GREAT WAR BATTLES
VOLUME
2

Exclusive Rules

TANKSCHLACHT

CAMBRAI 1917

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REVOLUTION
GAMES

FEAR NAUGHT

Tomorrow the Tank Corps will have the chance for which it has been waiting for many months – to operate on good going in the van of the battle. All that hard work and ingenuity can achieve has been done in the way of preparation. It remains for unit commanders and for tank crews to complete the work by judgement and pluck in the battle itself. In the light of past experience I leave the good name of the Corps with great confidence in your hands. I propose leading the attack of the Centre division.

Hugh Elles,

B.-Gr.

Commanding Tank Corps

19th November 1917

The Royal Tank Regiment was formed in 1916, following the invention of the tank. In 1917, it was retitled as the Royal Tank Corps and fought at Arras, Messines, and Passchendaele but it was on November 20, 1917, that it truly saw its glory as a fighting machine. Along with new predetermined artillery tactics, tanks cut through the wire and trenches to break through the Hindenburg Line. Yet 10 days later, a German counterattack employing new infiltration tactics retook much of the lost ground.

Liddell-Hart's The Tanks Volume I (p108) attributes the unofficial motto to Fuller and quotes it as "from mud, through blood, to the green fields beyond."

16.0   INTRODUCTION

Tankschlacht is a brigade/regiment level simulation of the Battle of Cambrai, November 20 – Dec 3, 1917. Players assume the roles of the commanders of the German and Allied troops as they desperately fight for this valuable position in the line.

17.0   COMPONENTS

Each copy of *Tankschlacht* includes the following:

- 1 series rules booklet,
- 1 exclusive rules booklet,
- 1 22" x 34" map,
- 2.5 sheets of 5/8 counters
- 5 player aid cards
- 1 Game Box or Ziploc Bag

A six-sided dice is also needed for play and is provided in boxed versions of the game.

17.1   The Rules Booklets

The rules booklets (general and exclusive) contain all the rules required for play. Rules are structured to follow the sequence of play. They are numbered with cross references to related rules used throughout the text.

17.2   Map

The mapsheet shows the Cambrai battlefield in 1914. A hexagon grid has been superimposed to regulate the movement and positions of troops. Map scale is 1200 yards per hex.

17.3   Counters

The counters represent the combat forces on each side and markers used to facilitate the flow of the game. Counters are described on the players' aids.

The markers are used to denote important features in play. See the player aids for list of markers.

17.4   Playing Aids

Provided with the game are 5 player aid cards. These sheets should be kept at hand during play.

18.0   SERIES RULES

All series rules are in effect. Certain rules have been updated for Volume 2:

- Canal rules are broadened (see 7.3, 18.3),
- Harassing Fire (see 8.0) is now resolved on the Fire Combat Results Table (see 19.1.5)
- Cavalry may dismount and mount (see 13.3),
- Counterbattery results (see 13.4) are now applied as levels of disorganization; each level of disorganization reduces the fire combat strength of affected artillery by 1 (see 19.1.2).

18.1   Stacking

Stacking restrictions are managed by stacking points with a limit of 4 stacking points per hex. Stacking points are printed on each counter. ***Note: units from different divisions are allowed to stack and defend together. This will mostly be limited to artillery regiments, tank battalions and stoßtruppen (together with infantry) as infantry units are too large to stack together.***

18.2   Divisional/Corps Restrictions

Attacks may only include units from a single division. Units from the same division may attack a target hex from one or more hexes. Barrages may only include artillery units from a single division and/or German independent artillery unit and/or corps artillery (see 6.0, 6.3, 7.2, and the Artillery Mission Chart).

Defending units may call on defensive fire support from an artillery unit of the same division within range of the defenders.

As independent units (see 13.6), German independent artillery, stoßtruppen and British tanks (see 18.9, 19.6, 19.7) are exempt from divisional combat restrictions. They may be attached to any division, allowing them to stack together, participate in attack, and provide or receive divisional artillery support or barrage.

18.3 Canals (wet and dry)

Zones of control do not extend across unbridged canal hexsides (see 7.3, 10.0).

Lines of communication that cross unbridged canal hexsides are limited to hexes adjacent to the opposite, unbridged canal bank (see 12.1)

Infantry, dismounted cavalry and stoßtruppen units (see 13.3, 19.6) may cross an unbridged canal hexside if they begin the Movement Phase adjacent to the hexside.

Units cannot cross a canal hexside (including a bridged hexside) if both hexes (hexes moved from and to) are adjacent to enemy units (i.e., as if moving directly from one EZOC to another were the canal not there); otherwise, a unit can cross a canal into or from an EZOC.

Units cannot retreat across an unbridged canal hexside (see 6.4.2). Units retreating across a bridged hexside are unaffected by the crossing restriction due to adjacent enemy units stated above.

Infantry, dismounted cavalry and stoßtruppen units (see 13.3, 19.6) may attack across unbridged canal hexsides (wet and dry) but their melee combat strength is halved (see 6.4, 7.3). Tanks may not attack across such hexsides. A -1 modifier per unit is applied to defensive fire for any units are attacking across a canal hexside (with no relief when using rolling barrages, see 19.1.7). A unit may cross a canal to attack across the open if covered by a rolling barrage and it did not begin the phase adjacent to an enemy unit.

Mounted cavalry or tanks units cannot move or attack across an unbridged canal hexside (see 13.3, 19.7).

18.4 Forced March

Forced marches (see 7.5) are limited to pre-battle friendly terrain (for the British, west of and including their November 20 frontline trench; for the Germans, east of and including their November 20 frontline trench). The entirety of the forced march movement must be in pre-battle friendly terrain.

18.5 Rail Movement

Rail movement (see 7.6) is limited to the arrival of German reinforcements. There is no limit on the number of units that may arrive entrained.

18.6 Zone of Control

Units can move directly from one EZOC hex to another when following a friendly main trench hex (i.e., from one friendly main trench hex to an adjacent friendly main trench hex through a hexside connected by the same friendly main trench). This applies only to movement and not retreat.

Main trenches do not cross canals so units may not use this rule when crossing a canal while adjacent to enemy units. (see 18.3).

In addition to Artillery, Headquarters, stoßtruppen and British tanks have no zones of control (see 19.4, 19.6, 19.7).

Tanks and stoßtruppen do not contest EZOCs for movement purposes (see 10.2).

18.7 Line of Communications

Lines of communication (LOCs) are traced 12 hexes at most to a friendly board's edge or 12 hexes to a headquarters with a line of communications of unlimited length to a friendly board's edge.

Friendly board's edges are for the Germans the eastern board's edge or to a northern or southern edge hex east of the most forward friendly trench hex (inclusive); for the Allies the western board's edge or to a northern or southern edge hex west of the most forward friendly trench hex (inclusive) (see 12.1).

Lines of communication can follow friendly main trench lines through uncontested EZOCs (see 10.1).

18.8 Demoralization

There is no series rules 3.6 Demoralization, in this game.

18.9 Corps Artillery

British and German corps artillery are represented by artillery parks centered around headquarters (HQ) unit on the map. Each headquarters is represented by a box on the map for the Germans and on the player chart for the British. The range of the off-board artillery is counted from the HQ unit on the map to the target hex. Flip the artillery counter in the box over to its "Fired" side to show that it has fired. All artillery markers are flip back to their front side at the end of the Coordinated Combat Phase.

18.10 German Independent Artillery
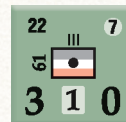
German Independent Arillery are German field artillery regiments (FAR) sent as reinforcements from neighboring divisions. *These units do not a have division ID, just a regimental ID on the left side of the Artillery symbol.* These units act as independent artillery units, unattached to a specific division. They act as divisional artillery, providing barrage and defensive fire (see 6.2, 6.3) to any division within range involved in combat. They may be combined with each-other or the Artillery of the division they are assisting. They count as divisional artillery on the artillery mission chart. This means they can combine with Corps artillery for rolling and standing barrages.

19.0   SPECIAL RULES

19.1 Artillery Missions

Artillery tactics developed over the course of the war. To capture this, the following artillery missions are now available to the players. A list of missions and the type of artillery capable of conducting the mission are shown on the Artillery Mission Chart.

Artillery missions are conducted during the Coordinated Combat Phase (exceptions: defensive fire and barrage using Stoßtruppen or Tanks in the Hasty Combat Phase, and Harassing fire is conducted during the opponent's Movement

Phase). Each mission is resolved on the Fire Combat Results Table (exception: Interdiction). Each mission has a separate column heading on the chart.

Note: a target hex or unit (depending on mission) can be barraged only once per phase, except when artillery units fire Antitank, Interdiction (see 19.1.1, 19.1.6) and defensive fire support (see 6.1.1).

19.1.1 Antitank Barrage: during the German Coordinated Combat Phase, the German player divisional artillery, independent artillery, may conduct anti-tank barrages, targeting opposing tank units within range. Each result is a tank step loss. *Note: Tank units do not benefit from a Trench (19.7.4).*

Artillery units firing at tanks must have an unblocked line of sight to the target unit (see 13.7). Each artillery unit fires independently. *Note: non-tank units in the target hex are unaffected.*
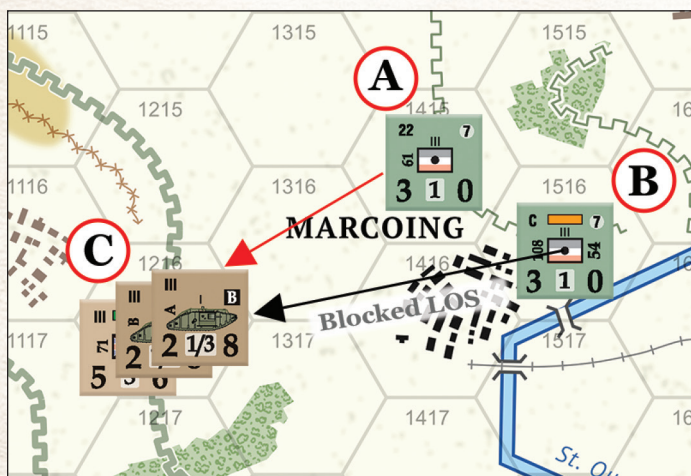
Example: The German 61st Artillery (German Independent Artillery) **A** *and 108th Artillery of the 54th Division* **B** *want to conduct Antitank fire on the British units* **C**. *The German Artillery must have a line of sight (LOS) to the hex and cannot combine their fire. The German Artillery* **C** *does not have an LOS to the hex as hex 1416 blocks.*

The German Artillery **A** *has a vailid LOS and fires. The British units are in a main German trench which is treated as a secondary trench (19.9) but because these are Tank units, they get no modifier (19.7.4). Referencing the Fire Combat Results Table and using the "Antitank" line and the 3 barrage strength column, the German Player rolls a 2 which results in a "1". The British Player removes 1 tank unit and places it in the British Units Destroyed box on the player card.*

19.1.2 Counterbattery Barrage: during the Coordinated Combat Phase, the phasing player's corps artillery may conduct counterbattery barrages, targeting opposing artillery units within range. Multiple artillery units, including from other corps may be combined. Each result is a level of disorganization. *Note: tanks and stoßtruppen are not artillery and cannot be targeted for counterbattery.*

If any of the artillery units firing at the target do not have an

unblocked line of sight to the target unit, +1 is added to the die roll, in addition to any terrain modifiers (see 13.7). *Note: non-artillery units in the target hex are unaffected.*

19.1.3 Defensive Fire: defending units may call on defensive fire support from one divisional or one German independent artillery unit within range of the defender's hex (see 6.3.1, 18.9) *Note: this is the traditional use of artillery in defense as described by the standard rules (see 6.3).*

19.1.4 Drumfire Barrage: during the Coordinated Combat Phase, the phasing player's corps artillery may conduct drumfire barrages, targeting opposing infantry/cavalry units within range. Multiple artillery units, including from other corps may be combined. Each result is a level of disorganization. *Note: artillery and tank units in the target hex are unaffected.*

If any of the artillery units firing at the target do not have an unblocked line of sight to the target unit, +1 is added to the die roll, in addition to any terrain modifiers (see 13.7).

Hexes targeted by drumfire may not be attacked by melee in the same Coordinated Combat Phase.

19.1.5 Harassing Fire: during the Movement Phase, the non-phasing player's divisional artillery, and German independent artillery may fire at enemy units in March Order or Entrained as they are moving (see 8.0). The units must be in range. Multiple artillery units from the same division and German independent artillery may be combined.

If any of the artillery units firing at the target do not have an unblocked line of sight to the target unit, +1 is added to the die roll, in addition to any terrain modifiers (see 13.7).

19.1.6 Interdiction Barrage: during the Coordinated Combat Phase, the phasing player's corps artillery may conduct interdiction barrage. Each artillery unit fires independently.

Roll one die, if the number rolled is less than or equal to the bombardment strength of the firing artillery, the target hex is successfully affected. Place an Interdiction marker in the affected hex.

Interdiction doubles movement costs in and adjacent to the target hex. Units cannot conduct march order, forced march or rail movement into or adjacent to an interdiction marker (see 7.4, 7.5, 7.6). Interdiction markers remain in place for one complete game turn (until the phasing player's next Coordinated Combat Phase). *Note: unlike battle markers, interdiction markers provide no benefit to defense in melee. Effects of overlapping interdiction and/or battle markers are not cumulative.*

19.1.7 Rolling Barrage: during the Coordinated Combat Phase, the phasing player may barrage target hexes within range to be attacked by melee. The result is the die roll modifier applied against the defender's defensive fire.

Units attacking the hex are considered covered by the rolling barrage. Such units conducting an attack across the open while covered by the barrage do not suffer the -1 per unit die

roll modifier.

Rolling barrage is limited to divisional artillery (from the same division), German Independent Artillery, and one corps artillery per target hex.

19.1.8 Standing Barrage: during the Coordinated Combat Phase, the phasing player may barrage target hexes within range to be attacked by melee. The result is the die roll modifier applied against the defender's defensive fire.

Standing barrage is limited to divisional artillery (from the same division), German independent artillery, and one corps artillery per target hex. ***Note: this is the traditional use of artillery in attack as described by the standard rules (see 6.2).***

19.2 Bridges

The British offensive was aimed northeastward and flanked by the St. Quentin Canal to the east and the Canal du Nord (dry) to the west. Bridges across these were the focus of several phases of the battle. Bridges fall into two categories: steel (rail) and wooden (foot) bridges.

19.2.1 Bridge Collapse: there is a chance that a wooden bridge will collapse under the weight of a tank. Each time a tank unit attempts to move or attack across a wooden bridge, roll a die. On a **4, 5 or 6** the bridge has collapsed under the strain and has been destroyed. Mark the bridge with a bridge destroyed marker. The tank remains on the original side and is unaffected by the collapse. (These are company sized units so one poor tank might have been lost but the rest are fine)

The steel (rail) bridges adjoining hexes 1404, 2104, 1416, 2013 and 2212 are exempt from bridge collapse (as indicated by the rail line crossing them).

19.2.2 Bridge Destruction: During the Movement Phase, the phasing player may purposely destroy bridges. No die roll is needed. An infantry unit must be adjacent to the bridge at the end of the Movement Phase with no enemy unit on the opposite side. ***Note: the one bridge crossing 1229/1329 crosses a stream. Blowing this bridge would, in effect, reduce the hexside to a stream hexside.***

19.2.3 Bridge Repair: beginning Nov 22, either player may attempt to rebuild one wooden bridge per turn. The player must have an infantry unit adjacent to the bridge with an unblocked line of communication. No enemy units may be on the opposite side. During the Movement Phase, roll a die: the bridge is repaired on a 4, 5 or 6. The unit assigned to repair the bridge (whether successful or not) may not move during the phase.

19.3 German Counterattack

Once during the game, the Germans may declare their counterattack, with their current player turn as the counterattack player turn. The counterattack may not be declared during the first week (prior to November 27) of the game. The advantages of the German counterattack apply for the single German player turn of the declared counterattack.

19.3.1 Stoßtruppen Redeployment: on the counterattack player turn, the German may conduct a pre-turn redeployment of stoßtruppen units prior to the Coordinated Combat Phase (see 5.1.1). The redeployment consists of a full move for stoßtruppen units (only) in accordance with the movement rules (see 7.0). They may not enter an uncontested EZOC nor move out of communication (see 10.1, 12.1). The same stoßtruppen units will be allowed normal movement in the ensuing German Movement Phase (see 5.1.2). ***Note: in essence, this rule is intended to prevent the British from seeing the Germans prepare for the upcoming attack, not as an opportunity for the Germans to penetrate the British lines.***

19.3.2 Hurricane Bombardments: on the counterattack player turn, all German bombardments are doubled in strength (see 19.5).

19.3.3 Infiltration: on the counterattack player turn, German troops may employ infiltration tactics, allowing them to attack across the open directly from one enemy zone of control hex to another (see 13.2). In other words, using attack across the open, a unit beginning the combat phase in an EZOC may move directly to an adjacent, unoccupied EZOC.

All German units conducting infiltration must participate in combat during the phase. All British units having their ZOC infiltrated (moving directly from one ZOC hex to another projected by a specific British unit) must be attacked, whether by melee combat or drumfire (see 6.4, 19.1.4); otherwise, the infiltration is not allowed.

Note: a German unit infiltrating from the EZOC of one British unit to the EZOC projected by different British unit does not trigger the requirement of attacking either unit (i.e., the German is not infiltrating the EZOC of a specific British unit).

19.3.4 Melee Attacks: on the counterattack player turn, all German melee attacks in the Coordinated Combat Phase get a two column shifts to the right. In the Hasty Combat Phase, they get one column shift to the right.

19.3.5 British Reinforcements: certain British units were dispatched to the front in reaction to the German counterattack. These include the 9th, 21st, 25th, 61st Divisions and the 4th Cavalry Division (labelled as "R1" and "R2" for setup/turn of arrival). They begin arriving as reinforcements beginning the first British player turn following the German counterattack player turn:

- the 61st Divisions and the 4th and 5th Cavalry Divisions arrive the first turn following the German counterattack player turn,

- the 9th and the 21st Divisions arrive the second turn following the German counterattack player turn.

- the 25th Division arrives the third turn following the German counterattack player turn.

Note: the 5th Cavalry division is part of the initial November 20 setup. Its arrival as reinforcement assumes it has been previously withdrawn (see 19.9).

19.4 Headquarters

British and German corps have headquarters units. These represent the center of operations, the artillery parks surrounding the headquarters. The headquarters units are used to trace the range and LOS for Corps Artillery. Headquarters have no stacking value and no zone of control.

19.4.1 Movement: Headquarters may be moved but for each hex moved, the corps loses the use of one corps artillery marker per hex moved for the next turn. Flip an artillery marker over the Fired side to note the effect. It will return to available at the end of the affected player's next Coordinated Combat Phase.

Headquarters are allowed to move up to four hexes, regardless of how many corps artillery marker are available to be spent.

19.4.2 Reinforcements: headquarters that arrive as reinforcements are allowed to move 8 hexes, entering from a friendly board's edge (see 18.7) or detaching itself from a headquarters currently on the map. Such headquarters may not fire on the next turn.

19.4.3 Enemy Units: headquarters must remain 2 hexes away from enemy units.

If an enemy unit comes within 2 hexes of the headquarters, the corps permanently loses one corps artillery marker. The moment this happens, the headquarters is then displaced by the owning player, moving it up to 4 hexes, flipping one corps artillery marker to its fired side per hex moved for the next turn. If all artillery is already fired, the headquarters may still displace up to four hexes.

Displaced headquarters have victory consequence; place the artillery marker on the charts under German Units Destroyed to track the loss (see 21.2).

19.5 Hurricane Bombardments

On the British first player turn of November 20 (see 22.0, 23.0), the strengths of British artillery for III and IV Corps are doubled for barrage purposes. Similarly on the declared counterattack turn, the strengths of all German artillery are doubled for barrage purposes.

Doubling applies to certain barrage fire only (see 3.3, 6.2): specifically counterbattery, drumfire, interdiction, rolling barrages, and standing barrages (see 19.1.2, 19.1.4, 19.1.6, 19.1.7, 19.1.8). Hurricane bombardments do not count towards anti-tank, defensive or harassing fire (see 19.1.1, 19.1.3, 19.1.5).

Note: *doubling the barrage factor for interdiction make it automatic, no die roll needed.*

19.6 Stoßtruppen

The German player has stoßtruppen (stormtroop) units. They take the form of assault, flamethrower, mortar and machine guns troops. They have no divisional affiliation and may add their strength to any attack. They defend normally.

Stoßtruppen companies do not exert a zone of control (see 10.0). They do not contest an EZOC for movement purposes (see 10.2).

Stoßtruppen companies may use infiltration tactics at any point in the game, allowing them to attack across the open directly from one enemy zone of control hex to another (see 13.2, 19.3.3).

Stoßtruppen have the additional benefit of using their combat strength in both barrage and melee combat (the barrage strength is used only if they participate in the melee as well). Stoßtruppen may conduct rolling or standing barrages in either coordinated and Hasty Combat Phases. This barrage fire is combined with any Artillery attacking the hex in the Coordinated Combat Phase. In the Hasty Combat Phase only Stoßtruppen may barrage. Stoßtruppen defend normally.

When involved in an attack, a stoßtruppen company provides a column shift to the melee combat odds (maximum one shift).

When involved in an attack, the second loss affecting the attacker must be taken by a stoßtruppen company.

19.7 Tanks

Three tank companies (16 tanks each) form a battalion, which collectively have one stacking point. They have no divisional affiliation and may add their strength to any attack.

Tanks companies do not exert a zone of control (see 10.0). Tanks cannot force march (see 7.5). They do not contest an EZOC for movement purposes (see 10.2).

As they move, tanks destroy the wire in hexes they enter (see 19.8).

Tanks may move directly from one EZOC hex to another if that is the limit of their movement. Tanks may move through EZOCs to attack across open.

Tanks have the additional benefit of using their combat strength in both barrage and melee combat (the barrage strength is used only if they participate in the melee as well). Tanks may conduct rolling or standing barrages in either coordinated and Hasty Combat Phases. This barrage fire is combined with any Artillery attacking the hex in the Coordinated Combat Phase. In the Hasty Combat Phase only Tanks may barrage. Tanks defend normally.

Tank companies do not count in the defensive fire modifier of -1 per unit associated with an attack across open.

When tanks are involved in combat, the first British loss must be taken by an infantry unit over tanks (if present). Losses taken as retreat points or reduced by overkill are unaffected by this preference.

19.7.1 Breakdown: at the end of each British Movement Phase, roll one die for tank breakdown (regardless whether the tank unit moved or fought). On the first turn, a five or a six result indicates the tank has broken down; on the second turn and afterwards a six result. Place the unit on the charts under British Tank Breakdowns.

During the course of the game, tanks may be rebuilt. At the beginning of each British Movement Phase, place one previously broken down tank on the III Corps headquarters unit.

19.7.2 Anti-tank Fire: during the German Coordinated Combat Phase, the German player may conduct anti-tank barrages, targeting opposing tank units (see 19.1.1). Each result is a tank step loss. Non-tank units in the target hex are unaffected.

Tanks destroyed in combat or anti-tank fire cannot be rebuilt. Place the unit on the charts under British Units Destroyed to track the loss.

19.7.3 Fascines: on the first British Coordinated Combat Phase, tanks are using fascines against the German trench line. German main trench lines that are attacked by tanks (and infantry) are treated as secondary trenches (i.e., +1 on barrage, no SL and 1 RP for retreat). Secondary trenches are unaffected.

19.7.4 Terrain: when attacking into woods or cities, tanks attack at half strength; when defending in wood or cities, tanks defend at half strength. This applies to both barrage and melee strength. Tanks may not attack enemy units in Marsh hexes or unbridged canal hexsides.

Defending tanks receive no terrain benefit from trenches against Anti Tank fire or if stacked with only tanks, in melee.

19.8 German Wire

British infantry units entering an unbroken wire hex become disorganized. Such units may immediately roll to remove the disorganization unless they entered an enemy ZOC when entering the hex, it which the disorganized state remains. Likewise, any units attacking a German trench hex in wire are also disorganized for the attack (multiple disorganizations are likely as they assault the Hindenburg line).

Note: the orientation of the wire is immaterial to game functions. Germans are unaffected by wire.

Tanks destroy the wire when they enter a hex and when they attack into a wire hex. Use a Break marker to denote that the wire has been destroyed. If a tank accompanies a unit as it enters the wire hex, the unit does not become disorganized.

British cavalry and artillery units cannot enter an unbroken wire hex unless they are part of a stack with a tank unit that is destroying the wire.

British lines of communication extend into but not through an unbroken wire hex.

EXAMPLE: *the 56th Division chooses to attack the 384th regiment of the 20th Landwehr Division in 0910. The 169th*

Brigade attacks across the open from 0710 into 0810 and becomes disorganized. It then attack 0910, becoming disorganized a second time, and now attacking with only 2 combat strength. If it was able to advance, it would then be isolated across two layers of wire.

A non-disorganized British infantry unit with an unblocked line of communication, not in an EZOC, and not affected by an interdiction marker may remove wire in a hex by spending a full Movement Phase in a wire hex. Roll a die. If the roll is equal to or less than or equal to the combat strength of the unit, the wire is broken: place a Break marker in the hex; otherwise, the attempt has no effect and the unit remains stationary.

Germans are unaffected by their wire. Wire cannot be restored after it has been broken.

19.9 Enemy Trenches

When defending in an enemy main trench, the trench is reduced to a secondary trench; enemy secondary trenches remain as a secondary trench.

Note: enemy trenches are those owned by the player at the beginning of the game (as colour coded), regardless of whether the opposing side has moved through the hex.

20.0 OPTIONAL RULES

20.1 51st Division

Major General Harper, leading the 51st Division, was not an advocate of tanks. He refused to cooperate with the proposed tactics, instead requiring his infantry to follow 100 yards behind the tanks. *(Note that other sources say he had experience with using tanks in previous operations and the real reason for difficulty in his divisions area was the level of German fortification in this region and a German artillery unit that had received anti tank training)*

On the British first turn, infantry units of the 51st Division cannot attack with tank units. Instead, each type of unit must attack any German defender separately. Any attacking artillery barrages are unaffected by this, adding their bombardment strength to both forms of attack (each gets a separate roll). Tanks would not be included in the barrage for the subsequent infantry attack. Fascine rules would still apply (see 19.7.3).

EXAMPLE: *two brigades of the 51st Division and three tank companies attack a German regiment along with a rolling barrage from two artillery brigades. First the three tank companies (including the rolling barrage) would attack the German unit. Then, the two brigades (including the rolling barrage) would attack the German unit (assuming it survives and hasn't retreated).*

20.2 Withdrawing Divisions

As combat subsides and the chances of further victory lessen, either side may withdraw divisions from the battle. Such units count toward victory points (see 21.2).

A maximum of one division and one corps artillery marker may be withdrawn per side per turn.

20.2.1 Procedure: to withdraw a division, all units of a division must move out of enemy zones of control.

A division cannot withdraw while units of the division are in enemy zones of control or isolated. Once this condition is met, the units are simply removed from the game.

Divisions that withdraw may not re-enter the game.

Divisions cannot be withdrawn prior to Nov 23 or after December 1.

Similarly, corps artillery may be withdrawn

20.2.2. Victory Points: victory points are granted for each unit, regardless whether of it has suffered a step loss (eliminated units count for nothing). Corps artillery markers count as one unit each.

EXAMPLE: The British Guards division consists of three infantry brigades (3 units) and two artillery brigades (2 units). If withdrawn, the British player would receive 5 victory points.

20.3 Stoßtruppen Assignment

Stoßtruppen companies are assigned to headquarter units prior to the announced counterattack turn, at which point, the stoßtruppen units are redeployed to attack positions (see 19.3.1). Place the stoßtruppen units under the assigned headquarters. Headquarter assignments may be changed during any German player turn except on the counterattack turn.

21.0 VICTORY

Tankschlacht is played until an automatic victory condition is met (at which point the game immediately ends); or for a prescribed number of player turns as outlined in the scenario.

21.1 Automatic Victory

Automatic victory is achieved and the game immediately ends under the following conditions:

- The British player is able to exit units with valid lines of communication off the northern board's edge behind German line (east of hex row 0900).

- The British player is able to cut the rail from Cambrai by moving units onto rail hexes from Cambrai to both 2413 and to 2420.

- The German player is able to exit non-Stoßtruppen units with valid lines of communication off the western board's edge, south of the Canal du Nord.

21.2 Victory Points

When players complete the final turn and an automatic victory has not been achieved, victory goes to the player with the most victory points.

Victory points (VPs) are awarded as follows:

- $+\frac{1}{3}$ VP per tank loss inflicted on the British, starting with the 16th combat loss (*This means the British can lose 15 Tanks before VPs are calculated*),

- +1 VP per non-tank step loss inflicted on the enemy,

- +2 VP per control of each high ground hex (13 hexes in total) with a line of communication,

- -1 VP per bridge blown by the player (see 19.2.2),

- +1 VP per hex displaced by an HQ (see 19.4),

- +1 VP per unit for division withdrawn (see 19.9).

In addition, during the campaign game the British player loses 4 VP per turn prior to announcing the conclusion of the offensive (see 22.6).

Note: tanks destroyed in melee or anti-tank fire (see 19.1.1) count as tank losses, while those that breakdown (see 19.7.1) do not count. It will be important to separate the two groups (as shown on the charts).

22.0 THE CAMPAIGN

Setup as indicated on the player aid. (place divisional artillery - limbered or deployed - within range of all units of the division, one hex or more behind the player's front line). If a unit has a +1, +2 etc next to its deployment hex that means the unit may set up within that many hexes of the listed hex.

Note: British brigades and German regiments of the same division are all equal in strength. When setting up, players may be less concerned with placing the exact units of each division.

22.1 British Reinforcements

Enter from Western board edge in hexes not occupied by German units and outside of EZOCs.

- **Nov 21:** 40th Division
- **Nov 22:** V Corps headquarters (plus corps artillery)
- **Nov 23:** Guards Division
- **Nov 24:** 2nd, 47th (2nd London) Divisions
- **Nov 27:** 59th (2nd North Midland) Division
- **Nov 30:** 16th (South Irish) Division

Reinforcements following the declared German counter-attack:

- **1st turn:** 61st (2nd South Midland) Division, 4th Cavalry Division
- **2nd turn:** 9th, 21st Divisions
- **3rd turn:** 25th Division

22.2 German Reinforcements

Enter any board edge east of the Germans front line trenches (i.e., northern edge east of 0501, southern edge east of 0933, or eastern edge) not occupied by British units and outside of EZOCs.

German reinforcements may arrive by rail, using rail movement, and unload in disorganized state. They may then

continue movement after recovering from disorganization. Units moving by rail may be subjected to harassing fire (see 8.0). Units disorganized from harassing fire detrain in a disorganized state and may not move.

- **Nov 21:** 111, 214 Divisions, 63, 107 Field Artillery Regiments
- **Nov 22:** 3G, 30, 119 Divisions, 20, 61 Field Artillery Regiments
- **Nov 23:** 5G, 21R Division, 11B, 65 Field Artillery Regiments, XVIII, XXII Reserve Corps headquarters (plus off-map corps artillery)
- **Nov 24:** 34, 220, 221 Divisions, 239, 502 Field Artillery Regiments, 3 Jäger, 4 Sturm battalions (2 assault companies each)
- **Nov 25:** 28 Division
- **Nov 26:** 49R Division
- **Nov 27:** 208 Division
- **Nov 28:** 9BR, 185 Divisions, 7/73 Hanoverian Fusilier assault company
- **Dec 1:** 24R Division
- **Dec 2:** 16R Division
- **Dec 3:** 10 Division

22.3 Game Length

15 turns: Nov 20 – Dec 4

Game begins with the British Player Turn.

22.4 Special Rules

British VI and VII Corps units do not move, attack or barrage during the first turn. British hurricane bombardments apply for British first player turn (see 19.5).

British cavalry may not use march mode or forced march on the first turn (see 7.4, 7.5).

On any turn after turn 3, the British player may announce the conclusion of the offensive. Until then, the British player will lose 4 victory points per turn, starting with turn 4. The announcement must be conducted prior to the British Coordinated Combat Phase.

After announcing the conclusion of the offensive, the British player must immediately withdraw corps artillery from III Corps and IV Corps, bringing their number down to two markers per corps maximum. The corps artillery being withdrawn may not fire the turn of announcement; otherwise, the conclusion is postponed unit next turn and the 4 victory points are lost.

These victory point losses apply only when playing the campaign game.

22.5 Victory

The British player must beat the German player by 30 victory points. Any other result is a German victory.

22.6 Historical Notes

The campaign captures the original tank offensive, followed by the battle for Bourlon Woods and then the Germans counter-attack.

23.0 OPERATION "GY"

This is a short introductory scenario intended to focus solely on the British attack and whether a success can be achieved. This is suited to play solitaire.

23.1 British Setup

(Use the campaign setup)

23.2 British Reinforcements

None

23.3 German Setup

(Use the campaign setup)

23.4 German Reinforcements

None

23.5 Game Length

3 turns: November 20, 21, and 22.

23.6 Special Rules

British VI and VII Corps units do not move, attack or barrage during the first turn. British hurricane bombardments apply for British first player turn (see 19.5).

23.7 Victory

The British player must beat the German player by 30 victory points. Any other result is a German victory.

24.0 ANGRIFFSCHLACHT

The Germans began planning their counterattack a few days after the British attack. In the early hours of November 30, a routine barrage against British VII corps increased to a hurricane as stoßtruppen began infiltrating the British lines.

Setup as indicated on the player aid. (place divisional artillery - limbered or deployed - within range of all units of the division, one hex or more behind the player's front line). If a unit has a +1, +2 etc next to its deployment hex that means the unit may set up within that many hexes of the listed hex. British setup first, followed by the Germans. The Germans setup such that they present a continuous line of units and zones of control from the northern to the southern map edges. All step losses on the chart may be assigned to any infantry unit of that division.

24.1 British Reinforcements

Enter from Western board edge in hexes not occupied by German units and outside of EZOCs.

- **Dec 1:** 61st, 4th and 5th Cavalry
- **Dec 2:** 9th, 21st Divisions
- **Dec 3:** 25th Division

24.2 German Reinforcements

Enter any board edge east of the Germans front line trenches (i.e., northern edge east of 0501, southern edge east of 0933, or eastern edge) not occupied by British units and outside of EZOCs.

German reinforcements may arrive by rail, using rail movement, and unload in disorganized state. They may then continue movement after recovering from disorganization. Units moving by rail may be subjected to harassing fire (see 8.0). Units disorganized from harassing fire detrain in a disorganized state and may not move.

- **Dec 1:** 24R Division
- **Dec 2:** 16R Division
- **Dec 3:** 10 Division

24.3 Game Length

5 turns: Nov 30 – Dec 4

Game begins with the German Player Turn (first British player turn would be December 1).

24.4 Special Rules

There are no destroyed bridges nor can they be destroyed (see 19.2).

The German first player turn begins with the counterattack (see 19.3). There is no stoßtruppen redeployment (see 19.3.1). German hurricane bombardments apply for German first player turn (see 19.3.2, 19.5).

All wire between the two canals (St Quetin Canal and Canal du Nord) and hexes 0808-0812, 0909-0912 are broken (see 19.8).

No withdrawal (see 19.9).

24.5 Victory

Victory goes to the player with the highest victory point total. Initial losses *(those listed in the setup)* do count toward the VP total. Any British tank losses count toward the VP total *(they have suffered 15 losses previously)*.

24.6 Historical Notes

The Germans began planning their counterattack a few days after the British attack. In the early hours of November 30, a routine barrage against British VII corps increased to a hurricane as stoßtruppen began infiltrating the British lines.

25.0 DESIGNER'S NOTES

As the Great War Battles series is expanded, designing a game on trench warfare was seen as a natural step to test how dynamic the system is -- and what better battle to select than Cambrai. It features many of the classic elements of a western front battle – trenches, wire, rolling, tanks, stoßtruppen, etc. – while providing an exciting and gameable attack/counterattack situation.

As presented, Tankschlacht reflects the evolution of tactics as both sides attempted to find solutions to the trench deadlock.

The initial installment of the Great War Battles series, Death of an Army, covered the first battle of Ypres, 1914. This was a relatively open battle with primitive entrenchments. As the war progressed, trenches and wire became a dominant component of defense. Belts of wires tens of metres in depth were laid to deter attacks as well as redirect assaulting troops into killing zones. To counter this, new weapons and tactics were developed to tackle these problems: gas, tanks, infiltration, hurricane bombardments, etc. The net result of all this is layer upon layer of rules, making Tankschlacht a dense game. None of these rules are complicated per se but their application becomes complex. Typically, the game begins to go awry from the start as confusion sets in. Divisions become tangled and the varying unit types -- infantry, cavalry, tanks or artillery – crowd the battlefield. This was the reality of battlefields on the Western Front.

And if you forget a rule, attribute it to fog of war and just keep playing!

With that said, choosing Cambrai places this design in direct comparison to an all-time classic and well-respected game: David Isby's To the Green Fields Beyond (SPI, 1978), considered by many as the definitive game on the First World War. There are other games on the battle, namely Isby's earlier Cambrai, 1917: the First Blitzkrieg (Rand Games, 1974), Ted Raicer's Royal Tank Corps (Moments in History, 2000) and Michael Rinella's Breakthrough Cambrai (MMP, 2011), but these were more generalized designs. As a personal philosophy, I do my best to keep an arm's length from other designs on the topic and I followed that for the most part. Yet, as my research and development progressed, I found this unnecessary. I came across many differences that clearly make Tankschlacht, a new, novel approach quite different from To the Green Fields Beyond and others. Aside from the different foundation presented in the Great War Battle series rules, I chose to emphasized different factors in the battle from those in Isby's design.

The Hindenburg Line

Following the battles of Verdun and the Somme, the German Army was exhausted. During the winter of 1916-1917, the German Army built the Hindenburg Line: a defensive line optimizing strength and position and built behind the current front. Building the line also shortened the front, freeing up troops. And when the Germans withdrew to the Hindenburg Line, they devastated the terrain as they retreated to hinder Allied supply lines and future attacks.

The Hindenburg Line is presented in Tankschlacht, consisting of a line of wire, an outpost line, a second line of wire and then the main line followed by a reserve line two of three hexes beyond. In theory, attacking British units would cross the wire into the outpost zone, losing their cohesion. Those that made it though would then attack the main line, becoming further disorganized as they did.

Curiously, Isby makes no distinction between trenches in To the Green Fields Beyond. Does the decision whether to

include this detail have an impact on the game as a simulation of the battle? Perhaps but this was something I wanted to present to the game player to teach them why the battle was managed the way it was.

Tanks

Naturally, tanks required special treatment to be properly captured in the Great War Battles series rules. I chose company-sized units, similar to Isby's decision, and gave them an ability to fire and melee on the attack. I also gave them the ability to infiltrate German zones of control. Seemed a simple and practical way of capturing their effects.

The other critical purpose of the tank in this battle was to crush wire. As previously discussed, I wanted to show how the Hindenburg line impacted fighting on the Western front and how the British chose to tackle the problem.

The final problem I was confronted with was how artillery would attack tanks. The issue was not their ability to attack tanks but how the artillery would survive the British counterbattery fire in the first place?

Artillery

Isby chose to emphasize artillery in To the Green Fields Beyond. This involved different missions, hurricane barrages and ammunition tracking. Drumfire was used to disrupt or suppress a target, direct fire was added to the combat strength of attacking troops while rolling barrages resulted in column shifts on the combat results table. Hurricane barrages double firing artillery's strength, while consuming three times the ammunition

In Tankschlacht, I chose not to track ammunition. Hurricane bombardments were simply limited to the initial British attack and to the German counterattack. A fair abstraction as this tactic would require preparation and planning as well as deployment of ammunition – something that would limit its use.

A variety of artillery missions are captured in the game system. Standing barrage, the traditional artillery mission, was captured in the original Great War Battle series rules. Rolling barrage, a gradual procession of shelling over the battlefield, allowed infantry a chance to advance under cover immediately behind the barrage. Drumfire and counterbattery fire, separate from an infantry assault, results in disorganization (now applied as a loss of gradually combat strength that can be recovered).

Finally, corps artillery is conveniently represented by centers of operation, removing some of the counter clutter.

Stoßtruppen

There has been a certain mystic around German stoßtruppen in history. Isby chose to give stoßtruppen remarkable powers that, in my opinion, were overstated. They were stronger than most units, allowed to move through enemy zones of control, and fought on the mobile combat results table, making them super-tanks that never broke down.

I spent many hours researching this topic, trying to understand what made these units so remarkable. I also spent many hours trying to validate which units were stoßtruppen and this was where I made a remarkable discovery: there were only two sturm-bataillone (storm battalions) at Cambrai. These battalions led in the counterattack (as smaller squad-sized units) but also instructed the other divisions in infiltration tactics prior to the attack. Instructions essentially came down to charging as far as possible and ignoring enemy strong points. As a result, they broke through the British line but at a heavy cost.

So where are the seven or so divisions that Isby attributed as stoßtruppen? I do not know. They appeared in his first design, Cambrai, 1917. The same divisions were the labelled stoßtruppen in To the Green Fields Beyond and again in Racier's Royal Tank Corps. I am willing to stand corrected on this, but based on my understanding, I portrayed infiltration tactics as a general tactic employed by all attacking units on and only on the day of the German counterattack.

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27.0 CREDITS

Game Design: Kerry Anderson.

Game Development: Roger Miller, Richard Handewith

Graphics: Edmund Hudson, Mark Mahaffey, Charles Kibler

Playtesting: Dennis Benson, Gene Buksa, Richard Handewith, Karl Kreder, Tony Lipiec, Roger Miller, Tim Porter, David Schoepke.

Sequence of Play

The first player is the phasing player and conducts the following events in sequence.

6.0 Coordinated Combat Phase

- Phasing player conducts all Drumfire, Counterbattery, and Anti-Tank fire using the Fire Combat Results Table (CRT) and the most advantageous (for the defender) Barrage modifiers from Terrain Effects Chart, (TEC).

- Interdiction fire is then done using its own procedure 19.1.6

- Each hex that is being attacked is then resolved one at a time in the following order.

- Any units that are Attacking Across the Open are moved into their hexes and marked with the appropriate marker. If Tanks enter wire during this move, the wire is destroyed. Place a Break marker in the hex.

- Attacker then performs any Standard or Rolling Barrages using the CRT, modified by the most advantageous Barrage DRM's (for the defender) from the TEC. Any results from this fire will be used as a Die Roll Modifier, (DRM) during Defensive Fire. Reminder that Tanks have fire capability for Standing and Rolling barrages.

- Defender performs Defensive Fire using the CRT modified by DRM's from the Attackers Barrage and from hexside terrain, see Defensive Fire DRM column on TEC. Numerical results from this fire will be used as a DRM during Melee. It is possible that weak defending units with a poor die roll may have a level of disorganization applied to them.

- Attackers then perform Melee using the CRT, modified by DRM's from the Defensive Fire and the most advantageous shift (for the defender) from the Melee Effect column on the TEC. Defender then chooses to Retreat one hex, or not, and takes his losses. Attacker takes his losses and then chooses to Advance any surviving attacking units into the defender's hex.

- Place a Battle marker in the hex.

- Any wire hex attacked by a tank destroys the wire and place a Break marker in the hex.

7.0 Movement Phase

- Move units one at a time or by stack paying the cost from the TEC.

- If a unit has an Attack Across the Open marker roll a die and the units lose that many movement points to remove the marker and may then move with any remaining movement points (if any).

- If a unit has a Disorganized marker roll a die and lose that many movement points to remove one level of Disorganization. If the unit is no longer Disorganized, then it may move with any remaining movement points. If still Disorganized it may roll again to remove another level of Disorganization and so on.

- May destroy a bridge if a friendly infantry unit is adjacent to the bridge at end of movement and no enemy unit is adjacent to bridge.

- After all movement roll for Tank Breakdown for each tank. On Turn 1 a die roll of 5 or 6, the tank breaks down and is placed in the Tank Breakdown Box. From Turn 2 on, a die roll of 6 causes a breakdown.

11.0 Hasty Combat Phase

- May only attack from one hex (no multi-hex attacks).

- Only Tanks and Stoßtruppen may fire barrage in hexes they are attacking.

12.4 Surrender Phase

- Place an Isolation Marker on phasing player's units with no line of communication. Increase level by one if units already Isolated.

- Check if any phasing player's Isolated units Surrender: A roll equal to or less than the number on the marker causes a step loss

- Remove all Battle markers.

Second Player Turn

The second player becomes the phasing player and conducts the same sequence of events as described for the first player above.