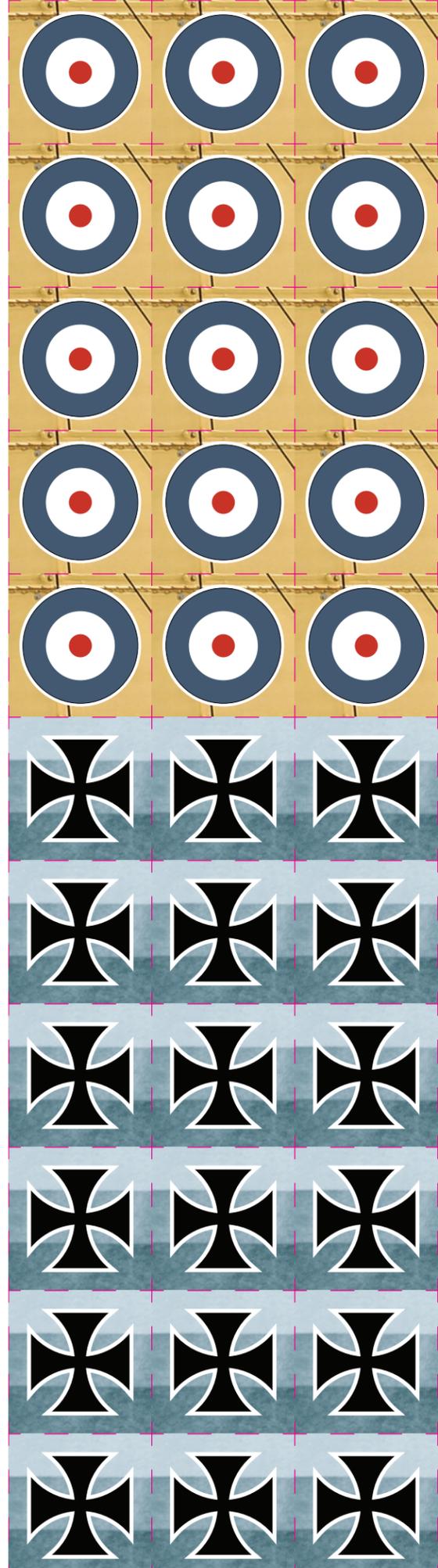
PLAYING PIECES (MARKERS): The 1-inch square playing pieces are called "markers." Each marker has either the German Iron Cross or the British Roundel on one side, and a game effect on the opposite side. There are 15 British and 18 German markers total. The different markers and their effects are shown at the bottom of the game board.

HOW TO PLAY THE SOLITAIRE GAME

You are the British pilot trying to shoot down the Zeppelin. Each turn consists of:

- 1) Lay out the 18 German markers with the insignia side face up. Do not look at the opposite (game effects) side. Mix the markers and randomly choose one marker and place it on the zero ("0") space on German Victory Point track insignia side up.
- 2) Then, without looking at the opposite (game effects) side, place the permitted number of German markers insignia side up in each of the 3 defensive zones: 3 markers in Front, 5 markers in Middle, and 4 markers in Rear. There will be five German markers left over after you do this. Do not look at the opposite sides of any German marker!
- 3) Other than a HIT marker, choose any one British marker with the game effect you want to use for this turn. Then mix up the remaining 14 British markers with the insignia side face up. Do not look at the opposite (game effects) side of these British markers. Randomly choose one of these markers and place it on the zero ("0") space on the British Victory Point track.
- 4) Choose one defensive zone to attack and randomly choose the number of additional British markers you need for that zone. For example, if you attack the Front zone, you may choose two more British markers to go with the one British marker you chose in step 3.
- 5) To attack a zone, place one British marker in that defensive zone with its game effects side face up. Before you apply any effects of that marker, turn over one of the German markers in that same defensive zone.
- 6) If the German marker cancels the effect of the British marker just played, remove both markers from that defensive zone.
- 7) If the German marker has no effect on the British marker, the British marker remains in that zone unless it says to remove it immediately or at the end of the turn.
- 8) Continue turning over one British marker, followed immediately by one German marker, as outlined in steps 5-7 above, until every marker in that zone has been turned effects side face up.
- 9) Markers such as British HIT markers move the marker on the Victory Point track. For example, if a British 2 HIT and 1 HIT are revealed in a zone and are not canceled by German markers, you move the British marker on the Victory Point track to the "3" space.
- 10) After all markers in that zone have been revealed to show their game effects. Except for markers that say they stay in the zone, remove all British and German markers from every zone, but leave the two markers on the Victory Point tracks.

(continued)





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WORLD WAR ONE: UNRESTRICTED GERMAN U-BOAT WARFARE INFLECTS TERRIBLE LOSSES ON MERCHANT SHIPPING. THERE WERE FEW COUNTERMEASURES, BUT THERE WAS A WEAKNESS:

TORPEDO HITS REQUIRED U-BOAT COMMANDERS TO VISUALLY ESTIMATE THE SPEED OF THEIR TARGETS WITHIN TWO KNOTS, AND THEIR COURSES WITHIN TWO POINTS.

U-BOAT
(UNTERSEEBOOT-
'UNDERSEA BOAT')
PERISCOPE



AMAZING
WAR
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A REVOLUTIONARY METHOD OF CAMOUFLAGE WAS DEVELOPED AS A DETERRENT:

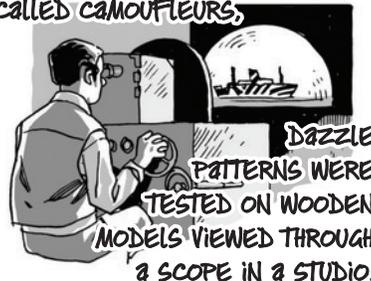
DAZZLE CAMOUFLAGE

DAZZLE CAMOUFLAGE'S DISRUPTIVE COMPLEX GEOMETRIC PATTERNS IN CONTRASTING COLORS INCREASED THE DIFFICULTY OF VISUALLY DETERMINING A TARGET SHIP'S TYPE, SIZE, RANGE, HEADING AND SPEED.



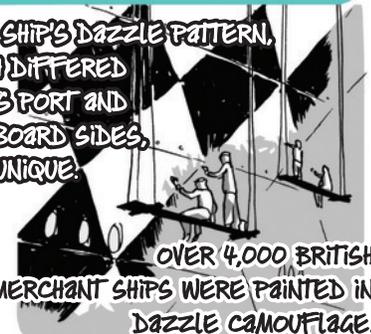
FALSE BOW WAVES WERE OFTEN PAINTED ON TO ADD TO THE CONFUSION.

DESIGNED BY ARTISTS CALLED CAMOUFLEURS



DAZZLE PATTERNS WERE TESTED ON WOODEN MODELS VIEWED THROUGH A SCOPE IN A STUDIO.

EACH SHIP'S DAZZLE PATTERN, WHICH DIFFERED ON ITS PORT AND STARBOARD SIDES, WAS UNIQUE.



OVER 4,000 BRITISH MERCHANT SHIPS WERE PAINTED IN DAZZLE CAMOUFLAGE.

