# Designer Notes: Squad Battles - The First World War

In 1914, the world erupted in a conflict that was thought would be over in matter of months. The armies marched off to war in appearance and manner akin to distant cousins of the Napoleonic Period, with many units dressed in colorful uniforms and trained to fight in dense formations. Commanders of the day stressed the operational art of war. Battles were fought on the grand scale of million-man armies where it was thought that tactical issues were of minimal importance since it was rationalized that tactical success or failure would be negated by bypass and maneuver at the operational level.

Four years later, with over 10 million dead and Europe in complete ruin, over a thousand miles of trenches had been dug and poison gas, light machine guns, tanks, aircraft, and modern artillery, had all came into existence. This "First World War" had become the genesis of modern warfare, seeing innovative developments in weaponry and tactics as both sides raced to develop tools and techniques in the quest to break the deadlock that

dominated the war's main arena: the Western Front. However, one of the most important innovations born out of this conflict was not a specific piece of weaponry, it was a change in the tactical mindset of commanders: the introduction of small unit tactics, or squad level warfare. Ironically, it was the evolution at the tactical level that finally brought about a strategic result to the conflict.

Squad Battles: First World War allows you to experience the technical and tactical advancements of that conflict, and the terrible battles that were carried out. Can you survive the horrific campaigns of the First World War?

# CONTENTS

# INTRODUCTION

A careful eye might spot "2002" on the campaign splash screen in Squad Battles: First World War (SB:FWW). Development on this game began a staggering ten years ago(!), however for one reason or another it remained on the back burner, waiting primarily for the necessary changes and enhancements to the Squad Battles engine that SB:FWW required. About four years after that, when I had only just proposed First World War Campaigns: France '14 as a possible project, Mr. Tiller was finally able to add the enhancements needed to allow the nasty business of First World War trench warfare to be fully represented. I took over the project on the first year of France '14's four year development, ambitious as ever that I would complete both games in just a couple of short years. Progress was made on SB:FWW where I could, but gradually, as I came to realize that France '14 ranked high on the list of the most ambitious wargames ever attempted, SB:FWW shifted to be a secondary project. Once France '14 was finally complete, I shifted all resources to finally finish off SB:FWW and finally wrap up its ten year development. One advantage this casual approach to SB:FWW development had (as a secondary project during France '14 development) is that it allowed me to do thorough and extensive squad level research over the course of those years spent developing France '14. Extensive squad level research is vital in a project like SB:FWW, where squad level warfare was just coming into existence and many transitions were occurring throughout the period covered by the game. The research over the years had some particularly frustrating moments. During development, I had been known to curse the fact that I actually designed SB:FWW at least three times over, because constant changes resulted in scenarios having to be entirely reworked several times until the organization and feel was correct. Another advantage of the long design process is that SB:FWW spent a lot of time in the oven, so to speak. A great

deal of time was spent thinking about, planning, and typing up the various campaigns which, in hindsight at least, I may have went a bit overboard with (there are seven campaigns, with one in particular having 17 campaign only exclusive scenarios). However, I devoted a great deal of time to them because the campaigns are easily my favorite aspect of SB:FWW, and the series in general.

Early in development, I felt that in order to properly present the First World War in a Squad Battles title, the game must plainly demonstrate the tactical transitions and the advancements in weaponry that occurred throughout the war. These transitions and advancements must be transparent enough that it feels like scenarios that take place from 1914 to 1918, are all from a completely different game. I then went a step further and, as mentioned, because I personally love the campaign element of the Squad Battles series, I sought to create some of the grandest set of campaigns yet devised, with at least one case having the user fight through the entire war. In this way, the participant(s) can visually experience the birth and early maturity of squad level tactics. It can be said that, in regards to historical content, SB:FWW is the father of all Squad Battles games, being that it covers the dawn of "modern" squad level warfare. So, with that in mind, a great deal of emphasis was placed on making SB:FWW a well rounded experience of the First World War, to properly set the stage for all the other excellent Squad Battles that take place after it.

## Recommended Optional Rules

In SB:FWW, the Quality Loss Modifier and Alternate Fire Density rules have been disabled, due to the unique size of the units present in this title as opposed to other Squad Battles titles. In SB:FWW, the unit sizes can be quite large and this resulted in a wide range of unintended imbalances in scenarios (too many casualties, and too many leaders lost) if

played with either of those optional rules on, as opposed to playing with them off. Disabling both of these rules was the safest way to ensure the intended results in these scenarios since the use of one or both rules usually meant the attacker taking too many casualties, and an impossible scenario**.** Beyond that, users are encouraged to turn on "Vehicle Fire Over" optional rule, and can use whatever rules beyond that that they prefer.

# RECOMMENDED MODE OF PLAY (BY SCENARIO)

The following table is a list of non-campaign scenarios and the recommended mode of play for each to ensure a challenging experience. Note that regardless of what is suggested in this list, all scenarios can be played head to head/PBEM as a mirrored match (i.e. both people play each side, preferably stagger both scenarios by six turns or so).

Notes:

- In the list below, "HtH" = Head to Head (i.e. play by email, hotseat or TCP/IP against another player), "CP" = Central Powers, "Allies" = Allied Powers, and "AI" = Artificial Intelligence.
- Anything marked with an asterisk "*" denotes that special information is mentioned in the scenario description, such as a required house rule.

| **Scenario file** | **Recommended mode of play** |
|---|---|
| #Started | *Allies vs. AI* |
| 1914-Charleroi-01 | *CP vs. AI; or HtH* |
| 1914-Gheluvelt-01 | *CP vs. AI; or HtH* |
| 1914-Gheluvelt-02 | *Allies vs. AI; or HtH* |
| 1914-Gumbinnen-01 | *CP vs. AI; or HtH* |
| 1914-Krasnik-01 | *Allies vs. AI; or HtH* |
| 1914-Messines-01 | *CP vs. AI; or HtH* |
| 1914-Messines-02 | *Any* |
| 1914-Mons-01 | *CP vs. AI; or HtH* |
| 1914-Stallupoenen-01 | *CP vs. AI; or HtH* |
| 1915-Gallipoli-01 | *Allies vs. AI; or HtH* |
| 1915-Gallipoli-02 | *Allies vs. AI; or HtH* |
| 1915-Gallipoli-03 | *Allies vs. AI; or HtH* |
| 1915-Gallipoli-04 | *Any* |
| 1915-Gallipoli-05 | *Allies vs. AI; or HtH* |
| 1915-Gallipoli-06 | *CP vs. AI; or HtH* |
| 1915-Gallipoli-07 | *CP vs. AI; or HtH* |

| | |
|---|---|
| 1915-Gallipoli-08 | *Allies vs. AI; or HtH** |
| 1915-Gallipoli-09 | *Allies vs. AI; or HtH* |
| 1915-Gallipoli-10 | *Any* |
| 1915-Gallipoli-11 | *CP vs. AI; or HtH* |
| 1916-Flers-01 | *Allies vs. AI; or HtH* |
| 1916-Somme-01 | *Allies vs. AI; or HtH* |
| 1916-Somme-02 | *Any* |
| 1916-Somme-03 | *CP vs. AI; or HtH* |
| 1916-Somme-04 | *Allies vs. AI; or HtH* |
| 1916-Somme-05 | *Allies vs. AI; or HtH* |
| 1916-Somme-06 | *Any* |
| 1916-Somme-07 | *Allies vs. AI; or HtH* |
| 1916-Somme-08 | *Any* |
| 1916-Somme-09 | *Any* |
| 1916-Somme-10 | *Any* |
| 1916-Verdun-01 | *CP vs. AI; or HtH* |
| 1917-Cambrai-01 | *Allies vs. AI* |
| 1917-Cambrai-02 | *Allies vs. AI* |
| 1917-Cambrai-03 | *Allies vs. AI; or HtH* |
| 1917-Cambrai-04 | *Allies vs. AI* |
| 1917-Vimy Ridge-01 | *Allies vs. AI; or HtH* |
| 1917-Vimy Ridge-02 | *Any* |
| 1917-Vimy Ridge-03 | *Allies vs. AI; or HtH* |
| 1917-Vimy Ridge-04 | *Allies vs. AI; or HtH* |
| 1918-Amiens-01 | *Allies vs. AI; or HtH* |
| 1918-Argonne-01 | *Allies vs. AI; or HtH* |
| 1918-Argonne-02 | *Allies vs. AI* |
| 1918-Argonne-03 | *Allies vs. AI; or HtH* |
| 1918-Argonne-04 | *Allies vs. AI; or HtH* |
| 1918-Argonne-05 | *CP vs. AI* |
| 1918-Argonne-06 | *Any* |
| 1918-Argonne-07 | *Any* |
| 1918-Argonne-08 | *Any* |
| 1918-Argonne-09 | *Any* |
| 1918-Argonne-10 | *Any* |
| 1918-Argonne-11 | *Allies or CP vs. AI* |
| 1918-Belleau Wood-01 | *Allies vs. AI; or HtH* |
| 1918-Belleau Wood-02 | *Allies vs. AI; or HtH* |
| 1918-Belleau Wood-03 | *CP vs. AI; or HtH* |
| 1918-Belleau Wood-04 | *Allies vs. AI; or HtH* |
| 1918-Belleau Wood-05 | *Allies vs. AI; or HtH* |
| 1918-Belleau Wood-06 | *Allies vs. AI; or HtH* |
| 1918-Belleau Wood-07 | *Any* |
| 1918-Belleau Wood-08 | *Allies vs. AI; or HtH* |
| 1918-Cantigny-01 | *Allies vs. AI; or HtH* |

| | |
|---|---|
| 1918-Cantigny-02 | *CP vs. AI; or HtH* |
| 1918-Hamel-01 | *Allies vs. AI; or HtH* |
| 1918-Moreuil-01 | *Allies vs. AI; or HtH* |
| 1918-Villers-Bretonneux-01 | *CP vs. AI; or HtH* |

# SQUAD SCALE / COMPOSITION

A great deal of experimenting and thought went into getting the unit scale of this title down to where it felt right. As the series name suggests, the game is about squad level combat. However, small unit tactics that are associated with squad level action did not formally come into existence until the latter half of the First World War with the official formation of German army level "sturm" units in 1916, however the British and French experimented with infantry sections of their own around the same year.[1] Eventually small unit tactics saw widespread adoption by all sides in one form or another by 1918, but it was the Germans who perfected the squad as an independent tactical unit.[2]

In the early years of the war between 1914 and 1915, in game squad sized units are impractical for the tactics of the period because squad (and even section) sized units allows a level of flexibility and freedom that was historically unavailable. During this early period,

---

[1] In some ways it can be said that the British were the first to pioneer small level tactical units in 1916, with their specialized 12 man section organizations backed up by a revolutionary development: the Lewis gun wielding light machine gun team. However, it was the Germans who first fully adopted and refined aggressive squad level infiltration tactics, and small uniform 9 man squads.

[2] It must be mentioned that storm troop tactics (which may be also be referred to as "infiltration tactics" in literature and in this wargame), based on squad level units, was first proposed by a French Army captain, Andre Leffargue. Leffaurge published a pamphlet in 1915 entitled "The Attack in Trench Warfare". However, it is certainly false to suggest that the German storm troop tactics were completely and directly copied from Leffargue's theory. The faulty rationale behind this popular view is mostly born out of ignorance and failure to understand storm troop tactics in the inter war periods where the major powers were attempting to develop their own similar methods. Although the Germans may have used Leffargue's theory as one early form of inspiration, the Germans were developing their unique small unit tactics out of their own improvisations and trials that occurred throughout the war.

the platoon was the maneuver element, and any organization below this size was generally for administrative purposes only and not a tactical element. However, this is not completely true as according to the German Drill Regulations of 1906, the German rifle platoon would split up into half platoons or less in order to gain superiority over the enemy, but the practice of splitting up the platoon was generally regarded as something that should be avoided whenever possible.[3] During the design of SB:FWW, the initial approach was to make very large 50+ men platoon sized units for the early period of the war, but these units proved to be too dense and inflexible, basically this initial approach was too far in the opposite extreme. Even though early war infantry companies should not be allowed the flexibility to break down into squad and section sized units, they should still have more flexibility than single large platoon sized units would afford, because infantry platoons of the period were known to go into "open order" or "skirmish", which basically means that the platoon could spread out if need be. The end solution was to make pre-small unit tactic period infantry into units of half platoon and, in the middle period, sections, splitting each platoon into two or more moderately large units. These units usually begin a scenario in or around the same hex stacked with their platoon leader (close order), or they begin spread out between several hexes (open order), and the user can adjust it from there depending on the unfolding situation.

Each hex in the Squad Battles series is roughly 40m across. With the rather large 30-40 man half platoon units in 1914 and 1915, it would seem unreasonable to have this many soldiers in a small area like this. However, it cannot be stressed enough that the unit sizes in the early period of the war has more to do with lack of flexibility and control than it does with literal numbers of troops physically occupying  a hex. In game play terms, it is more

[3] Gudmundsson, Bruce I. *Stormtroop Tactics: Innovation in the German Army, 1914-1918.* 21.

important to limit tactical flexibility to properly model early war doctrine and tactics. Therefore, it is rationalized that in the early period of the war, each 30-40 man half platoon or, in mid war, ~20 man section, does not physically occupy the single hex that the counter is located in, rather, the unit's nucleus is centered on that hex with troops located in and around the map counter's adjacent hexes and, in some cases, several hexes beyond. A typical frontage of an infantry platoon of the early war period (in open / skirmish order) would be about 300m. This roughly translates as two half platoon units with an empty hex in between, and empty hexes to either side of them.

Later in the war modern small unit tactics began to evolve, and many of the opposing armies of 1917 and 1918 were in no way similar to each other in how they chose to break their infantry platoons into smaller tactical units. This was due to the fact that all nations were traversing unknown territory and evolving their tactics independently with their own unique experiences, and their own weapon systems. The Germans were the pioneers of symmetrical squad level tactical elements known as a squad ("gruppe") from their experimentation with stoßtruppen beginning as early as 1915. The French began to adopt a similar tactic of symmetrical "groupes de combat" in 1918, but had experimented with the idea since 1915 and officially adopted other symmetrical section sized unit organizations by 1916 as well. However, the British and the Americans adopted their own unique method of breaking down platoons into asymmetrical sections, each with a slightly different task. For example, an American infantry platoon broke down into four sections, each numbering a different amount of men and carrying a different array of weapons. The first section was the "hand bomber section", essentially grenadiers that were trained and equipped in the use of hand grenades. The second section was the platoon's rifle grenadiers contingent, the third section was the platoon's riflemen, and the fourth section contained the platoon's automatic rifles. The British followed a similar method of asymmetrical

breakdown throughout the war, but gradually moved to a more, but not completely, symmetrical composition near the war's end. While asymmetrical units are not as well balanced as the symmetrical ones, asymmetrical units did have their advantages in the concentration of a specific type of firepower.

After 1918, modern infantry evolved from the culmination of experiences gained during the First World War and all modern infantry would be based upon symmetrical units and small unit tactics which were perfected by German stoßtruppen. Still, all of these advantages and disadvantages of unit composition during a time when small unit tactics were drastically evolving need to be, and are, represented in SB:FWW, and the ability for the user to experience and see this evolution during the game is something that should make this Squad Battles title unique and exciting. With the experience of playing SB:FWW, it should be relatively easy to observe the evolution of small unit tactics as you play scenarios from the start to the end of the war, and it may give some idea of how the popular myth that the entire war consisted of brain dead and non-innovative tactics with foolish commanders ordering their men to charge trenches en masse is simply not true. Once it became clear to both sides that there had to be another way to overcome the stalemate, lest the war be decided by the side who had the last person left alive, tactics and weapons evolved accordingly. Throughout the war, it was this constant and drastic tactical and technical evolution and the trial and error experimentation which helped eventually break the deadlock and bring about a resolution to the conflict, as the nasty business of killing entrenched humans simply became more efficient.

## FRENCH INFANTRY STRUCTURE

French infantry company structure in 1914-15 was somewhat of an awkward issue which deserves special mention. Historically, the French had an “on paper” administrative structure and an “in the field” combat structure. In peace time, a French infantry company was organized into two large platoons of approximately 130 men and these were broken into two massive 60-70 men "squads" (called peloton, or platoon, in the French Army). These half company sized platoons units were not tactical elements, but were instead a grouping for peace time interior economy purposes. Upon mobilization the company was split into four platoons (called sections in French) of 65 men. In SB:FWW these sections are split into two half platoon (demi-section) units to allow the unit to go open order and utilize road movement rate, which is in line with the other armies of the period.

In 1916 through 1918, the French continued this “combat” structure of four sections in each company, modifying the composition of each section as the war progressed and reducing the number of companies in each battalion to three. In 1916 the French split the section into half sections (or demi-sections), and in 1918 the section was split into squads called “groupes de combat”. All of this is represented at the appropriate time in SB:FWW's order of battle templates and scenarios.

## GERMAN INFANTRY STRUCTURE

Of all the infantry in the First World War, the German infantry were the most difficult to deal with and require the most explanation in regards to design decisions. The Allied Power infantry organization through the war was relatively neat and straight forward, but the Germans were slowly mutating into a modern infantry force. Needless to say, dealing with the different battalion level organizational changes of the German Army from 1914-18 was mind numbing and extremely frustrating. It was perhaps more

frustrating than all the work involved with the design of the France '14 order of battle, because many popular books on the German Army, and especially the stoßtruppen, either contain glaring oversights, incomplete information, or blatantly contradict each other.

As mentioned in section Squad Scale / Composition, early German infantry formations are in large half platoon groups. These half platoons are not labeled as a halbzug ("half platoon"), rather they both have the designation of a zug, since it is understood that it is not a platoon acting as half platoon maneuver elements, it is instead a platoon spread between the locations of those two subunits. This approach is also true for the early organizations of other nationalities, the two or more subunits of a platoon contain the same name of their parent organization.

In regards to German infantry organization, structure, and early tactics, it must be understood that the German Army was the most decentralized army in Europe in that there was no one standard tactical way of thinking throughout the army.[4] Corps districts were responsible for their own training, and some units preferred different formations and tactical movement techniques. Some preferred the old and rigid Franco-Prussian War era "columns of platoons" dense formations that allowed easy command and control of the company and greater power in the assault, while others preferred Boer War type open order formations that made command and control more difficult, but afforded greater firepower and made the company less vulnerable to enemy fire. In SB:FWW in the 1914-1915 scenarios it is assumed that, with the exception of any scenario that features garde units,[5] all German infantry battalions utilize open order tactics and formations (company is spread more across the front than it is in depth) over the old column of platoons method. It

[4] *Gudmundsson, 18.*

[5] German garde units were known to use massed column of platoon formations for shock effect.

should be kept in mind however that given the decentralized nature of the army, some battalions used either tactic and, although rare, some battalions even used squads and sections before storm troop tactics had even been invented.[6] This means that technically, a scenario involving early war Germans could feature German infantry in a multitude of organizations, even ad-hoc structures, as well as using a variety of tactics. The template order of battles included with SB:FWW are structured in the standard pattern however, of large platoons and sub units.

Later in the war, the decentralized nature of the German Army ensured that unit structure and organization changed drastically, often in an ad hoc manner in which the Germans are best known. Battle groups were created as needed, and the harsh reality is that any sort of clear cut outline or template of standard organization for a 1918 German infantry battalion becomes a difficult, if not impossible task. With that in mind, the late 1917 and 1918 German battalions are organized more on a logical approach with a minimal amount of ad hoc units.

## *Equipment*

The first aspect that must be explained is the gradual progressing of equipment in the German Army. For most armies, this process was relatively straight forward, but the German Army, as can be expected, was re-equipped and modernized as a series of constant and irregular improvisations. The main problem is that the trickling down of new equipment and the establishment of new organizations did not always happen at the same time. In SB:FWW, the German infantry order of battles follow the typical re-equipping

[6] Infanterie-Regiment.142, the infantry regiment that Erwin Rommel commanded a platoon in at the start the war, was one of the most notorious examples of an infantry regiment that had their own brand of tactics which utilized small tactical units.

schedule defined in Herman Cron's Imperial German Army 1914-18. In it, the following schedule is defined and followed in SB:FWW (paraphrased and edited to show only the information pertinent to SB:FWW):[7]

- FEB 1915 Infantry equipped with rifle grenades
- AUG 1916 Infantry equipped with steel helmets (the sturm battalions are equipped with helmets from their inception)
- FEB 1917 Infantry battalions assigned a detachment of 4 7.6cm minenwerfers, and a detachment of 8 Grantenwerfer-16s, and rifle grenades discontinued
- MAY 1917 Each infantry company is equipped with 2 MG 08/15 LMGs
- AUG 1917 Infantry battalion Grantenwerfer-16 detachments are dissolved, two granatenwerfers are instead attached directly to each infantry company.
- SEP 1917 The number of MG 08/15 LMGs in each infantry company is increased from 2 to 4.
- FEB 1918 The number of MG 08/15 LMGs in each infantry company is increased from 4 to 6 **(Design note: LMGs are now integrated into the line infantry platoons, see notes on LMGs below).**
- OCT 1918 Infantry battalions reduced from 4 line companies to 3 **(Design note: this is extremely important. An Osprey book in particular incorrectly implies that the German infantry battalion in 1917-18 is composed of three line companies. In fact, the German infantry battalion was not reduced to three companies until a decree by OHL on 18 August 1918, only three months before the end of the war).**[8]

---

[7] Cron, Herman. *Imperial German Army 1914-18: Organization, Structure, Orders-of-Battle.* 112-114.

[8] This misinformation actually caused a great deal of confusion during the design of SB:FWW. The book in question does not say when the battalions were reduced to three companies, although it does mention that in 1917 the strength of the infantry battalion was reduced from 1076 men to 650 men. It was initially assumed that the decline in number of men coincided with the removal of one of the infantry companies (the 4th), but this turns out to be false. This designer interprets the strength reduction event as follows (based on research from at least four different books): with the influx of supporting weapons in the infantry battalion in 1917, the actual strength of the infantry platoon was reduced in men by just under 40%, to squad strength of nine men. Gudmundsson states (148) that a German infantry company in 1918 as having 18 squads, six of which were LMG squads. This places four squads in each platoon, with two additional squads of LMGs in each. 18 (squads) * 9 (men) = 162 (men). 162 (men) * 4 (companies) = 648 men.

## *MG 08/15 Squads and Teams*

German MG 08/15 light machine gun teams deserve special mention in regards to their organization. Officially, the German Army employed the MG 08/15 in a nine man separate LMG squad (one man carried and fired the weapon, two men carried water and ammo, five men acted as spare gunners and carriers and carried rifles and grenades and one NCO led the squad), however infantry companies could rarely afford the luxury of having this separate unit.[9] The approach taken in the SB:FWW order of battle templates for "ordinary" German infantry battalions is that the MG 08/15 LMG is first introduced in teams of 9 men (8 men + 1 NCO), as per regulation. The teams are not initially integrated with the infantry platoons, they are instead placed outside the infantry platoons and alongside the other specialist units in the company such as sniper teams and assault groups. This approach intentionally creates the historical "chunkiness" in regards to their early integration.[10] Out of necessity of declining manpower, in the late 1917 and 1918 "ordinary" (non-Angriff-Divisionen) German infantry battalion templates the MG 08/15 gets integrated into the infantry platoon by getting added to two squads. This essentially begins to form the mixed squad, which became the norm for World War Two German infantry. In a sense, this is what the British had already done with the Lewis gun: it too starting as a separate team, being gradually integrated into the infantry section. When the "ordinary" German infantry battalions adopted this approach, it essentially created a class based set of infantry where two squads in a platoon acted as an assault force while the other two acted as a support by fire (suppressing) element. However, sturm battalions and angriff-division infantry battalions do not follow this design approach in the order of battle templates; instead the

[9] Gudmundsson, 100.

[10] Keeping them separate from the infantry platoons causes a historical command and control disadvantage since, for best results, they must be rallied by the company commander.

MG 08/15 is kept in their regulation LMG squad (as described above), and it remains this way throughout the war. The reason for this is because it can be assumed that, directly contrasting with the ordinary infantry battalions, the sturm and angriff-division battalions could certainly afford the luxury of maintaining the separate LMG squads, because they received the best replacements and were kept at ideal strength before the start of the Spring Offensive. Also, the design approach of keeping the LMG squad/team separate from the assault groups (squads) is vital for game play, because it allows a more historical level of tactical freedom to the assault platoon and the company as a whole. If the LMG was integrated into two of the assault groups, it would create the direct opposite effect of what the storm troops had achieved: a uniformly equipped squad force, that was not directly tied down to the LMG. Instead, this game play approach ensures that the LMG squads can help suppress the enemy while all four assault groups of a platoon can maneuver on the threat.

## *The Stoßtruppen*[11]

The birth of modern squad tactics occurred with the rise of the German stoßtruppen, or stormtroops. Any idea that the Germans had copied tactics being developed by the Allied Powers is rooted inter war ignorance and complete lack of understanding of storm troop tactics. In 1915, Hauptmann Willy Martin Rohr took command of a Storm detachment (Sturm-Abteilung), subsequently named Sturm-Abt.Rohr. This detachment was conceived as a unit to test new theories, tactics and weapons to help overcome the stalemate of the trenches. Rohr's detachment was given a great deal of supporting assets

[11] Stoßtruppen have many interchangeable names. In this document, they may be referred to as "sturm troops", "storm troops" "stosstruppen", or in the singular. Technically the difference between "stoß" (stoss) and "sturm" was that the former came to be the name associated with the specialized assault infantry themselves, while the latter came to be used in the general form to specify units that used infiltration tactics. This document does not distinguish between the various technical details in the use of the words "stoss" and "sturm".

not initially through means of foresight, but rather to simulate a miniature division in which his theories and tactics could be fully experimented with. However, the massive amount of supporting assets, which was directly opposite of the old norm of a homogonous infantry only establishment, quickly proved to be extremely useful to the sturm detachment's pioneers. Through experimentation, it was discovered that the additional supporting assets provided the necessary and immediate direct support to the infantryman to allow him to effectively assault an objective. In addition, the dense formations of men in columns and skirmish lines, which had previously been the normal way for infantry to conduct combat, were completely done away with. Rohr's troops adopted a tactic of breaking infantry platoons into small squad elements, and each squad was equipped in the same uniform manner with a plethora of hand grenades. The squads would move across no man's land and towards their objectives without any attempt being made to maintain a connection between them.[12] The non-commissioned officer (NCO) would lead these squads, which was another drastic change to the established norm. Up until that point, NCOs had been someone who followed behind the troops, his chief duty being to keep the infantry moving in the proper direction and to provide motivation to an infantryman who might have lost his courage.[13] This change in role of the NCO into a true tactical leader was a change that would take root in the modern squad tactics: the NCO would become a leader of soldiers, someone who would be in front of his men providing leadership, direction, and motivation, and an example to which other soldiers would follow. The changes in tactics gave birth to a new form of warfare; no longer was the infantryman an element of fodder that would be committed en masse whose sole purpose had been to place a mass concentration of fire onto a target area, nor was the squad just an element used for administration purposes,

[12] Gudmundsson, 50.

[13] Gudmundsson, 51.

rather, the infantryman and his squad had become a tactical unit which had a specific purpose and an individual objective to accomplish.

These tactics were refined when Rohr's detachment was committed to battle on several occasions. These constantly refined tactics were then passed along to the standard infantryman at schools taught by the men of Rohr's detachment. The gradual goal established by German high command was to pass this knowledge to all ordinary infantryman as a means to change how the entire army fought. Gradually, throughout 1916-1918, the German Army can be seen to transform in accordance with these new tactics and theories, first with the large scale adoption of grenades, the adoption of the steel helmet and, in 1917, the adoption of a mix of supporting assets within the infantry battalion. By 1918, with the help of Erich Ludendorff who was now in joint command of the entire German Army, storm troop tactics were wholly assimilated by entire divisions. These divisions consisted of the best of the German Army, and their ranks were filled with the youngest, most physically fit and highest motivated soldiers. These divisions came to be known as "attack divisions" (angriff-divisionen). The novel aspect at the time was that the entire division was essentially a force of storm troops (although the original army level assault battalions were still of higher troop quality). This essentially acted as the birth of the modern infantry division. Indeed at this point, many parallels can be drawn between the angriff-division and Second World War German infantry division being that they essentially were, at that point, the grandfather of those divisions. The other three quarters of the German Army's divisions in 1918, who were not classified as attack divisions, and who were not organized or completely trained to act as storm troops, became either a second echelon force of standard infantry divisions known as "trench divisions" (stellung-divisionen), or known simply as ordinary divisions. Trench divisions were only capable of defensive or

supporting actions, and were used to man sectors of the trench to free up attack divisions.[14] Thus by the Spring Offensive in 1918, many divisions in the German Army were functioning like massive and powerful entities of a once specialized and limited number of Sturm battalions.[15] It then becomes easy to understand how the initial successes of the Spring Offensive were possible, being that the German Army was, at least as far as a large portion is concerned, evolved into a modern force.

In SB:FWW, the structure and organization of the sturm battalions and companies, as well as the Rohr detachment, and later battalion, are all organized according to Gudmundsson's excellent book Stormtrooper Tactics: Innovation in the German Army, 1914-1918. This book is heavily suggested as further reading for any student of the First World War or for anyone interested in infantry tactics in general. In designing SB:FWW, initially the organization of these units were extremely difficult to get accurate, mainly because many available sources contradict each other, and because those sources based much of their own information on some of the ad hoc organizations of regimental and divisional sturm detachments of 1916. During SB:FWW development, the order of battle structure of all of these sturm units changed many times based on newly researched and often contradicting data. Each time the order of battles changed, the scenarios containing those units had to change as well. Needless to say, it was extremely frustrating and time consuming to get this aspect right. In the end, Gudmundsson's book was used as the

[14] Most trench divisions (stellung-divisionen) still had their own organic assault detachments that they created, but the difference between them and attack divisions (angriff-divisionen) was that the attack division was essentially, in full, a formation of assault infantry but without some of the heavier supporting assets of the actual army level assault battalions, and had lesser quality troops in comparison to the army level assault battalions.

[15] In SB:FWW's order of battle templates, the German 1918 infantry battalion template represents a standard infantry battalion. To make a Spring Offensive 1918 scenario featuring a battalion of an "attack division", an "Agriff-Div" order of battle template is provided.

definitive source for the final storm troop organizations because of his thoroughness and attention to detail in describing the gradual evolution of the unit structure. It must however be stressed that after 1916 these sturm units organized themselves into battle groups (sturm-blocks) depending on their specific objective they had to accomplish. Therefore, anyone making a scenario should use the sturm unit templates only as a basic guideline, and adjust it as needed to fit the scenario or, even better, the sturm-block template should be used to construct your own custom sturm unit.

## *Sturm-Btl.5 (Rohr)*

Sturm-battalion.5 (Rohr), as well as the earlier Sturm-Abt.Rohr deserve special mention in regards to their organization. This unit was formed from pioneer troops in 1915, therefore the company sizes of this unit was of the early war excessively large size of over 200 men. As far as can be determined, the company size of this formation remained at that strength throughout the war and it did not change with the 1917 strength reductions enacted in infantry formations, nor did it ever adopt the ~120 man assault company strength of the army level assault battalions. This large company size creates an uncertainty as to exactly how many assault squads (gruppe) existed in the platoon, as well as how many platoons existed in each company. Since it was rare that a company officially had more than three platoons, in SB:FWW the Rohr battalion templates have the number of platoons kept to three. This means that in SB:FWW, the platoons have eight squads, which is about twice as many squads as army level sturm battalions and infantry battalions. While future information may shed light on this issue, it should be remembered that this detail is not particularly important since the independent sturm formations rarely fought as a complete force: they were instead often broken down into squads and combined as needed into what

would essentially be a team or battle group (sturm-blocks).[16] Therefore, any scenario in which Rohr units participate should have them organized into these custom assembled sturm-blocks. Also, it must be said that Sturm-Btl.5 (Rohr) was, at its heart, a training formation. It would not be unreasonable for the platoons to be very large for, if nothing else, it to be able to accomplish its dual assignment of training other assault units and to participate in combat. The battalion was constantly trying to maintain its large size in order to facilitate its dual mission, and retaining the large pre-war platoon size at twice the number of squads is, in the designer's opinion, the most logical approach to how they were most likely organized.

## *Pioneers*

The German pioneer organization was somewhat difficult to come to a game play consensus on. On the one hand the pioneers were trained to operate in small teams to assault fortresses and field works, however they were no storm troops (although they had heavy supporting assets and were often used to lead attacks in 1914-16). The game design dilemma was that if pioneers were organized in squad sized formations (gruppen) then they would essentially be the equivalent to storm troops. This is compounded by the fact that, for what can be determined, the pioneers never adopted the strength reduction that was enacted in infantry battalions in 1917, so pioneer companies and battalions remained at their pre war strength throughout. Given that fact, and the desire to keep these units explicitly separate from late war infantry and storm troop formations, the pioneers in SB:FWW do not break down any further than section size of 18 men (two squads). Their strength instead is in the large amounts of supporting assets (trench mortars and flame

[16] There were instances when Sturm-Btl.5 (Rohr) fought as a complete force, even when it did its sub components were still reorganized as needed depending on the tactical mission the battalion needed to accomplish.

throwers and a plethora of hand grenades). Users are urged to make their own scenarios with pioneers in small squads if they so desire.

# GENERAL NOTES

## *Field Guns, indirect and direct fire ammunition and reliability*

In the early period of World War I, every belligerent took to the field with a large number of artillery pieces that they called "field guns". These guns were rapid fire pieces, able to fire cased ammunition with a high degree of speed and accuracy. These guns were leaps and bounds ahead of the old Napoleonic muzzle loaded cannons, but they were employed in much the same way as those old pieces: massed in a battery of 4 to 8 guns (depending on the nationality) and fired open sights at enemy troop formations at range. However, the field gun's disadvantage was in the fact that it was not a high trajectory weapon, and as such it was incapable of true indirect fire that howitzers could achieve. Around 1916, this disadvantage was alleviated by modifications to the guns that allowed them a higher angle of elevation.[17] The problem at that point became that the gun caliber itself was too small at that point to do any real damage to entrenched enemy troops.

Although the field guns in the early period of the war lacked the ability to conduct true high angle indirect fire, some early war field guns had an ability to hit targets that they could not see, through a rather advanced system of clinometers, forward observers who signaled with colored flags or flares, and the use of shrapnel ammunition. Shrapnel ammunition was fired in the air above a target area and the shell would explode high in the air and rain down metal balls onto the ground below. Needless to say this type of fire was

[17] This was usually accomplished by a redesign of the gun's carriage (the 18-lbr Field Gun, for example, which initially had a pole tail, adopted variants that had both a box and a split tail to allow the breach to elevate further).

not exceptionally accurate, because the gunners usually only knew the azimuth and range to a target, and had to rely on forward observers to report the impact, if at all. In SB:FWW, some early war field guns have both shrapnel and high explosion (HE) ammunition and some only have HE. Generally speaking, HE ammunition is more deadly than shrapnel because it has splash damage capability and can devastate concentrated targets, but shrapnel allows the engagement of targets which are not in the direct line of sight of the gun.[18] In SB:FWW, HE should be used in situations where you have line of sight to large concentrations of enemy troops and shrapnel should be used in cases where there is no direct line of sight to the target (such as when line of sight is blocked by terrain features or your own infantry), or in cases when a line of sight to a singular target exist. This means that in SB:FWW the most important use of shrapnel ammunition is when your field guns can see the target, but they cannot fire HE *through* your own troops, since they can fire shrapnel *over* your troops instead. Beyond that, firing shrapnel ammunition blindly at enemy forces located behind obstructing terrain will subject the fire to scatter, and will likely be of minimal effectiveness since shrapnel ammunition is intentionally not given a splash damage radius in order to keep them from being as effective as true indirect fire weapons firing HE.

Also, field guns are unique in SB:FWW in that they have a reliability rating of "X". This ensures that no matter how many times these guns are fired, their status will not decrease. This was done to give these guns a historical strength: they were able to fire massive quantities of ammunition, ammunition which was usually in great stockpiles. It did not make sense to have field guns drop so quickly in effectiveness (even with A quality) in the scope of the scenarios in this game. Obviously the extremely long scenario of 1916-

[18] Note that the easiest way to know whether or not the gun is capable of indirect fire with its current ammunition load is by looking for an asterisk * symbol next to its fire value. The asterisk denotes that it is currently capable of indirect fire.

Verdun-01 is stretching the logic of this rationale, but even still, it can be understood that these types of guns had sufficient stockpiles of ammunition to the degree that only after a day of fighting would the ammunition consumption begin to tell. The only disadvantage to this approach is that it prevents field guns from being represented as being low on ammunition since, if their starting status is < 100%, then their status will gradually increase over the course of the scenario regardless of how many times they fire (due to the standard Rest % in the parameters file). So, to represent one side who might be low on field gun ammunition, the approach is taken to remove some guns of the battery / not represent the gun battery at its full compliment. The rationale here is that low quantities of ammunition would prevent all guns in the battery from being able to fire.

Needless to say, because of their reliability of "X", it behooves the user to fire field guns as much as possible during the course of a scenario, which is the desired intent of the game design decision.

## *Light Machine Guns, the use of*

In 1916 the Allied Powers began to employ man portable light machine guns (LMGs) in their infantry formations.[19] Once the LMG arrived on the battlefield, infantry combat began to drastically change. At that point a portable machine gun was available to move around the battlefield with relative ease, and to provide a base of fire where needed to pin

[19] Britain, France, Germany all adopted LMGs for infantry use in limited numbers in 1916-1917. France developed the Chauchat, Britain developed the US made Lewis Gun, and Germany developed the MG 08/15 (and the Russians imported LMGs). During 1916 on the Western Front, the French and British were innovative in that they were the first to fully incorporate the LMG. Initially the British and French fielded LMGs in limited numbers but gradually adopted them on a wide spread basis. The Germans did the same with the unimaginative and extremely heavy MG08/15, but only in small numbers in sturm companies (they did not widely adopt the MG08/15 until 1917: they were the last of the belligerents on the Western Front to do so). By 1917 both sides were using squad LMGs on a large scale on the Western Front.

and suppress the enemy while friendly infantry could maneuver into a position of dominance to assault with rifle, bayonet, and hand grenade. It was at this point that small unit tactics really began to develop.

In SB:FWW users may notice that all sides had their own ideas on how to employ LMGs. In almost every case the LMG was adopted as a separate team where they could operate independently of the a platoon or squad. Eventually the British, Americans, and French incorporated the LMG directly into the infantry platoon (which is the modern method), and the Germans preferred to keep them separate in LMG squads (although they would later integrate them into some infantry squads out of manpower problems).

The LMG in real life and in SB:FWW must not be looked at as a weapon whose primary use is to kill enemy troops. While the LMG can indeed eliminate enemy infantry, its best use is to lay down suppressive fire to pin and disrupt enemy infantry while friendly infantry squads maneuver into a position to assault the pinned and disrupted enemy. These LMGs should be used to lay down fire in this manner, pinning and disrupting the enemy in place, then after disrupting and/or pinning the enemy the LMG should shift its fire to good order enemy units (avoid continually firing on disrupted and pinned enemy infantry if there are good order enemy infantry within line of sight to the LMG). By doing this you will ensure that the LMG is used to its maximum effectiveness: as a pinning element.

## *Equipment, unique items*

Squad Battles series veterans may notice that SB:FWW contains some unique equipment that is not represented in other titles. This includes items like commander and platoon leader "kits", hand grenades, pistols (as firearms, not as assault items), regimental colors, and so forth. The reason that these equipment items exist in SB:FWW is to represent

a period of warfare where all of these items were not considered to be standard items on the battlefield or, of course, to represent unique items of the period that one side may have had a monopoly on at one time or another.

After the First World War, the hand grenade was a normal part of an infantry unit which, in other Squad Battles titles, might be represented in the infantry unit's assault rating. However, in SB:FWW, not all infantry have grenades, and even more importantly, platoon structure is usually such that only specific squads or sections in a platoon carried them.

A similar situation exists with pistols. Almost every officer in the First World War carried a pistol and no other firearm, so this too is uniquely represented in SB:FWW as an effective but short ranged weapon, rather than as an equipment item used only in assaults since, in SB:FWW, the pistol does not exist to supplement some other firearm that the leader carries -- it IS his primary weapon.

Commander and platoon leader "kits" in SB:FWW represent various items that a combat leader might carry into battle to help make tactical decisions. In the game, these items have an inspirational effect on the men since they represent items that were historically utilized to help better command and control the troops (the commander's kit has an added effect of functioning as a pair of binoculars for spotting). Keep in mind that the commander kit itself is not what inspires the men, what it represents is the acting leader who is inspiring the troops. The possession of the kit itself denotes who the acting leader is, whether it be carried by a leader or carried by a unit (in which case it represents an NCO/sergeant inspiring the men). All of this was unique during this time period, when small unit tactical command and control was something that was being developed from on the job experience in the nasty business of trench warfare. After the First World War, the

equipment in these so called "kits" became standard items on the battlefield carried by every squad and platoon leader, so much so that they deserve no special representation in other Squad Battles titles. However, in SB:FWW, these items help differentiate an evolving form of squad level warfare and, more importantly, they help provide the impetus needed to stormtroops. As an example, platoon leader "kits" are given to sturm infantry platoon leaders to help them maintain greater forward momentum of their men, and the kits themselves abstractly represent the fact that these small unit leaders were equipped and trained to work as independent small level leaders that acted on initiative and greatly inspired their men. These same sturm infantry platoon leaders are accompanied by a platoon sergeant / non-commissioned officer, which are also unique (in SB:FWW) to these units, and they also aid in providing a historical level of control of these unique infantry units.[20]

## *Flamethrowers*

In the First World War, flamethrowers were utilized as a weapon to help clear trenches. Before grenades were in great abundance, infantry had to rely on the rifle and bayonet to clear trenches. This had an effect to make the prospect of trench clearing very costly affair as there was no clear advantage in engaging the enemy in this way. Flamethrowers were utilized as a weapon early on to assist in clearing the trench by pushing the enemy out of them. No sane infantry man would remain in a section of trench when it was being showered with burning oil, so essentially it made a particular section of trench untenable to the enemy for a brief period of time, helping to throw the enemy back in

[20] While every infantry platoon during the First World War may have had a platoon sergeant, in SB:FWW the exclusive platoon sergeant in the sturm platoon represents a historical shift to the NCO becoming a tactical leader in these units, and they provide the sturm platoon the necessary additional leadership to help maintain forward progress.

disarray. The flame throwers themselves did not have a decisive killing effect on the enemy, rather, it was an effective demoralizing tool. In SB:FWW, the flamethrower has the demoralizing flag. When used on the enemy, it will demoralize them, making them easier to push back in an assault, and preventing them from moving forward without being rallied.

To be successful with the flamethrower in the trenches, use flamethrowers to demoralize the defenders in a trench hex, then save additional shots of the flamethrower for other hexes (do not continue to fire the flamethrower on the same hex). Assault the demoralized enemy units with other infantry and bring the flamethrower up to repeat the process. Needless to say, the defender should make the flamethrower a priority target.

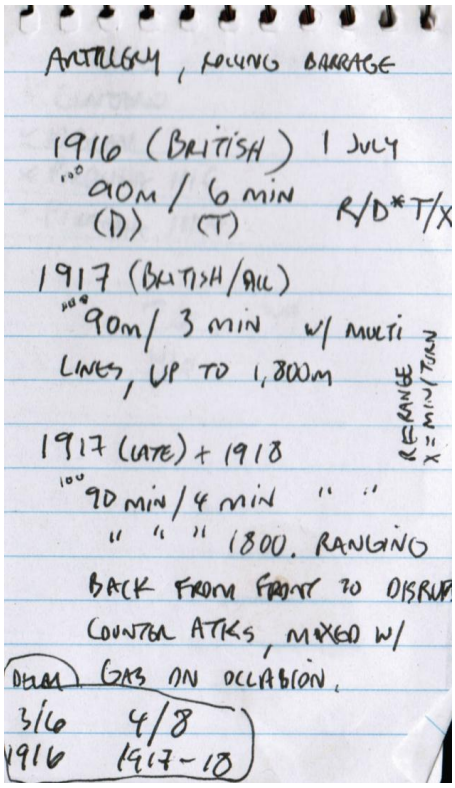
## *Ottoman / Turk Army, the usage of their name*

The first thing that should be said about the Ottoman Army, is that it's proper name is indeed the "Ottoman Army" and not the "Turkish Army", although the British official history and many other books consistently refers to them as a whole as "Turks" and the "Turkish Army". The Ottoman Empire existed until 1921, of which Turkey was a part of, and technically the "Turkish Army" did not exist until 1921 to the present. From 1914-1918, the Turks had units within the Ottoman Army, as there were also Arabs, Kurds, and Armenians to name a few. However, in reality any adversary of the Ottoman Empire seemed to fight Turkish troops and not a mixed enemy of "Ottomans" from all around the empire. As mentioned, the British consistently referred to the Ottoman Army as the "Turkish Army" or just simply as the "Turks" partially because of the popular usage of the term at the time. Another reason for the technically inaccurate term is because even though the large Ottoman Empire encompassed many peoples, it was the very capable Turkish soldier who comprised the vast majority of the army and when it came down to the terrible matter of fighting and dying for the empire: it was usually the Turkish soldiers that were relied upon

in this task.[21] Therefore, this document and wargame will refer to the army of the Ottoman Empire interchangeably as the either the Ottoman Army, Ottomans, Turkish Army, Turkish, or just simply "Turks" (as a short hand term). Although "Ottoman Army" and "Ottomans" is the most technically correct, all other names used are just as proper for the period and are used with the utmost respect.

## *Artillery, Rolling Barrage*

Artillery during the First World War was honed and developed into a powerful force. From 1916 onward, both sides relied upon the artillery arm to do most of the work in the trench warfare environment. While it is true that other tactics and equipment were developed to break the stalemate, the artillery was something that was already developed and present on the battlefield, the only thing that was required of it was for it to evolve into a force that would overcome the situation. To that end, innovations in artillery occurred during the war. One of the most successful innovations was not a technical change in artillery technology itself, rather it was a change in how artillery was applied. Interdiction barrages, protective fires, and rolling/creeping barrages were techniques that were developed to deliver artillery in an effective manner in the trench warfare environment. Of




**A scribbling used to calculate rolling barrage times in SB:FWW.**

[21] Erickson, Edward J., *Ordered to Die: A History of the Ottoman Army in the First World War,* Preface.

these, the rolling/creeping barrage was something that helped attacking forces break through entrenched enemy positions by walking a line of artillery fire into and through the enemy, while friendly infantry advanced close behind it to catch the enemy who would hopefully be pinned down or disrupted. The rolling barrage proved to be a successful tool in trench warfare, and it became even more useful with further refinement by 1918.

In SB:FWW, the rolling barrage feature is used extensively. In almost every scenario that it is used, the barrage that would occur on the first turn is understood to have fallen already, just before the scenario has started, and will continue to fall on the second turn. Most scenarios will mention this in the notes, and it is advised that you refer to the Rolling Barrage dialog to check where the lines start, so that you do not run under your own barrage on the first turn (usually the infantry are safely behind the barrage to the degree that moving forward at a moderate pace will not harm them, except by stray artillery shells of course). To determine the creeping rate of the barrage, a formula was devised based on plots of historical rolling barrages throughout the war.

## *Mark I-VIII Tank Guns, in line*

Tank experts have said that the French FT-17 tank was the first modern tank, having a centrally mounted 360 degree traversable turret. Other tanks of the period either had the maingun mounted in the front of the vehicle, or on the sides of the vehicle. This limitation is represented in SB:FWW by having all other tank's maingun(s) fixed "in line" so that they can only fire in the vehicle's frontal arc.[22]

[22] In other words, all non FT-17 tanks have their mainguns fixed in the front arc -- the FT-17 is the only tank that can fire it's maingun in a 360 degree arc.

It is true that the British Mark I through Mark VIII male tanks had their two QF 6 pounder mainguns mounted in the side sponsons, and they were capable of firing in a wide arc (in about a 180 degree arc), however, it makes more sense to fix these guns in the frontal arc because there is no intermediate restriction (it is either fixed in the frontal arc or capable of 360 degree fire) and fixing it to the frontal arc is the more correct approach between the two choices, and because, on the actual tank, only one gun could fire to either side at any one time. By fixing both guns forward, both guns are allowed to fire at a target when they really would have been able to do so. This approach for the Mark tanks is quite restrictive, but it is the lesser of two evils since it prevents the possibility of both guns being fired at a target located at one side or to the rear, neither of which would have been possible in reality.

## *Air Support, reconnaissance and airstrikes*

A great new feature introduced in SB:FWW is Random Support. Random Support allows artillery and air support to exist in the scenario that is beyond the direct control of the users. Combined with Rolling Barrages, Random Support helps represent a period of warfare where there was a disconnect between the commander on the ground and the supporting assets at his disposal.

In SB:FWW, Random Support is utilized to represent sporadic artillery support who may be operating by line of sight from some place well off the map. This is usually true with field guns in the early war, but it is also used with howitzers in some select cases. The majority of artillery support in SB:FWW is present in the form of a Rolling Barrage which proceeds forward on a fixed schedule, or on call batteries through the use of a fixed field phone (a.k.a. land line). In the late period of the war, the latter is usually the case for the defender through a procedure known as "protective fire", and because, in the game, line of

sight to target in this case is usually non-existent, this form of artillery support is intentionally inaccurate. The former is usually a method of delivering artillery utilized by the attacking side in the middle to late period of the war.

While artillery is delivered in SB:FWW in a variety of methods, air support is exclusively handled as Random Support. This is because there was no reliable way to precisely communicate with aircraft during the period, until the invention of the radio after the war. Bombing and strafing may occur in a vital place and time during the scenario, or it may be a non-factor: chance plays a large role here. Through the use of another new rule added in SB:FWW (region spotting), air support is also present in the form of aerial reconnaissance. While it is certainly true that information gathered in a reconnaissance flight during World War One would require a great deal of time before that information was disseminated to the commander on the ground, it is well documented that aircraft would often provide information to troops in the area through the use of dropped messages, wing movement or colored flares. This information may not have been so detailed as to point out specific numbers and locations of squads and teams of men, but it is understood that aerial reconnaissance is a grand abstraction in SB:FWW, something that provides some random and, in some cases, unreliable intelligence to the user through the use of primitive signals (hence the relatively small spotting radius).

## *The Tank, Airplane, Stormtroop and the Evolution of War*

A special note must be made of the contributing factors in the evolution of warfare from "the old way" to modern warfare. In no way is SB:FWW meant to suggest that German Army's development of small unit tactics was the single most important evolution in warfare during the First World War. On the contrary, although the creation of small unit tactics were a vital evolution in warfare, it was still only part of the puzzle. The German

Army relied almost entirely on raw manpower and tactical innovations to achieve final victory and, because of that, any successful offensive would still require an enormous expenditure of lives. In the final German offensive of the war, Kaiserschlacht, what appeared to be the German Empire's greatest success actually turned out to be their worst failure; too many lives were expended in the final offensive and, although the territorial gains were vast, a final crushing victory was not achieved. Thus, the German Army was, at long last, brought to the brink of exhaustion by its own hand.

Where the German Army strove for a tactical solution to the stalemate on the Western Front, the British and French Army strove for a technical and materiel solution in the form of the tank. The tank achieved great successes by the end of the war, so much so that the German Army hastily adopted their own and pressed captured British tanks into service and, at any given time, they actually employed many more captured machines than their own A7Vs. However, with all of its success the tank also was only another piece of the tactical puzzle. Modern warfare, in its purest sense, was not yet born until the eventual post war 1920s and 1930s pairing of the tank with the German tactical way of thinking. Thus, during the First World War, both sides had independently created the two most vital interlocking parts necessary for modern warfare, and by the war's end it happened to predominantly be materiel that carried the day.[23]

## *Berserk Charge feature, the lack of*

Early on in the design process of SB:FWW, it was felt that the Human Wave feature should be present, at least in 1914 scenarios. However, once more tactical data was

[23] That is not to say that innovations in artillery and aircraft did not also play a vital part in breaking the stalemate and that they too were necessary elements of modern warfare, but the point is that both sides contributed vital elements to ensure that the costly "siege warfare" form of warfare would never again reign supreme.

researched, it was decided that the Human Wave feature that is used in other Squad Battles titles, such as *Squad Battles: Pacific War* where the Human Wave is used to represent Banzai charges, was not something that should be utilized in SB:FWW. During the First World War, even in the earliest periods, infantry utilized a modern technique of fire and movement very similar to the individual movement techniques of modern infantry. The First World War infantryman would lay prone and fire on the enemy, then stand up and bound to the next bit of cover, typically while being supported/covered by other elements. At no time did any army of World War One, at least not on a wide spread level, practice a policy or tactic that could be compared to a true World War Two era samurai like Banzai charge of Japanese infantry, or human wave charge of Soviet infantry driven forward by Commissars. Instead, in SB:FWW, the approach was taken to introduce Inspirational Weapons which act as a device to inspire the men forward in the early scenarios, sort of a middle ground between utilizing the Berserk Charge feature and not having any forward driving mechanic at all. See the User Manual for more information about Inspirational Weapons.

## *Map artwork changes and improvements (unit "tabs")*

During the development of SB:FWW, it was quickly realized that given the massive amounts of units in each scenario, something had to be done to cut down on frustration from the inability to look at the map and quickly ascertain the status of stacks of units. Looking at a map in SB:FWW, which in many cases may contain over 100 units, and not being able to tell what units in a stack are pinned or demoralized unless you looked at each one, caused frustration and tedium which bordered on insanity. Having used Andrew Glenn's (aka. "IronX") excellent graphics mods in the past, his innovative "tabs" artwork helped to inspire the creation of very similar tab type informational icons which are used in

SB:FWW and retrofitted to other Squad Battles titles.[24] The "tabs" idea eliminated all frustrations in SB:FWW, and plays a very helpful role in other Squad Battles titles as well. A special thanks to him and all the other modders in the community for coming up with great ideas such as this.

[24] Unfortunately, due to my own mistake, given how long SB:FWW was in development (several years), these tabs actually made an appearance *before* SB:FWW was fully completed and before this notes document was able to credit him.

# GAMEPLAY TIPS

## *Turn Off Dropped Weapon Counters (to de-clutter the map)*

In SB:FWW, there are lots of units on the map in almost every scenario. When these units suffer casualties, they will drop weapons. It doesn't take long for all of these dropped weapon counters to fill up most of the map, thus making it difficult to see the map itself. If you find the dropped weapon counters distracting, then you have several options on how you want them to be displayed. In the top level "View" menu, select "Weapons Off". This feature will toggle the dropped weapons between three different settings. With "Weapons Off" not selected then the dropped weapons will appear as their normal icons. When you select "Weapons Off" the first time, these dropped weapons will instead appear as hollow black boxes showing only the outline of the dropped weapon counter. However, if you select "Weapons Off" a second time, then dropped weapons will not appear as map counter type icons and will instead only show the weapon graphic only. This particular third "weapon graphic only" setting was introduced specifically for SB:FWW and is the game designer's personal favorite setting, as it both de-clutters the map while at the same time still showing the small weapon graphic on the ground.

## *Early Period Warfare (1914-1915)*

Between 1914 and 1915, the scenarios in SB:FWW will play out much differently than those of late war and those of other Squad Battles titles in the series. In the early war years, the units consist primarily of very large half platoons equipped only with rifles (hand grenades do begin to make an appearance in 1915 however). For these early war scenarios, it may seem like a mindless slaughter. The tools that must be successfully utilized in the early period are the machine guns, field guns (if available) and, most importantly, motivator

weapons like commanders kits and battalion/regimental colors. Utilize the machine guns and field guns to pin the enemy in place, then maneuver your rifle units to overrun the enemy's position. Keep the commanders in the right place to keep the attack pushing forward, and keep the colors in line of sight of the main push to keep them moving forward; always use the colors in the focal point of your main push. The colors will naturally draw a great deal of attention from the enemy so you should have units ready to pick it up if it falls (use the color guard for this task first, then use spare infantry units if the color guard falls as well).

## *Trench Warfare (1916)*

Trench warfare, primarily in 1916 but also in 1917 and 1918, is a difficult task to be successful at. The very act of advancing across the open to an entrenched enemy is nearly suicidal. However, the key to being successful in Trench warfare is to maintain your momentum. If you forces get pinned down in No Man's Land, then they will gradually be killed off.

In order to maintain forward momentum, you must first take the best possible route to the enemy's trench. Usually the "best route" is a path that takes you from shell crater to shell crater, that is to say a path that jumps from CRATERED hex to CRATERED hex. These cratered hexes are caused by artillery fire and they offer decent protection, more protection than other Squad Battles titles simply because the massive amount of artillery used during this period created very extensive craters. The next best thing to do is to utilize smoke if you have it. Drop smoke rounds on enemy machinegun positions to lessen the effectiveness of their fire, and put smoke on any other strongpoints as well. Once smoke is placed on these places, do not bother with firing on these areas unless you are using indirect fire (such as trench mortars), otherwise your own fire will also be mostly ineffective. Drop chemicals

(gas) on enemy machine gun positions and strong points, and try to avoid the chemical hexes as much as possible yourself, since entering those hexes will degrade your unit's performance. Drop chemicals on enemy rear areas and communications trenches, in order to slow and disrupt any enemy attempt at reinforcement or counterattacking of the front line positions.

When crossing No Man's Land do not bother with engaging targets, unless you have some infantry designated to provide a base of fire to advancing forces, otherwise it is always better to keep moving forward, rather than lay around in No Man's Land and exchange shots with the entrenched enemy. If you do have a support by fire or base of fire contingent, it can be important to lay down fire on the entrenched enemy units, if only to pin them down or draw fire while the assault force advances. Your main gain in this role should be only to pin the enemy units, and then shift fire to the next enemy unit, since pinned units exert less firepower on your advancing forces. Also, the intelligent use of leaders is vital to maintaining forward progress across No Man's Land once units start getting pinned down.

Once you have reached the enemy's trenches, jump in wherever you fit in! This might sound obvious, but you should try to squeeze into enemy trenches wherever you can, between enemy units if possible. This will take the fight into the trench, and will divert fire from your forces that are still crossing No Man's Land. Once you are in the enemy's trenches in force, you should start rolling it outward from the entry point, clearing the way for additional forces to enter. Remember that once you are in the trenches, the trenches themselves will offer much less protection to opposing units that are adjacent in the same inline trench; use this to your advantage to roll up the trench, especially with a liberal use of hand grenades. Also, once in the trench try to stay in the trench. Use the trench network to

move around, utilizing communication trenches as much as possible to avoid enemy ranged fire and to speed your movement through obstructed terrain.

On the defensive, a successful defense of an entrenched position lies in how successful you can stop the enemy's forward momentum. Do this by laying down direct and indirect fire on the advancing enemy. This is obvious, but what is not obvious is that you should only lay down fire on the largest enemy units until you pin them in place. Once you do this, shift your fire to other non-pinned units until they are pinned down. Once all visible enemy units are pinned, shift you fire to enemy units that are closest to your trenches and/or the largest stacks of enemy units. Use snipers to eliminate enemy leaders which can have a great effect on stopping the enemy advance, that is to say once the sniper takes out a leader, and the enemy's units are pinned then they will have no way to rally them until they naturally recover or until the enemy brings another leader over to those pinned units (which will probably take vital time, and will allow you to eliminate more enemy troops as they are pinned in place). Lift and shift fires in this manner accordingly to create a vicious killing zone in front of your positions. Just remember that keeping most of the enemy pinned in the open is "good enough" to break up most attacks, because doing this may allot they enemy too few unpinned units to effectively assault into your trenches.

If the enemy makes it into your trenches, try to counter attack with whatever is available to throw them back out of it. If this is not possible, then fall back along the trench and attempt to stay at least two hexes away from the enemy. Keeping your distance will keep you out of grenade range, force the enemy to move into you thereby triggering opportunity fire at close range, and their units will be more vulnerable in the trench since they will be adjacent. Use grenades to help you pin the enemy down in the trenches and, if possible, avoid using grenades if the unit carrying them is pinned or disrupted, since they

will have a lesser effect on the enemy. Also, remember to pick up enemy grenades if they are dropped in the trench (from being eliminated and pushed back) and use them on their own units and or, at the very least, keep them from picking them up to use them again.

## *Late Period Warfare (1917-1918)*

The late period of the war, from 1917 and 1918, is probably the most exciting point of the conflict from a wargaming point of view. It is as this point when modern methods of warfare were now being utilized, be it the innovative small unit tactics of the German stoßtruppen, the heavy use of chemical agents, and the integrated use of advanced weapons systems like tanks, aircraft, rolling barrages, smoke, and heavy infantry support weapons. At this point in the war, the resemblance to modern warfare begins to take shape, and veterans of other Squad Battles titles will most likely feel more at home.

Relatively little needs to be said about how to be successful at this point, the tips about trench warfare in 1916 still apply here, but the difference is that by 1917 and 1918 there are more tools available to help overcome the enemy's position. Mobility is key to maintaining the momentum in the attack and the new tools and weapon systems should be used to mass overwhelming firepower on points of enemy resistance.

## *Allow an Open Egress Route (to an entrenched enemy)*

If you are attempting to push the enemy out of or back into the trenches, then you need to always be sure to leave a retreat route open to them (do not surround them on opposite sides). This may seem counter intuitive, but leaving a retreat route open will actually make it easier on your own troops as they will be able to push the enemy back and out of the entrenched areas, thereby making them more vulnerable later, and keeping your own units from getting Pinned from repeated assaults against isolated enemy. Often, if you

surround an enemy unit then they will fight like lions because you force the enemy to hold to the last man. However, with some careful planning you can leave certain escape directions open, and you will be able to influence the enemy's direction of retreat to the point where you can force them out of the trenches and into the open in the direction you want them to go. One example of this is to leave an egress route to the enemy that causes them to completely leave the trench line, by blocking his route along his own trench. If you have friendly units arrayed in such a way that the enemy cannot retreat back along his own trench network like this, then he will be forced out of the trenches where you can then fire on them with greater effect and, hopefully, demoralize them quickly.

## *Tanks, the effective use of*

Tanks begin making their appearance in 1916, and their proper use in SB:FWW differs a great deal from other titles in the series and may take some getting used to. For the most part, think of the tank as a bulldozer; although it is armed with weapons, its primary purpose is to overrun a position and dislodge the enemy. Like a game of chess where both sides look for a weak point in a chain of pawns, to use a tank properly in SB:FWW you must first identify the strongest points of resistance that pose the greatest threat to your advancing friendly troops. These strong points usually consist of heavy machine gun nests, especially those that are "setup" with effective fields of fire. Once you have located these positions, drive the tank straight for them, do not stop, do not waste time firing at anything. If possible, avoid craters as these slow you down greatly, but always try to keep your front towards machine gun nests because they are powerful enough to kill most tanks in the flanks and rear with repeated fire. When you reach the enemy's position, if all of the enemy units are in good order then you may fire a couple of times on the defenders with all guns until at least one enemy unit is disrupted or pinned. That said, assaulting should be your

primary method of weakening the enemy position so you should assault them as soon as possible even if the defenders are not disrupted or pinned if you cannot spare the time to weaken them first, and continue to assault them each turn (assault three times each full turn you are next to the enemy) until either you overrun the position, or your tank is destroyed. This may sound counter intuitive, and the tank will certainly be greatly weakened and vulnerable after it takes said position, but by doing this you crush or greatly diminish the strongest points in the enemy's defensive line, thus making it much easier for friendly infantry to approach and break into the trench.

After the enemy is dislodged into the open, the tanks have a couple of options. First you must evaluate your tank's condition and determine whether or not it should be aggressive (~Status > 50%) or cautious (~Status <= 50%). If caution is preferred, the tank should remain in place and open fire on the enemy with the tank's weapons systems, and wait until the friendly infantry move forward to take the tank's place (which is presumably now sitting in a trench, bunker or pillbox hex). Prior to the infantry catching up if aggression is preferred, or immediately after, the tank can turn 90 degrees and "roll up" a section of trench that may be occupied by weaker forces, thus making more room for follow on troops (this is actually a historical tactic), while other tanks continue forward to second line positions, paying special care to trenches that connect the first and second lines so as to block enemy attempts at reinforcement. Friendly infantry, now filling the trench, can move along the trench and use it against the enemy, moving adjacent and firing on the enemy at much greater effectiveness. Once the enemy is out in the open they are easy pickings for either friendly troops now inside their old trench or friendly tanks that are not advancing.

By doing all of this you can ensure that the tanks are able to roll over the strongest points of enemy resistance, so that your infantry can actually make it up to and into the

enemy's fortified positions so that they can take over from there. Anything beyond this point is a luxury, tanks that are still in decent condition after the assault on the first line should continue forward while weakened tanks stay behind for mopping up and fire support.

## *Gas (chemical weapons), the effective use of*

Gas is a double edged sword which requires careful consideration before using. In SB:FWW, gas causes disruption when used on a unit that currently is not equipped with a gas mask (or when a gas cloud drifts into a unit without a gas mask). The interesting thing about gas is, it is the gas mask that keeps the unit safe but it is also the gas mask itself that penalizes the unit's capability. Once gas masks are on, the unit fires less effective, moves slower, and leaders have a more difficult time at rallying. Because of this, the most effective use of gas is on enemy rear areas employed in such a way as to hinder them from quickly reinforcing an area or from laying down effective supporting fires. The second most effective use of gas is on enemy strong points that you plan on bypassing. To be successful in SB:FWW, you have to recognize that there are some enemy positions which do not need to be surmounted. Those positions can be allowed to exist while you bypass on to the objectives as long as you can negate their firepower by either using gas or smoke on them, or by pinning them. The least most effective use of gas is using it where both friendly and enemy units are in close contact, however, you may often need to use gas in this way in order to clear a path through enemy defenses. For example, late in the war grenades and grenade bundles are relatively abundant for some units. You may choose to use gas in close proximity to your forces as a way to reduce the effectiveness of the enemy allowing you to safely move in close with grenades. Once you overwhelm the enemy with grenades and pin them in place, you are free to assault into their position and push them back, then move

through the gas cloud. This method is an effective way to punch a hole in a trench. In this situation you should gas the smallest sized area possible to accomplish their immediate objective.

Finally, keep in mind that your own advance will slow down dramatically if you are forced to move through gas, especially if it is in a heavily cratered / devastated area. Once you overrun the enemy defenses and once you start moving towards your next objective, if any, you should take the shortest path out of the gas cloud and remove the gas masks as soon as possible so that you can resume an effective attack.

## *Keep Up the Fire!*

This might seem self explanatory but the devil is in the details: keep up the fire on the enemy. Laying down good suppressing fire is the key to any attack and defense, and suppressing the enemy to either Disrupted or Pinned status will slow or halt an attack or can cause a defense to deteriorate and crumble. However, what is not self explanatory is that while you are placing fire on the enemy, even though you may not be causing losses, status level reduction, pinning, disrupting, or demoralizing your enemy, you still prevent the enemy from resting and recovering status to themselves and their weapons. This can be critical in breaking a defensive position; placing sustained fire on key positions and machine gun nests can nullify their effectiveness over time. To counter this the enemy units under sustained fire must hold their fire to keep their weapon status from undesirably getting reduced from their own opportunity fire so they can be effective for the "right moment", or they must move away to be able to hide and rest, or a combination of both as well as rotate troops out of those pressured positions. The long term effect is that fire from these key positions and weapons will have to lessen, or they will have to move away/fall back entirely or else they will cease to be much of a threat.

## *Inspire Your Troops*

Do NOT underestimate the effectiveness of inspirational weapons; using inspirational weapons smartly is the key to success in SB:FWW. Inspirational weapons are new to the Squad Battles series, and as mentioned above, these usually consist of company commander "kits", which are all the tools and devices needed to effectively lead men in combat during the First World War (ie. map, compass, whistle, binoculars) and regimental banners.

The key thing to remember about inspirational weapons is that the unit equipped with weapon must be seen by friendly units in order to inspire them, and the unit carrying the weapon must NOT be "On Ground". The best use of inspirational weapons is to place them in "hot spots" where you want to concentrate the main assault on the attack, or hold the key points of a defense. In the case of a regimental banner in the early stages of the war, you simply want to place it in a central and well visible area. In the case of commander kits which have a very small inspirational radius, you want to be in with the action. In built up terrain like forests and towns, you should simply try to keep a commander kit equipped unit one hex behind the front line. Keeping the troops inspired will allow them to take more punishment which translates to being more stubborn on the defense and carrying increased momentum on the offense.

# CONCLUSION

This work is my feeble attempt to contribute to the memory of the First World War, and to honor the millions that gave their lives during this conflict.

Squad Battles: First World War only scratches the surface of this conflict; many battles are left unexplored, and many maps included in the title are unused but provided for the community to make their own scenarios.[25] It is my hope that this work be used as a tool kit to make additional scenarios to share with others for the betterment of the war gaming community, and to maintain the memory of the First World War as a whole. I encourage you to use the order of battle templates and maps and create your own scenarios and campaigns and share with others.

If you enjoy this war gaming topic, be sure to check out the battalion level First World War Campaigns series (France '14).

Courage Conquers!
06 July 2011

Edward L. Williams
volcano@esimgames.com

[25] Passchendele, Mezy, Soissons, Villers-Bretonneux and Beersheba are either completely or mostly unused and are waiting to be explored.

# BIBLIOGRAPHY


Aspinall-Oglander, C. F. *Military Operations: Gallipoli, Vol. I.* Nashville: Battery Press, 1992.

Aspinall-Oglander, C. F. *Military Operations: Gallipoli, Vol. II.* Nashville: Battery Press, 1992.

Banks, Arthur. *A Military Atlas of the First World War*. Heinemann Educational Books Ltd, 1975.

Bonk, David. *Campaign Series #177: Château Thierry & Belleau Wood 1918.* Osprey Publishing Limited, 2007.

Cron, Hermann. *Imperial German Army 1914-18: Organization, Structure, Orders-of-Battle*. Tras. C.F. Colton. Helion and Company, 2006.

Drury, Ian. *Warrior Series #12: German Stormtrooper 1914-1918.* Osprey Publishing Limited, 1995.

Edmonds, Sir James E. *Military Operations: France and Belgium 1914, Vol. II*. Nashville: Battery Press, 1995.

Erickson, Edward J. *Ordered to Die: A History of the Ottoman Army in the Great War.* Greenwood Press, 2001.

Fuller, J. F. C., *Tanks in the Great War: 1914-1918*. Nashville: Battery Press, 2003.

Gray, Randal. *Campaign Series #11: Kaiserschlacht 1918.* Osprey Publishing Limited, 2002.

Gudmundsson, Bruce I. *Stormtroop Tactics: Innovation in the German Army, 1914-1918*. Westport: Praeger, 1995. [Kindle version]

Haythornthwaite, Philip J. *Campaign Series #8: Gallipoli 1915.* Osprey Publishing Limited, 1991.

Intelligence Section, Cairo. *Hand Book of the Turkish Army 1916*. Nashville: Battery Press, 1996.

Johnson, Thomas M. and Pratt, Fletcher. *The Lost Battalion*. Bison Books, 2000.

Jünger, Ernst. *Storm of Steel*. Tras. Michael Hoffman. New York: Penguin Books Ltd, 2003.

Lomas, David. *Campaign Series #58: First Ypres 1914.* Osprey Publishing Limited, 1998.

Rommel, Erwin. *Attacks*. Athena Press Inc., 1979.

Thomas, Shipley. *The History of the A.E.F.* Nashville: Battery Press, 2000.

Turner, Alexander. *Campaign Series #187:Cambrai 1917.* Osprey Publishing Limited, 2007.

Turner, Alexander. *Campaign Series #151: Vimy Ridge 1917.* Osprey Publishing Limited, 2009.

von Sanders, Liman. *Five Years in Turkey.* Nashville: Battery Press, 2000.

///////NOTHING FOLLOWS///////