

OPERATION WINTER STORM

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1.0 INTRODUCTION

Operation Winter Storm simulates the attack by the German 57th Panzer Corps to open a corridor to the German Sixth Army trapped in the Stalingrad pocket. Fought between 12-23 December 1942, this battle sealed the fate of the 20 German divisions in the pocket. The loss of the entire Sixth Army marked what is generally considered the turning point of the war in the east, if not of the Second World War.

Operation Winter Storm is played in a number of game turns, each with several player phases. The German player must use his initial combat advantage to quickly open a corridor to the pocketed Sixth Army before the Soviet player can react. In addition to the 57th Panzer Corps' attack, the German player may also execute the second phase of the relief operation, an attack by elements of the Sixth Army to link with the advancing relief force. The Soviet player must withstand the initial German armored onslaught until he can bring powerful reinforcements into play. He must prevent any contact between the relief force and the entombed Sixth Army and destroy the 57th Panzer Corps.

2.0 GAME EQUIPMENT

(2.1) Unit counters

The various pieces, called units, represent the formations engaged in this battle. Other counters are used as markers to convey information important to game play. A unit's color indicates its nationality:

- | | |
|--------------------------------|--------|
| * German Army | Gray |
| * German Air Force (Luftwaffe) | Blue |
| * Rumanian Army | Green |
| * Red (Soviet) Army | Brown |
| * Red Army Guards Units | Red |
| * Red (Soviet) Air Force | Purple |

Shown below are representative units is Operation Winter Storm.

Front Back

Armor

Infantry

Artillery

Headquarters

Air

The table below explains unit symbology and groups units by type.

Armored units

- Tank (Soviet) or Panzer (German)
- Assault guns
- Self-propelled antitank guns
- Reconnaissance
- Mechanized infantry

Non-armored units

Infantry units

- Infantry
- Motorcycle
- Engineer
- Cavalry

Artillery Units

Antitank
Antiaircraft
Artillery
Mortar
Rocket launcher

Headquarters

For movement purposes, there are also three different unit classes. **Motorized** units have wheels under their symbology boxes. **Tracked** units are all tank, self-propelled gun and mechanized infantry units and have a "T" between the combat and movement factor. **Non-motorized** units are those units without the wheeled or "T" marking.

Unit abbreviations:

General

B - Bomber
DB - Dive bomber
F - Fighter
GA - Ground attack

Soviet

BADS - Bomber Air Division
IAD - Fighter Air Division
SADS - Mixed Air Division
SHAD - Ground Attack Air Division
2M - Second Guards Mechanized Corps
4C - Fourth Cavalry Corps
4M - Fourth Mechanized Corps (soon to become the Third Guards Mechanized Corps but which will retain its original designation in Operation Winter Storm)
7TK - Seventh Tank Corps
13TK - Thirteenth Tank Corps (in name only; this unit was organized as a mechanized corps)

German

B - Gruppe Bischof
E - Kompanie Eule
JG - Jagdgeschwader (fighter squadron)
KG - Kampfgeschwader (bomber squadron) when referring to air units or kampfguppe (battle group) when referring to ground units
L - Panzerverband Langenthal
Lehr - German Army instruction units
SG - Schlachtgeschwader (ground attack squadron)
STG - Stukageschwader (dive bomber squadron)
ZG - Zerstoerergeschwader (heavy fighter squadron)
6P - Sixth Panzer Division

14P - Fourteenth Panzer Division
15L - Fifteenth Luftwaffe Field Division
16M - Sixteenth Motorized Division
17P - Seventeenth Panzer Division
23P - Twenty-third Panzer Division
29M - Twenty-ninth Motorized Division

Rumanian

C - Group Christea

Lt - light infantry

Mixed - a conglomeration of company-sized heavy weapons units for game purposes

6C - Sixth Corps

7C - Seventh Corps

Unit size symbols:

Units in Operation Winter Storm vary in size. Unit size indicators are explained below:

XXXX - Army (headquarters units only)
XXX - Corps (headquarters units only)
XX - Division (headquarters units only)
III - Regiment (from 800 to 2400 men)
II - Battalion (300-900 men)
I - Company (100-200 men)
KG - ad hoc units of approximately 300 men

Aircraft units represent between 30 and 90 aircraft

(2.2) Game Markers

Several different types of markers are provided to facilitate game play. The most numerous are unit strength markers. Each unit's full strength is shown on the front of the unit. Almost all units possess a reduced strength that is indicated on its reverse side. If a unit is forced to suffer a strength point loss that brings the unit's current strength between its full and reduced values, or to a strength below its reduced side, then a unit strength marker is required. Place a strength marker under the unit and turn the marker up to indicate the number of the strength points remaining. When a unit's losses equal or exceed its original strength, it is eliminated.

Additional game markers in Operation Winter Storm include:

- Organic Supply/Out of Supply
- Unit disruption markers (indicated with a "DIS")
- Artillery Fired/Moved markers
- Interdiction markers (indicated with an "INT 1, 2, 3 or 4")
- Bridge/Bridge Out markers
- Entrenchment markers; one side indicating an entrenchment under construction and the other side with a completed entrenchment symbol

(2.3) Maps and Charts

The map represents the contested area across which the battle raged in late 1942. Each hexagon represents one type of predominant terrain.

The following charts and tables are necessary for game play. These include:

- Turn Record Chart
- Combat Results Table (CRT)
- Bombardment Table
- Air Combat Table
- Terrain Effects Chart (TEC)
- Air Operations Charts (one German, one Soviet)
- Detailed Sequence of Play Chart

(2.4) Game Scale

Each hex is approximately two miles across. Each turn is 12 hours.

(2.5) Rounding Convention

In all game functions, ratios of .50 and higher are rounded up. Ratios of .49 and lower are rounded down.

3.0 Game Sequence

(3.1) Each turn consists of a number of different phases. These must be performed in strict sequence. A complete game turn consists of the following phases:

1. Air Operations Phase

- a. Air Allocation Segment
- b. Air Combat Segment
- c. Air Bombardment Segment
- d. Interdiction Segment

2. Stalingrad Pocket Phase

- a. Operation Thunderclap Initiation Segment
- b. German Sixth Army Activation Segment
- c. Soviet Ring Forces Phase

3. Initiative Phase

- a. Initiative Determination Phase

4. First Player Phase

- a. Supply Determination Segment
- b. Non-mechanized Formation Combat Segment
- c. Non-mechanized Formation Movement Segment
- d. Mechanized Formation Movement Segment
- e. Mechanized Formation Combat Segment

(NOTE: players may perform segments d. and e. and any order. See 7.0 for details and restrictions.)

5. Second Player Phase

- a. Supply Determination Segment
- b. Non-mechanized Formation Combat Segment
- c. Non-mechanized Formation Movement Segment
- d. Mechanized Formation Movement Segment
- e. Mechanized Formation Combat Segment

(NOTE: players may perform segments d. and e. and any order. See 7.0 for details and restrictions.)

6. Recovery and Replacement Phase

- a. Disruption Removal Segment
- b. Replacement Segment
- c. Fired Marker Removal Segment
- d. Air Unit Recovery Segment

After the last phase has been performed, play proceeds to the next game turn. At the conclusion of the last turn of the scenario, the game is over and victory is determined.

4.0 Air Operations

(4.1) General

The Air Operations Phase is broken down into a number of segments. Most air unit functions occur during the Air Operations Phase before ground units are moved. However, German Stuka air units may conduct missions during the German player phase. At the end of each game turn, air units attempt to recover from disruption and ready for operations next turn.

(4.2) Air Missions

During each clear weather day turn, air units may perform one mission. The types of missions are described below:

- Interdiction - only German units may be assigned this mission.

- Ground attack (also called bombardment) - all air units with an air-to-ground factor may be assigned this mission.
- Air superiority - only fighter units may be assigned this mission.
- Escort - only fighter units may be assigned this mission.

(4.3) Air Allocation Segment

During this segment, players allocate ready aircraft to the desired mission areas shown on each player's Air Operations Chart. In most mission areas, the owning player may assign both mission aircraft and a fighter escort. Each air unit may perform only one mission per turn. In order to execute a mission, the unit must be available for operations at the start of that turn. All aircraft have adequate range to operate over the entire game map and may be moved from the various mission boxes onto any target hex on the map.

The Air Allocation Segment consists of three steps:

Step 1 - the Soviet player secretly places any or all of his ready air units (including his fighters) in the mission boxes on his Air Operations Chart.

Step 2 - the German player does the same with his ready units.

Step 3 - both Air Operations Charts are revealed. The German player may now place his ready fighter units in any of his mission boxes.

(4.4) Air Combat Segment

Air combat is only initiated by units conducting an air superiority mission. During the Air Combat Segment, each player determines if a unit committed to air superiority makes an interception. Roll a die for each fighter unit. If the result is equal to or less than the unit's proficiency rating, it has made an interception and may be allocated against enemy units in the appropriate box on the opposing player's Air Operations Chart. Units that fail their proficiency check are placed in the flown box. Soviet fighter units committed in a mission box with no German units return to the flown box.

Procedure. Once allocated against enemy air units in the appropriate mission box, air combat is resolved. If escorts are present, they must be engaged first. Players first determine which set of fighters, the escorts or the air superiority (intercepting) fighters have gained "the bounce". Each player rolls the die and adds its value to the highest proficiency rating of one of his engaged fighter units. The player with the highest total (ties are re-rolled) has gained the advantage, designating which units will be paired in air combat and fires first. Once he pairs his units with enemy units, those units may only engage in air combat with each other. If one player possesses more fighters than the other, units must be allocated against all enemy units before more than one unit may fire at a single enemy unit. If more than one unit is allocated against a single enemy unit, each attacking unit fires separately. If the first attack forces the enemy unit to abort, the additional fighters allocated may not be reassigned. Each unit may fire only once during this round of fighter combat.

Once units have been designated for engagement, the firing unit's air-to-air combat factor is compared to the target unit's defensive factor and a differential calculated. Roll one die, modify as indicated on the air combat table, and refer to the air combat table for results. After

the player with the bounce has fired, any combat results are applied. The disadvantaged player may now return fire with any surviving aircraft.

If after the round of fighter combat the air superiority player has any remaining aircraft, he may now fire on enemy bomber aircraft in the appropriate mission box. For this round of combat, all fire is simultaneous. No losses are extracted until both sides fire. The intercepting player designates which units will be engaged. He may choose to fire on any or all bomber units in the mission box. However, each intercepting fighter may fire only once during this round. If more than one fighter unit is allocated against a single bomber unit, each attacking unit fires separately. Each bomber may fire only once during this round of combat and no bomber may fire unless fired upon.

Use the same procedure to resolve combat as shown during fighter combat. Following the air combat segment, all surviving fighter units are placed in the flown box. Surviving bomber units may now conduct their mission.

Example of play: During step 1 of the allocation process, the Soviet player has designated two ground attack regiments to conduct ground attack missions. These are escorted by two fighter regiments. During step 3 of the Air Allocation Segment, the German player decided to commit his best fighter unit, II/JG52 to an air superiority mission against the Soviet ground attack force. First the German must roll to see if the fighter unit actually intercepts the Soviet units. In the case if this unit, a roll of eight or less means that the interception was made; with a roll of "five", the players move on to the combat procedure. First, the bounce is determined. The German rolls a "six" which is added to the proficiency rating his fighter unit (eight) for a total of 14. The Soviet player takes either of his fighter units (both possess a rating of six) and rolls the die. A result of "seven" gives a total of 13. The German has gained the bounce.

The German now designates his fire against one of the two escorting fighter regiments. The Soviet player has an additional fighter unit available which he obviously designates against the sole German unit involved.

Now the German player resolves the fire of his unit. With an air-to-air combat factor of six against the Soviet unit's defensive factor of five, the combat is rolled on the +1 column of the air combat table. A +1 die roll modification is awarded as the German unit has a higher proficiency rating than its target unit. A roll of "four" (modified to five) means that the Soviet unit must abort its mission and return to the flown box. It cannot return fire. Now the second Soviet fighter unit can fire. It rolls on the -1 column with no die roll modifications. A roll of "five" yields a no result.

The German fighter can now attack the mission force. It picks one of the Soviet ground attack regiments to engage. Fire is simultaneous. A German roll of "six" (modified to eight because of a proficiency rating three better than the target unit) results in the abortion and disruption of the Soviet unit. The Soviet unit, firing with a -1 die roll modification, gains a result of no effect with a roll of "seven". The other Soviet ground attack regiment does not fire, but is now free to conduct a ground attack mission.

(4.5) Air Interdiction Segment

This mission may only be performed by German air units. The German player allocates his aircraft assigned to this mission against any hex. If a successful result is gained (see below), an interdiction zone of five hexes from the target hex is created. Any unit starting in or moving into

this zone loses the number of movement points of the result gained. If multiple interdiction zones are created which overlap, the movement penalty on any affected Soviet unit is cumulative. Units cannot use administrative movement in an interdiction zone.

Procedure. Total the bombardment strength of the attacking units. Roll on the Bombardment Table. Any number result obtained is the number of movement points lost by every Soviet unit starting in or moving into the newly created interdiction zone. After completing this mission, aircraft are placed in the flown box.

Example of play: The German player intends to attack the Soviet 91st Rifle Division this turn and decides to commit the II/STG 77 unit against hex 2538 in an attempt to restrict that formation's ability to maneuver. The attack is rolled on the seven column of the bombardment table. A roll of "seven" indicates that any Soviet unit within a five hex radius of 2538 loses one movement point.

(4.6) Air Bombardment Segment

During this segment, units assigned to ground attack missions which have survived the Air Combat Segment conduct attacks against enemy ground units. For Soviet air units, the target must be within five hexes of any Soviet unit. German air units may strike any hex on the map. Any number of aircraft may be assigned to a single target.

Procedure. To resolve bombardment, the active player allocates the bombardment factors of any ground attack mission aircraft (including the bombardment factors of any escorting fighter unit which was not involved in air-to-air combat) against an enemy unit. If using the fog of war rules, the bombarding player may attack any hidden unit in a stack by choosing one at random. Determine the total bombardment factors against the target unit and roll on the bombardment table. Results are applied immediately. After completing bombardment, aircraft are placed in the flown box.

German Ju-87 dive bomber units can conduct bombardment during the Air Bombardment Segment or may be withheld to support the hasty or prepared attack of a German mechanized formation during its Movement or Combat Segment.

Example of play: Continuing the example from section 4.4, the Soviet ground attack regiment which survived interception is now allocated to attack a large German concentration. The top unit in the stack is a 12-10 tank battalion; the other units in the stack are unknown. He decides to attack the tank battalion. The ground attack regiment has a bombardment value of five. The attack is rolled on the three column of the bombardment table after the one column left shift for attacking an armored unit is applied. There are no die roll modifications. A roll of "eight" gives a result of "1". One strength point is removed from the target tank battalion. The ground attack unit is placed in the flown box.

(4.7) Air Units Recovery Procedure

Air unit recovery is performed during the Recovery and Replacement Phase (see 17.0) Before air units can be allocated to missions, they must be readied for operations. All aircraft begin the game ready. After flying any mission, all aircraft must go through the readying process.

Procedure. Units in both the flown box and the disrupted box roll a single die. If the roll is equal to or less than the number indicated on the Air Operations Chart for that type of aircraft to achieve ready status, the aircraft may be moved to the aircraft available box. If the die roll is greater, the unit remains in the flown or disrupted box and is not available next turn for operations.

5.0 The Stalingard Pocket Phase

(5.1) Operation Thunderclap

One of the great what-ifs of the Second World War was the intriguing possibility that the Sixth Army would have been permitted to attempt a break out to link with the relief attack. As originally planned, the second phase of the relief operation was to have been an attack by the Sixth Army, code-named Operation Thunderclap. In the end, Operation Thunderclap was forbidden by Adolf Hitler who insisted that the Sixth Army could only conduct such an attack if it held its positions along the Volga. This condition rendered the original scope of Thunderclap impossible. However, even given this restriction, the Sixth Army still could have committed an armored battle group under the control of the headquarters of the 14th Panzer Division to punch through the Soviet ring and open a tenuous corridor to the approaching relief forces. The commander of the Sixth Army gave this option serious consideration before deciding against it. Operation Winter Storm gives this limited option to the German player. Eastern Front purists may choose to ignore this rule, but players who include it will find it heightens the degree of uncertainty as the Soviet player is forced to consider the possibility of facing a attack from two axes.

Initiation of Operation Thunderclap may only be attempted once per game. It may not be attempted until elements (defined as at least 12 stacking points) of the 57th Panzer Corps have approached to within 10 hexes of the pocket. When this condition has been met at the start of any Stalingrad Pocket Phase, the German player can roll a single die in an attempt to initiate Thunderclap. Use the table below to ascertain the result:

Operation Thunderclap Initiation Table

Die roll 1-5 - The attempt fails; permission for Thunderclap is denied.

Die roll 6-10 Sixth Army units are activated.

Modifiers:

- +1 DRM if any German unit is within five hexes of the pocket.

If activated, Sixth Army units immediately conduct a special phase. Sixth Army units may not receive any air support. They continue to move during the Stalingrad Pocket Phase until the 14th Panzer Division headquarters unit can trace a line of communications to the 57th Panzer

Corps headquarters. This path can be of any length, but cannot be traced through Soviet units or their zones of control (Soviet ZOCs are negated by friendly units for this determination). Once such a path is established, Sixth Army units move during the German Player Phase. Sixth Army units are considered to be a mechanized formation.

Once activated, Sixth Army units are placed on any hex inside the pocket. If any Sixth Army unit leaves the pocket and is subsequently forced to return to the pocket or voluntarily returns to the pocket before they have opened a command path to 57th Panzer Corps headquarters, Operation Thunderclap is considered to have ended and all Sixth Army units are removed at the conclusion of the current Stalingrad Pocket Phase.

Sixth Army units do not receive replacement points. Until the 14th Panzer Division headquarters can trace a supply line to any other German headquarters unit, the supply situation of all Sixth Army units exists as described below:

- First turn of activation = Regular supply.
- Second turn of activation = Organic supply.
- All subsequent turns = out of supply.

(5.2) Soviet Ring Forces

There are three Soviet armies that man the inner ring of the Stalingrad Pocket. These forces were assigned the mission of preventing a breakout by the trapped Sixth Army. Soviet Ring Forces are set up adjacent to the Stalingrad Pocket and may not move once placed.

Soviet Ring Forces defend in-place and never retreat voluntarily. If attacked, Soviet Ring Forces must make a proficiency check to defend in place. The only Soviet Ring Forces units that can move during the Soviet Ring Forces Segment are those units that have been forced to retreat as a result of combat and any unit released. During each Soviet Ring Forces Segment, the Soviet player rolls a die for any of the three Soviet Ring Armies that have been attacked. If the roll is “eight” or greater, the Soviet player may release a single unit (a unit for this purpose is any one piece) of that army. This unit must follow all movement rules including those for moving out of an enemy ZOC as all Soviet Ring Forces adjacent to the Stalingrad Pocket are assumed to be in a German ZOC.

6.0 The Initiative Phase

(6.1) During this phase, possession of the initiative is determined. The player who gains it becomes the first player; the losing player becomes the second player for the remainder of the game turn.

Procedure. Each player decides how many attacks (hasty or prepared, not bombardment) he plans to conduct this turn. Each player then rolls a single die and adds the planned number of attacks to the die roll. The player with the highest total gains the initiative. Ties are re-rolled. The player with the initiative now becomes the first player and moves first.

(6.2) The player gaining the initiative must conduct the stated number of planned attacks. He can conduct more if desired. Failure to conduct the planned number of attacks results in

forfeiture of the game. The player who lost the initiative is not bound by the planned number of attacks; he can conduct as few or as many as desired.

(6.3) Effects of Gaining the Initiative

The player gaining the initiative becomes the first player for determining move sequence. If the same player gains the initiative on consecutive turns, additional effects come into play.

- On the second consecutive turn, all units of the owning player gain one additional movement point.
- On the third consecutive turn, all units of the owning player gain an additional movement point and each of his attacks (hasty and prepared, not bombardments) are given a +1 die roll modifier.
- On the fifth consecutive turn, all units of the owning player gain an additional movement point and each of his attacks (hasty and prepared, not bombardments) are given a +2 die roll modifier.

Example of play: It is turn one. The German player plans a total of eight attacks to open his offensive. The Soviet player plans on making only two. Each player rolls a single die. The German player adds his die of "five" to his bid for eight attacks for a total of 13. The Soviet player adds his die of "seven" to his attack bid of two for a total of 9. The German player has gained the initiative and becomes the first player.

7.0 The First Player Phase

(7.1) The player who gains the initiative becomes the first player. His opponent becomes the second player. Each player phase consists of five segments (see section 3.0 Game Sequence or the detailed Sequence of Play chart). After supply is determined, each player conducts a combat segment with his non-mechanized formations followed by a movement segment for all non-mechanized formations. Non-mechanized and mechanized formations are distinguished as indicated below. Each formation has a varying number of individual units assigned to it. These units can only move and fight when their parent formation is activated.

- German. All Rumanian formations, the 15th Luftwaffe Field Division, Gruppe Bischoff, Kompanie Eule, and the three relief convoy units are non-mechanized formations. All other formations are mechanized. All units assigned directly to the 57th Panzer Corps are treated as mechanized formations.
- Soviet. The 2nd Guards Mechanized Corps, 4th Mechanized Corps, 7th and 13th Tank Corps are mechanized formations. All other formations are non-mechanized. All units assigned directly to the Soviet 51st and 2nd Guards Army are treated as non-mechanized formations.

(7.2) Following the movement of all non-mechanized formations, each player has an option on the order of execution by his mechanized formations. Each player may execute mechanized formations' Movement or Combat Segments in the order he desires, but all movement must be completed before combat can occur, or all combat must be resolved before movement can occur.

8.0 Movement

(8.1) General

Each unit moves across the game map from hex to adjoining hex paying the appropriate movement point cost for each hex entered or each hexside crossed. The rate of movement is different for units in each of the three movement categories (tracked, motorized and non-motorized). Refer to the terrain effects chart for exact costs.

Units may be moved singly or in stacks. If stacked, the entire stack may only move at the rate of the slowest unit. Units may leave stacks and continue to move independently at any time and slower units may be dropped off during the move. Movement of one stack must end before another may begin.

Movement points may never be accumulated from turn to turn and may never be transferred from unit to unit. Weather may also impact movement. During several turns, road conditions are icy (see turn record track) and all units treat road hexes as clear terrain.

A number of other factors can affect a unit's movement capability, including enemy zones of control (Section 10.0), disruption (Section 13.0), supply (Section 14.0), and interdiction (Section 4.5).

(8.2) Movement Restrictions

- No Soviet unit may enter any hexes inside the Stalingrad pocket.
- No unit of either side may cross the Don River. This includes retreats across bridge hexes.
- There is no minimum movement capability. Units cannot move even a single hex if they lack the movement points to do so.

(8.3) Administrative Movement

Units may move up to one and one-half their normal movement rate if taking advantage of administrative movement. To do so, they must not start or move adjacent to enemy units during any point in their movement phase. Disrupted units may not use administrative movement. Administrative movement cannot be conducted in an interdiction zone.

(8.4) Hasty Attacks

Hasty attacks are conducted during movement. Each single unit or stack must finish its movement, including all hasty attacks, before the next unit or stack may move. Units must start the Player Phase stacked together to move and execute hasty attacks together. Only the German player may use supporting air or artillery units for bombardment and only in his Mechanized Formation Movement Segment. To use an artillery unit to conduct a supporting bombardment for a hasty attack, it must start the movement phase stacked with the units conducting the hasty attack. The artillery unit can use its full bombardment strength against the target hex and continue to move with the stack conducting the hasty attack. This is the only exception to 12.3.

Procedure. The active unit or stack moves next to an enemy unit, paying the movement cost to enter an enemy zone of control, the movement cost for a hasty attacks, and the cost to enter the terrain of the defender. Hasty attack movement costs vary by unit type:

Hasty Attack Movement Costs

German units	2 movement points (MP)
Soviet units	3 MP
Rumanian units	4 MP

A hasty attack cannot be executed if the unit lacks sufficient movement points. More than one hasty attack may be conducted in a single Player Phase if movement points are available.

Hasty attacks are resolved using the normal combat rules. The unit or stack executing the hasty attack may not combine with any other friendly units that may be adjacent to the target hex.

If the defending hex is vacated, the active units must advance into the vacated hex. If the active units have movement points remaining, they can continue to move and can execute additional hasty attacks. If the defender remains in the original hex, no advance after combat is possible but the active units can continue to move and execute additional hasty attacks if sufficient movement points remain. Each subsequent hasty attack on the same defending hex still requires the attacking unit to pay the movement points required to enter the defender's hex and those required for a hasty attack, but not the movement points required to enter an enemy zone of control. However, if the moving units retreated to satisfy combat losses or were disrupted, then their movement ends. If these results were taken as strength point losses, the active unit or stack can continue to move until its movement points are expended.

A defending stack may be subjected to any number of hasty attacks during a single Player Phase.

9.0 Stacking

(9.1) Each unit has a stacking value. The maximum number of units per hex is regulated by these values. Note that some units have a different stacking value when they are at reduced strength. Air units and game markers stack freely.

(9.2) No more than 18 stacking points may occupy a single hex.

(9.3) Stacking limits only apply at the end of each movement segment, immediately before a hasty attack is conducted, and at the conclusion of any combat. Any number of units may traverse a hex between these points in the Player Phase. If a hex remains overstacked at the end of a movement or combat segment, the owning player must displace sufficient stacking points to an adjacent hex to bring the stack within required limits. Units can be displaced more than one hex if necessary. Displaced units are immediately disrupted (see 13.0). Units displacing through enemy ZOCs are treated as if they are conducting a retreat through enemy ZOCs (see 11.7). If units are unable to displace from a hex to bring it back to within stacking limits, any excess stacking points are immediately eliminated.

10.0 Zones of Control

(10.1) Most units possess a zone of control (ZOC) which extends into all six adjacent hexes. ZOCs do not extend across major river hexsides or major river bridges. The following units do not possess ZOCs:

- Headquarters units
- Company sized units
- Disrupted units.

(10.2) Effects of ZOCs on movement

Movement costs to enter a ZOC. Units must pay an additional two movement points to enter an enemy ZOC.

Artillery class units may only enter an enemy ZOC if a friendly unit is already present or if accompanied by a non-artillery friendly unit.

Movement costs to leave a ZOC. Units must pay an additional movement point to leave an enemy ZOC. A unit may move directly from one enemy ZOC to another if it possesses sufficient movement points.

(10.3) Supply cannot be traced through enemy ZOCs. However, friendly units negate enemy ZOCs for purposes of tracing supply.

(10.4) Detailed treatment of the effects of ZOCs on combat is provided in section 11.7.

11.0 Combat

(11.1) Combat is completely voluntary. Units must be adjacent to initiate combat (except artillery units). An attack made solely with non-adjacent units is bombardment (see section 12.0). There are two types of attacks: hasty and prepared. Both are against all defending units in a hex, not individual units. A player may initiate any number of hasty attacks against a defending hex in a single Player Phase, limited only by the units available and their movement point expenditure. However, each defending hex may only be subjected to a single prepared attack per Player Phase.

(11.2) Combat Sequence

Step 1 - the active player indicates which hex he will attack. He also selects a lead unit for the engagement and designates any eligible artillery units to conduct bombardment. If the German player has withheld Ju-87 units from the Air Phase, he may also designate these.

Step 2 - the inactive player also selects his lead unit and designates any eligible artillery units to conduct defensive bombardment.

Step 3 - both players conduct counterbattery fire with eligible artillery units.

Step 4 - the inactive player now conducts defensive bombardment with designated units that survived counterbattery fire.

Step 5 – the active player conducts bombardment with artillery and air units. If present, air units bombard separately from artillery units.

Step 6 – the inactive player conducts fire combat against adjacent enemy units with losses being applied immediately. (Exception: if the defending units are disrupted, the active player executes step 6 first. Surviving defending units then execute step 6).

Step 7 - the active player now conducts combat against adjacent units. Results are applied immediately.

Step 8 - if all defending units are destroyed or retreated, attacking units may advance after combat. Defending units may never advance after combat.

(11.3) Lead Units

Each player must select a lead unit for each engagement. This unit determines unit proficiency die roll modifications for the entire engagement. Lead units also take the first losses in any engagement. The lead unit, if possible, cannot be an artillery or headquarters unit. If these are the only unit types available, they may be designated as a lead unit. If during the combat sequence the original lead unit is disrupted by bombardment, the affected player can designate another lead unit.

(11.4) Combat Resolution

Several other factors affect combat resolution. These will cause either a column shift on the Combat Results Table (CRT) or a die roll modification. Column shifts always result in left column shifts, favoring the defender. DRM's may accrue to either side. Each player adds the total number of positive and negative modifications and uses the net to modify all die rolls in the engagement.

Column shifts are result of terrain. These shifts are always in favor of the defender, generating left column shifts. Column shifts are indicated on the Terrain Effects Chart. All terrain effects are additive.

DRMs are produced in the following cases (also see Combat Modifications Chart):

- **Initiative.** The player with the initiative has a +1 DRM if he has held the initiative for three consecutive turns and a +2 DRM if the initiative is held for five consecutive turns (see section 6.3).
- **Unit proficiency.** Each unit has a unit proficiency rating, representing the unit's training, steadfastness, morale, general cohesiveness, and efficiency. During any prepared or hasty attack, use the proficiency rating of the attacking and defending lead units. The player with the superior proficiency rating receives a combat bonus for fire combat as indicated below:

+1 or +2 = +1 DRM

+3 or +4 = +2 DRM

>+5 = +3 DRM.

No DRM is awarded if the players have the same proficiency rating.

- Armor Superiority. Both players receive a +2 DRM if a tank, panzer or assault gun unit is engaged in the combat and the other player has no such units present. Several other types of units negate Armor Superiority, but cannot generate it themselves: German self-propelled antitank guns, antitank units and antiaircraft units and Soviet antitank units.
- Combined Arms. The German player (only) receives a combat bonus of +1 DRM if any of his attacking stacks combines an armor or assault gun unit with a mechanized or motorized infantry unit. These units must be in the same hex to generate this bonus, not just committed to the same attack.
- Multi-hex attacks. If the attacking player has units in a multi-hex prepared attack, DRMs are awarded as indicated below:
 - 4 hex attack = +1 DRM
 - 5 hex attack = +2 DRM
 - 6 hex attack = +3 DRM.
- Supply. Adverse supply conditions result in a -1 or -2 DRM. See section 15.0.
- Assault Engineers. A +1 DRM is awarded if an engineer unit is involved in an attack against entrenched enemy units (see section 16.2).

(11.5) Combat Results

The first number on the combat result indicates any mandatory strength point losses. The second number is the optional step loss. Mandatory strength point losses are implemented immediately.

The optional result may be implemented as a retreat or a proficiency check. If the affected player elects to take the optional result as a retreat, he retreats all units in the combat the number of hexes equal to the optional result. He can also elect to make a proficiency check; doing so will allow units to stay in place if they are defending or permits them to press home an attack in spite of losses. A proficiency check is made by rolling one die. If the roll is equal to or less than the proficiency factor of the lead unit, the check is passed. If the roll is higher, the check fails.

The table below indicates the choices available to satisfy an optional result and the effects of a proficiency check:

Attacker options

- No check: The affected unit or stack must retreat the number the hexes indicated. If conducting a hasty attack, the unit's movement ends.
- Failed check: The affected unit or stack loses the number of strength points indicated, may not fire during this combat (unless it had already fired), may not advance after combat, and is disrupted. Place a disrupted marker on the unit.
- Passed check: The affected unit or stack loses the number of strength points indicated but may conduct combat and advance after combat.

Defender options

- No check: The affected unit or stack must retreat the number of hexes indicated.
- Failed check: The affected unit or stack must lose a number of strength points equal to the optional result and is disrupted. Place a disrupted marker on the unit.

- Pass check: The affected unit or stack loses the number of strength points indicated and remains in place.

(11.6) Loss Priorities

After determining the number of strength points to be lost, they are distributed using the following priorities:

- The lead unit always loses the first point.
- If loss points still remain, additional loss points are assessed against all other armor and infantry class units present. The owning player distributes them at his discretion so long as each unit present takes at least one loss point. No unit may be eliminated until every unit has taken at least one strength point loss.
- If loss points still remain, each artillery class unit loses one point.

If loss points still remain, the loss priority cycle is repeated. HQ units, if present, lose a strength point (which would eliminate them), only after every other unit in the hex has been eliminated.

(11.7) Retreats

Units are retreated by the owning player. Units must retreat the full number of hexes required measured from the firing enemy unit. If terrain prevents a unit from retreating, it must stand and take optional losses in strength points and suffers a disruption. If possible, units must retreat towards a friendly supply source. Units can only retreat through an enemy zone of control if no other path is available.

Units cannot retreat across major rivers. Infantry class units may retreat across an unbridged minor river hex with no additional losses. Armor and artillery class units may retreat across an unbridged minor river hex but lose one strength point per river hexside crossed. This loss is assessed against the entire stack, not each unit. Units may retreat across bridges with no losses. However, if these bridges are in an interdiction zone, the retreating unit or stack loses a number of strength points equal to the current movement point penalty in effect from the interdiction.

Units forced to retreat off the edge of the map are not eliminated. If possible, they return on the exit hex during their next Player Phase. If this hex is enemy occupied, the affected units return at the nearest hex not in an enemy ZOC and closest to their supply source.

If no other path of retreat is available, units may retreat through enemy ZOCs. In this case, the enemy units whose ZOCs have been entered may conduct a fire attack against the retreating units. A unit cannot end its retreat in an enemy ZOC - it must continue to retreat until it reaches a non-controlled hex, even if this means retreating farther than the indicated result. If a unit is surrounded and suffers an optional result, it must make a proficiency check.

Procedure. When retreating units enter an enemy ZOC, those units whose ZOCs have been entered may conduct a special fire combat. The firing player designates fire against the retreating unit or stack, without reference to any combat modifications. All results obtained against the target unit or stack are taken as strength point losses. Retreating units may not return fire.

(11.8) Advance After Combat

If all units in a hex are eliminated or forced to retreat, all attacking non-artillery class units can advance after combat. This option must be exercised immediately before the next combat is resolved. The length of the advance is equal to the distance of the required retreat. When a unit or stack is eliminated, the firing player can advance a distance equal to the total of any unfulfilled mandatory and/or optional results.

Advance after combat is calculated in hexes, not movement points. The first hex entered must always be the hex vacated by the eliminated units. Advances after the first hex need not follow the path of retreat, but may be conducted in any direction depending on the unit type of the advancing units (see below).

If following the exact path of retreat, an advancing unit ignores all enemy ZOCs. If the advancing unit deviates from the path of retreat, it may have to stop upon entering the first enemy zone of control.

Units have different capabilities to advance after combat:

- Armored units may conduct an advance up to the maximum number of hexes permitted. If they deviate from the path of retreat, Soviet armored units must stop upon entering the ZOC of a German armored or artillery class unit. German armored units may deviate from the path of retreat and are forced to stop only if they enter the ZOC of a Soviet armored unit.
- Motorized units may conduct an advance up to the maximum number of hexes permitted, but must stop at the first enemy ZOC entered if they deviate from the path of retreat.
- Infantry class units may only enter the vacated hex of the defender. Cavalry units may advance up to two hexes if not moving through enemy ZOCs.

No unit may advance across an unbridged major or minor river hexside. Units may advance across bridge hexsides.

If all units in a hex are destroyed by bombardment before a planned hasty attack is conducted, the attacking units advance into the defender's hex and can continue to move if any movement points remain. If all defending units are destroyed by bombardment before a planned prepared attack is conducted, the attacking units roll an unmodified attack on the Combat Results Table and take the total of all mandatory and optional results as an advance; at a minimum, attacking units always advance into the defender's hex.

Comprehensive combat example of play:

The German player announces he will mount a prepared attack against Soviet units defending an elevated hex. The Soviet defenders include a 5-5 infantry regiment (proficiency rating 5) stacked with a 4-8 antitank regiment (proficiency 4). The Germans are attacking from two hexes; one with a 6-12 and a 5-12 motorized infantry battalion and another hex with a 12-10 tank battalion stacked with a 7-10 mechanized infantry battalion.

The German player designates the 12-10 tank battalion (proficiency 8) as his lead unit. He designates two artillery units within range to support the attack with a bombardment.

The Soviet player selects the 5-5 infantry regiment as his lead unit. He designates a 4(3)4 artillery regiment to support the combat.

There is no counterbattery fire (no other artillery units are in range to do so) so the Soviet player uses his supporting artillery unit to conduct defensive bombardment. He decides to bombard the hex without the German tank battalion to avoid the one column shift for firing at

armored targets. He selects the top unit of the other stack (the 6-12 motorized battalion) to bombard and uses the 3 column on the Bombardment Table with no die roll modifications. The roll is a "six" which results in a "No Effect".

Now the German player conducts bombardment. With seven factors firing, he uses the 7 column on the Bombardment Table choosing to attack the top Soviet unit (the 5-5 infantry regiment). The die roll of "six" gives a result of 1 which is immediately applied to the target unit.

Now the Soviet player conducts regular fire combat. He can fire at either of the attacking stacks - he chooses to fire at the armored stack. He now totals his strength points. The infantry regiment fires with 4 (after its 1 point loss from the bombardment) and the antitank regiment with 4. His total is 8 so the 8 column on the CRT is used. There are no modifications since the firing units are in supply and the unit proficiency of the Soviet lead unit is inferior to the German's lead unit which means no unit proficiency DRM is awarded to the Soviet player. A roll of "10" is modified to 10 which yields a result of 1/3.

The German player must distribute the one mandatory result as a strength point loss. This must come from the lead unit, the tank battalion. The German player elects to make a proficiency check. Using the proficiency rating of the lead unit, a single die is rolled. The result is "eight" which is equal to or less than the lead unit's proficiency rating so the check has been passed. This means that the optional result of "3" has to be taken as strength point losses. However, the German units can still conduct combat and advance after combat. For the losses, the German player must take the first from the lead unit, the second from the accompanying 7-10 mechanized infantry battalion, and the third again from the lead unit.

The German player can now conduct his fire combat. Modifications to the attack are in order. The lead German unit has a greater proficiency than the lead Soviet unit (8 vs. 5), so a +2 DRM is awarded. The attacking stack with a tank battalion and an infantry battalion generates a +1 combined arms DRM—a total of 3 DRMs will be used. Now the total strength of the German units is calculated--26. The German units will fire on the 20 column of the CRT because the defending units are on elevated terrain (this moves the attack from the 25 column to the 20 column). The German roll of "seven", modified to ten, gives a 2/4 result.

The Soviet player must first allocate the mandatory strength point losses. The first goes to the lead unit (the infantry unit) and the second goes to the antitank regiment. For the optional result, the Soviet player elects to retreat and surrender the elevated hex. During his retreat, the Soviet player has to enter the ZOC of the 6-12 and 5-12 German motorized infantry battalions. Those two units fire at the retreating Soviet stack with a strength of 11 with no modifications. Rolling on the 10 column of the CRT, a "five" gives a result of -1. The Soviet stack must lose a single combat point as all losses, mandatory and optional, are extracted as step losses during retreats. The Soviet player subtracts one point from his infantry regiment and completes the retreat of four hexes. The German player now conducts an immediate advance after combat. All attacking units can advance a maximum of four hexes; the motorized units must stop upon entering the first Soviet ZOC but the panzer and mechanized infantry battalions can advance four hexes in any direction (after entering the defender's hex) unless they encounter a Soviet tank unit.

12.0 Artillery

(12.1) Any artillery unit with a range factor can conduct bombardment. These units are the only ground units that do not have to be adjacent to enemy units to execute combat. Artillery units can also conduct regular fire combat, but cannot conduct both in the same Player Phase (unless the unit is defending, see below). Other special characteristics of these units include:

- They are restricted when moving into enemy ZOCs (see section 10.2)
- They conduct one bombardment mission (or counterbattery mission) per game turn. However, they may not bombard if adjacent to any enemy unit unless the artillery unit is stacked with a friendly non-artillery unit. An artillery unit may, of course, conduct defensive fire combat against any attacking enemy unit.
- If an artillery unit is engaged in fire combat without being stacked with a non-artillery unit, the artillery unit fires with only one-half its factors. All results suffered by the artillery unit are treated as mandatory results.

(12.2) Artillery combat is conducted during either Player Phase. Whenever an artillery unit conducts bombardment or a counterbattery mission, it is marked with a fired marker.

(12.3) Artillery units that have already fired have their movement allowance halved. German artillery units can move up to one-half of their movement allowance and still conduct bombardment with half their factors (use a “Moved” marker to indicate such a unit). Soviet units that use any movement points or German units that move more than half of their movement allowance have a fired marker placed on them. The exception is rocket artillery that can move its full movement allowance before or after conducting bombardment. Artillery units may never move adjacent to an enemy unit and then engage in direct fire combat in the same Player Phase; however if a German artillery unit began the phase with a stack which is conducting a hasty attack, it may conduct bombardment in support of the hasty attack, movement points permitting.

(12.4) Artillery Missions and Procedures

While artillery units may initiate only one bombardment mission per turn, they may always conduct defensive fire in response to an enemy hasty or prepared attack. Additionally, artillery units may conduct fire combat at units retreating through their ZOCs as many times as the situation arises in a turn. This does not result in a fired marker being placed nor does a fired marker prohibit this kind of fire. Artillery units can perform one of the following missions during each game turn:

Bombardment. Artillery units can conduct bombardment during either Player Phase. All targets must be within range. To determine range, the hex of the firing unit is not included, but the target hex is. For defensive bombardment, range is measured to the friendly unit under attack. Additionally, targets must be within two hexes of a friendly unit. The hex being bombarded does not have to be the subject of a hasty or prepared attack during the same Player Phase.

Procedure. Pick a target hex that is within the range of the artillery unit but within two hexes of a friendly unit. Each bombardment is directed at a single unit. If using the fog of war rules, hidden enemy units in a stack may be bombarded but the actual target unit is chosen at random. Headquarters units may not be subjected to bombardment. If selected at random, pick another unit in the stack or the top unit if the headquarters unit is the only hidden unit. Individual artillery units may not split their fire against different units in the hex, but the fire of more than one

artillery unit may be combined against a single enemy unit. After the inactive player conducts counterbattery fire (see below), determine the total bombarding factors and find the corresponding total at the top of the bombardment table. Roll a single die and cross-index the die roll to find the result.

Bombardment is more effective if conducted against a target adjacent to a friendly (or spotting) unit. If no spotting unit is available, there is a -1 DRM.

If successful, artillery bombardment can inflict strength point losses and disrupt target units. A number result equals the number of strength points lost by the target unit. A "D" result, disrupts the target unit.

Counterbattery. Artillery units (in this case, artillery units really means artillery units; mortar and rocket units may not conduct counterbattery fire—nor can they be subjected to counterbattery fire) can be designated for counterbattery fire. The results of the counterbattery attack are implemented immediately. A successful result will prevent the enemy artillery unit from carrying out its assigned mission.

Procedure. At any time during either Player Phase when either player indicates that one of his artillery units will fire, the opposing player may allocate counterbattery against the firing unit. The player must have an artillery unit in range (which can be beyond the two hex limit from a friendly units used for bombardment) and that unit must pass a proficiency check. If successful, the player conducting counterbattery totals the number of attacking factors (more than one unit may participate) and finds the appropriate column on the counterbattery table. An "S" result indicates that the enemy artillery unit has been suppressed and a fired marker is placed on the affected unit. Numerical results indicate the number of strength points lost by the target unit. Units conducting counterbattery fire have a fired marker placed on them.

If a counterbattery unit fails its proficiency check, that unit may try again when another enemy artillery unit is used. It may continue attempting counterbattery missions until it passes a proficiency check. A failed attempt do conduct counterbattery fire does not result in a fired marker being placed on the unit.

Example of play: Two Soviet 51st Army artillery units (total of 10 factors both with a proficiency of four) are designated for counterbattery duties when the German player states that he will use an artillery battalion to support a key attack. However, only one of the units passes its proficiency check and can actually fire. This unit (strength of six) rolls a "seven" on the counterbattery table that suppresses the German unit. The German unit cannot bombard and both the firing and target unit have a "fired" marker placed on them .

13.0 Disruption

As a result of being displaced, bombardment or regular fire combat, a unit may become disrupted. Once disrupted, a unit suffers the following effects:

- Its movement allowance is halved
- It loses its zone of control
- Disrupted units may not conduct hasty or prepared attacks
- If defending, they do not fire first in the combat sequence. This is the only time that attacking units fire first.
- It cannot fire at enemy units retreating through an adjacent hex.

If a stack of units contains both disrupted and undisrupted units, the entire stack is not considered to be disrupted. Such a mixed stack retains its ZOC and its ability to fire first (with the entire strength of the stack) in defensive combat.

When disrupted, place a "D" marker on the unit. This may not be removed until the next Recovery and Replacement Phase (see section 17.2).

14.0 Supply

(14.1) In order for units to move and fight at full effectiveness, they must be able to trace a supply line to a valid supply source. Each unit is always in one of three supply modes, regular supply, organic supply, or out of supply. Supply is determined in the Supply Determination Segment in each Player Phase

(14.2) Regular Supply Status

Units are in regular supply if they can trace a valid supply line to a supply source. Units trace supply through headquarters units.

Soviet supply. For Soviet units, a valid supply line includes three segments. The unit must first trace a supply line to its division (or corps headquarters in the case of tank and mechanized corps) that cannot exceed eight hexes for non-mechanized units and fifteen hexes for tank and mechanized corps. The second segment is traced from the division/corps headquarters to its army headquarters. This portion of the supply line can be of any length. In order to be part of a valid supply chain, army headquarters must be able to trace a supply line of any length to the north and east (behind Soviet lines) map edges.

Soviet independent units trace the first segment of supply directly to any division or corps headquarters, and then to an army headquarters.

The Soviet 4th Cavalry Corps and 1st and 13th Guards Rifle Corps headquarters act as Army headquarters for their subordinate units for supply purposes. These Corps headquarters trace supply to friendly map edges as do Army headquarters.

Rumanian supply. For Rumanian units, a valid supply line includes three segments. The unit must first trace a supply line to its division headquarters that cannot exceed eight hexes. The second segment is traced from the division to its corps headquarters. This portion of the supply line can be of any length. In order to be part of a valid supply chain, corps headquarters must be able to trace a supply line of any length to the south or west (south of the Don River) map edges.

Rumanian independent units trace the first segment of supply directly to any division headquarters that in turn traces supply to its corps headquarters.

German supply. German units trace supply to their division headquarters. This supply line cannot exceed twenty hexes. The division headquarters must in turn trace a supply line of any length to the south or west (south of the Don River) edges. German independent units may trace supply directly to any division headquarters.

(14.3) Organic Supply Status

Units that were in regular supply the preceding turn, but that now do not possess a valid supply path are considered to be using organic supply. Units in an organic supply status are assumed to be consuming stocks carried with the units and are marked with an Organic Supply marker.

(14.4) Out of Supply Status

Units which were drawing organic supply the preceding turn, and which still cannot trace a valid supply path are out of supply. These units flip their Organic Supply marker over to the Out of Supply side.

(14.5) Effects of supply

Movement:

Regular Supply	- no effect.
Organic Supply	- no effect.
Out of Supply	- one-half movement.

Combat:

Regular Supply	- no effect.
Organic Supply	- -1 DRM for all combat, including artillery bombardment.
Out of Supply	- -2 DRM for all combat, including artillery bombardment.

Units never are lost or suffer attrition due to their supply status. They may remain out of supply indefinitely.

15.0 Entrenchments

(15.1) How to Build Entrenchments

All undisrupted units (except company-sized and headquarters) can build entrenchments. Units do not have to be in supply to build entrenchments. At the start of the unit's Player Phase, each building unit must remain in place, not moving or engaging in combat. If this occurs, place an "Entrenchments Under Construction" marker. If the building unit becomes disrupted or comes under prepared attack (not bombardment), then the marker is removed. At the start of the unit's next Player Phase, the marker is turned over to its "Entrenched" side.

(15.2) Entrenchment Effects

Units must expend half of their movement points to leave entrenchments.

Units in an entrenchment gain a one column shift to the left for all combat, including hasty and prepared attacks as well as bombardment.

(15.3) Removal of Entrenchments

An entrenched marker remains in place as long as a friendly unit remains in the hex. Any friendly unit moving into the hex gains the benefit of being entrenched. Whenever the hex is vacated of all friendly units the entrenchment marker is removed.

16.0 Special Units

(16.1) Antiaircraft Units

All air units conducting bombardment subtract one from their die roll if attacking a hex where an enemy antiaircraft unit is present. Air units conducting interdiction total the number of antiaircraft units present in the potential interdiction zone and modify their die roll by 1- for each unit present.

Some German antiaircraft units have an asterisk after their combat factor. These units contain the famous 88mm antiaircraft guns that proved very effective when used in a ground role against Soviet tanks. Anytime a German antiaircraft unit with an asterisk is in a hex attacked by a Soviet force that includes a tank unit, an additional mandatory result is added to the normal result obtained by the German player. This mandatory step loss must be taken against a Soviet tank unit present in the attack.

(16.2) Engineer Units

Engineer units possess the special capabilities described below:

Assault combat: During combat against a defender in entrenchments, the attacking force receives a +1 DRM during combat resolution if an engineer unit is present. If this capability is used, the engineer must be the attacking force's lead unit.

Bridging: Soviet and German engineer units can build and destroy bridges. To build a bridge, an engineer unit must begin its Player Phase on the desired hex and remain there throughout the entire phase. At the end of the phase, the bridge is completed if the building unit passes a proficiency check. To destroy a bridge, the engineer unit must move to the bridge and expend six movement points if motorized and three movement points if non-motorized. Markers are provided for new and destroyed bridges.

(16.3) German Relief Convoy

The three markers provided represent 800 vehicles carrying approximately 3000 tons of supplies bound for the beleaguered Sixth Army. The following rules apply to these units:

- They move as motorized units with the movement factor indicated on the counter.
- They may never enter an enemy ZOC even if friendly units are present.
- Convoy markers have no stacking value, but there may never be two convoy markers in the same hex. Additionally, any other unit travelling through a hex occupied by a convoy marker may not do so at the road rate.
- They have no combat value or capability to absorb loss requirements. If a Soviet unit moves through a hex occupied solely by a convoy, the convoy is destroyed and cannot be replaced. The movement of the convoy is important for victory determination. See section 19.0.

17.0 Recovery and Replacement Phase

(17.1) During this phase, disrupted units may attempt to recover. Additionally, both players receive and immediately assign replacements to augment the strength of eligible units.

(17.2) Disruption removal

Each disrupted unit attempts to become undisrupted separately. To remove its disruption marker, the unit must pass a proficiency check. If the unit is out of supply, add one to the die roll.

(17.3) Replacements

There are two types of replacements, scheduled and combat attrition. Scheduled replacements appear on the turn record track. These are always infantry class replacements.

The second type of replacements is combat attrition. During each turn, the strength point losses for each nationality are recorded. For replacement purposes, losses are tracked by three types—armor, infantry and artillery. Once the loss totals are known, players use the calculations below to determine how many replacement points are available:

Soviet

losses $\times .25$ = replacement points available.

German

losses $\times .50$ = replacement points available.

Rumanian

losses $\times .25$ = replacement points available.

Use the rounding convention on all resulting fractions. Indicate the calculated number of replacement points available to nationality with the markers provided.

(17.4) Assignment of Replacements

Infantry replacements may only augment infantry class units. Armor replacement points may only augment armor class units. Artillery points may only augment artillery class units. If not used immediately during the Replacement Phase, they are lost.

To receive replacements, a unit must be in a regular supply status. Units can receive an unlimited number of replacements per turn, up to their original strength. Simply flip the unit or modify its strength marker to reflect its new strength.

Units that have been destroyed may reenter play through the use of replacement points. Units returned in this manner enter during the Replacement Phase and are placed on or adjacent to their headquarters unit, but not in an enemy ZOC. If the headquarters unit is in an enemy ZOC, the unit may be placed adjacent to any other unit of the same division. Independent units may use any headquarters. However, if a unit is destroyed during the turn and is not reentered into play during the next Replacement Phase, it is considered permanently lost and is removed from play.

Headquarters, if lost, automatically return during the next Replacement Segment and appear adjacent to any of its subordinate units. No replacement points are expended.

Example of play: The Soviet 302nd Rifle Division bore the brunt of the German attack on turn one and suffered heavy losses. Altogether, nine infantry strength points (including an entire 5-5 infantry regiment) and one weapons class strength point were lost. During the Replacement Segment it is determined that the 302nd Division will receive two infantry replacement points ($9 \times .25 = 2.25$ rounded down to 2) and no artillery replacement points ($1 \times .25 = .25$ rounded down to 0). The Soviet player decides to allocate one of the infantry points to one of the division's infantry regiments still in play and takes the other point to reconstitute the destroyed infantry regiment. This unit is placed on or adjacent to the division HQ unit.

18.0 Special Rules

(18.1) Fog of War

In order to preclude Operation Winter Storm from becoming an exercise of opportunism by two players possessing perfect intelligence on enemy units, a method of introducing some of the uncertainty and tension of war is required. These rules are an attempt to interject what is generally known as the "fog of war":

- Neither player may look at an enemy unit's strength marker except during combat resolution.
- A stack of units must display its largest unit, measured by its original strength, on top. The owning player chooses which unit will be displayed if more than one unit possesses equal strength. Units under the largest (top) unit are hidden.
- If the unit is entrenched, it is hidden, even if it is the top unit.
- Players may not make any types of notes to track enemy strength or locations.

Players can attempt to bombard units even if their exact identity is not known. If more than one hidden unit is stacked together, the bombarding player randomly selects which unit will be bombarded (simply have the owning player place them in some sort of container and let the bombarding player pick one).

During combat resolution, the identity and strength of all engaged units is revealed to the enemy player.

19.0 Scenarios

Operation Winter Storm has four scenarios. The first, We are Coming, simulates the first three days of the German relief attack and serves as a good introductory scenario. The second, Hoth's Last Gasp, covers the crucial period from 16-19 December 1942 when the 57th Panzer Corps made its last attempt to break through to the Sixth Army. There are also two campaign scenarios. The first covers the entire period of the relief attack from 12-23 December. Finally, there is a campaign scenario variant with optional German units that allows the players to explore the results of a maximum German effort.

19.1 We are coming!

Scenario start: AM 12 December

Scenario end: PM 14 December

19.11 Soviet set-up. The Soviet player sets up first.

a. Soviet ground units: (no units start entrenched, reflecting the tactical surprise gained by the Germans and the lack of defensive preparations by the Soviets)

51st Army

Army HQ unit	within 1 hex of hex 4030
4th Cavalry Corps HQ unit	within 2 hexes of hex 1836
61st Cavalry Division	within 5 hexes of start line between hexes 1045-2042
81st Cavalry Division	within 2 hexes of hex 1832
302nd Rifle Division	within 5 hexes of start line between hexes 2142-2840
126th Rifle Division	within 5 hexes of start line between hexes 2940-3747
91st Rifle Division	within 5 hexes of start line between hexes 3847-4842

Independent Units:

254th Tank Brigade (2 units) hex 4514

51st Army independent units (5 Antiaircraft regiments, 3 engineer battalions, 4 antitank regiments, 1 mortar regiment, 1 antitank brigade, 1 artillery regiment, 1 Guards artillery brigade, 2 Guards rocket artillery regiments and 1 Guards rocket artillery battalion) may be attached to any formation within allowable limits

85th Tank Brigade (2 units) and the 149th Antitank Regiment which must be assigned to the 4th Cavalry Corps or the 81st Cavalry Division).

Reserve units

These may not move until:

- * Released per the turn record track.
- * Attacked by German or Rumanian ground units.
- * Enemy units end a Player Phase within 5 hexes.

Once released, they may move without further restriction.

4th Mechanized Corps (16 units)	within 2 hexes of hex 1817
13th Tank Corps (15 units)	within 2 hexes of hex 3929
235th Tank Brigade (2 units)	hex 3812
234th Tank Regiment (1 unit)	hex 3912
38th Rifle Division (5 units)	within 1 hex of hex 3711
87th Rifle Division (5 units)	within 1 hex of hex 3816
300th Rifle Division (5 units)	within 1 hex of hex 3410
4th Guards Rifle Division (5 units)	within 1 hex of hex 2503
315th Rifle Division (5 units)	within 1 hex of hex 1915
7th Tank Corps (12 units)	within 2 hexes of hex 1915

b. Soviet air units: 8th Air Army (all ready at game start)

235th, 268th, and 287th Fighter Divisions (IAD)

202nd and 226th Ground Attack Divisions (SHAD)

270th Bomber Division (BAD)

289th Mixed Division (SAD)

c. Reinforcements: See Turn Record Track

19.12 German set-up. The German player sets up second.

a. German ground units:

- 6th Panzer Division, less its reconnaissance battalion (total 15 units). Starts within 3 hexes of the start line between hexes 1046-2043. 6th Panzer Division reconnaissance battalion begins in hex 2641.
 - 23rd Panzer Division. The German player may select units totaling 23 stacking points from the division's 15 total units. Units selected start within 2 hexes of hex 2841. The remaining units go into the division's force pool and enter according to the schedule on the turn record track.
 - The 57th Panzer HQ unit and the 3 convoy units begin within 1 hex of 1652.
 - The following independent units may start within any of the start areas above: Lehr and 651 Motorized Engineer Battalions, II/Lehr and 861 Antiaircraft Battalions.
- b. Rumanian ground units:
 VI Corps
- HQ unit and corps' 2 independent units - within 1 hex of hex 1945.
 - 8th Cavalry Division (6 units) - within 2 hexes of start line between hexes 2942-3450.
 - 18th Infantry Division (8 units) - within 2 hexes of start line between hexes 2143-2541.
- VII Corps
- HQ unit - hex 4053
 - 5th Cavalry Division (6 units) - within 2 hexes of start line between hexes 3550-4047
 - 4th Infantry Division (10 units) - within 2 hexes of start line between hexes 4343-4843
- Independent units
- 7th Motorized Artillery Regiment - in any VII Corps unit area
 - Gruppe Bischof - hex 4146
 - 57th Cavalry Battalion - hex 4246
 - 57th Engineer Battalion - hex 4443
- c. German air units: Elements of IV and VIII Fliegerkorps
 II Gruppe/JG 52
 I and II Gruppe/ZG 1
 I and II Gruppe/SG 1
 I, II and IV Gruppe/STG 2
 I, II and IV Gruppe/STG 77
 I and II Gruppe/KG 51
 I and II Gruppe/KG 55
 All start in a ready status.
- d. Reinforcements: See Turn Record Track
- e. Conditional Reinforcements:
- Group Christea (Rumanian VII Corps - 4 units) enters on hex 4831 following the turn when VII Corps units gain control of hex 4831.

19.13 Victory Conditions

The German player gains a decisive victory if he controls Verchne-Kumskij (hex 2428) at scenario end. He gains a marginal victory if he has 75 stacking points across the Aksai River between hexes 2331 and 3431. The Soviet player gains a decisive victory if he holds Verchne-Kumskij and there are less than 50 stacking point across the Aksai between hexes 2331 and 3431. The Soviet player gains a marginal victory of he holds Verchne-Kumskij. *Historical*

note: In the actual battle, the Germans successfully pushed the bulk of the 6th and 23rd Panzer Divisions across the Aksai but were unable to hold Verchne-Kumskij, thus gaining a Marginal Victory.

19.2 Hoth's Last Gasp

Scenario start: AM 16 December

Scenario end: PM 19 December

19.21 Soviet set-up. The Soviet player sets up first.

a. Soviet ground units: (some units with reduced strength; indicated with -X arm (armor points), -X inf (infantry points, and -X art (artillery points). Losses are allocated in any way desired among the units of the parent formation.)

51st Army

Army HQ unit	anywhere north of hexrow xx24
4th Cavalry Corps HQ unit	hex 1436
61st Cavalry Division (-4 inf, -1 art)	within 2 hexes of 1935
81st Cavalry Division (-2 inf)	within 2 hexes of 1537
91st Rifle Division (-1 inf)	within 4 hexes of 4441 but behind 12 December start line
126th Rifle Division (-4 inf)	within 2 hexes of 3836
302nd Rifle Division (-8 inf, -2 art)	within 1 hex of 3433
13th Tank Corps (-5 arm, -9 inf)	within 1 hex of 3431, 3428, and 3127
4th Mechanized Corps, 235th Tank Brigade, 234th Tank Regiment, 254 th Tank Brigade (-10 arm, -12 inf, -3 art)	within 1 hex of 2129, 2428, 2728
87th Rifle Division	within 1 hex of 3223
300th Rifle Division	within 1 hex of 1721

Independent Units: (85th Tank Brigade (2 units) , 5 antiaircraft regiments, 3 engineer battalions, 5 antitank regiments, 1 mortar regiment, 1 antitank brigade, 1 artillery regiment, 1 Guards artillery brigade, 2 Guards rocket artillery regiments and 1 Guards rocket artillery battalion) start in any of the areas above. Subtract 2 armor points, 1 infantry point, and 10 artillery strength points from any combination of these units.

Reserve units

These may not move until:

- * Released per the turn record track.
- * Attacked by German or Rumanian ground units.
- * Enemy units end a Player Phase within 5 hexes.

Once released, they may move without further restriction.

38th Rifle Division	within 1 hex of hex 3711
4th Guards Rifle Division	within 1 hex of hex 2503
315th Rifle Division	within 1 hex of hex 1915
7th Tank Corps	within 2 hexes of hex 1915

b. Soviet air units:

8th Air Army (4 units ready, 3 in flown box at game start)
235th, 268th, and 287th Fighter Divisions (IAD)

202nd and 226th Ground Attack Divisions (SHAD)
270th Bomber Division (BAD)
289th Mixed Division (SAD)

c. Reinforcements: See Turn Record Track

19.22 German set-up. The German player sets up second.

a. German ground units:

6th Panzer Division (-2 arm, -4 inf, -1 art) within 2 hexes of 2531 or 2334

23rd Panzer Division (-1 arm, -2 inf, -1 art) within 2 hexes of 3131 or 2937

17th Panzer Panzer Division – see turn record track

The 228th Assault Gun Battalion, Lehr and 651 Motorized Engineer Battalions, II/Lehr and 861 Antiaircraft Battalions set up with any division above.

The 57th Panzer HQ unit and the 3 convoy units begin within 5 hexes of 1652

b. Rumanian ground units:

VI Corps

- HQ unit and corps' 2 independent units – within 2 hexes of 2043

- 8th Cavalry Division (-1 inf) within 2 hexes of 3141

- 18th Infantry Division (-1 inf) with 1 hex of 1941

VII Corps

- HQ unit – hex 4146; 4 independent units (7th Motorized Artillery Regiment, Gruppe Bischof, 57th Cavalry Battalion, 57th Engineer Battalion) within 3 hexes of 4146

- 5th Cavalry Division (-1 inf) within 2 hexes of 3542 but south of Aksai River

- 4th Infantry Division – within 2 hexes of start line between hexes 4343-4843

c. German air units: Elements of IV and VIII Fliegerkorps

II Gruppe/JG 52

I and II Gruppe/ZG 1

I and II Gruppe/SG 1

I, II and IV Gruppe/STG 2

I, II and IV Gruppe/STG 77

I and II Gruppe/KG 51

I and II Gruppe/KG 55

10 units are in a ready status, the remainder in the flown box.

d. Reinforcements: See Turn Record Track

e. Conditional Reinforcements:

- Group Christea (Rumanian VII Corps - 4 units). enters on hex 4831 following the turn when VII Corps units gain control of hex 4831.

19.23 Victory Conditions

German

Decisive Victory: 100 stacking points across the Myshkova River between hexes 2223 and 3524

Marginal Victory: 50 stacking points across the Myshkova River between hexes 2223 and 3524

Soviet

Decisive Victory: no German units across the Myshkova River between hexes 2223 and 3524

Marginal Victory: less than 30 German stacking points across the Myshkova River between hexes 2223 and 3524

Historical note: In the actual battle, the Germans managed to get elements of 6th Panzer across the Myshkova at Vasilevka (hex 3424) but with less than 30 stacking points resulting in a Soviet marginal victory.

(19.3) Operation Winter Storm

Scenario start: AM 12 December

Scenario end: AM 23 December

19.31 Soviet set-up. The Soviet player sets up first.

- a. Ground units. See section 19.11.
- b. Air units. See Section 19.11.
- c. Reinforcements: See Turn Record Track
- d. Soviet Ring Forces. These forces are set up within their designated starting areas adjacent to the Stalingrad Pocket, within 3 hexes of the pocket.
21st Army – Army HQ unit, 52nd Guards Rifle Division (5 units), 293rd Rifle division (5 units), 2 independent units
57th Army – Army HQ unit, 15th Guards Rifle Division (5 units), 422nd Rifle division (5 units), 143rd Rifle Brigade, 156th Motorized Rifle Regiment, 61st and 90th Tank Brigades, 35th Tank Regiment, 9 other independent units
64th Army - Army HQ unit, 36th Guards Rifle Division (5 units), 29th, 157th, 169th, and 204th Rifle divisions (each 5 units), 93rd, 96th, 97th, 149th, 154th, Rifle Brigades, 66th Naval Infantry Brigade, 38th Motorized Brigade, 56th Tank Brigade, 166th Tank Regiment, 7 other independent units

19.32 German set-up. The German player sets up second.

- a. German ground units. See Section 19.12.
- b. Rumanian ground units. See Section 19.12.
- c. German air units. See Section 19.12.
- d. Reinforcements: See Turn Record Track
- e. Conditional Reinforcements. See Section 19.12.
- f. German Sixth Army Attack Group: 7 units

19.33 Victory Conditions

Victory is determined at the conclusion of the 23 December AM turn. The victory point total of the German player is compared to that of the Soviet player. This net result (which may be a negative number), is compared to the table below to determine victory.

The German player gains victory points (VPs) for the following actions:

- 1 VP if any German unit advances to within 18 hexes of the Stalingrad pocket
- 1 VP if any German unit advances to within 5 hexes of the pocket

- 1 VP if during any time in the game a corridor is opened into the pocket (defined as a path of hexes free of Soviet units and their ZOCs (German units block Soviet ZOCs for this purpose). This is not awarded if the corridor exists at the end of the game.
- 1 VP for each relief convoy marker which enters the pocket.
- 5 VP if a corridor exists at the conclusion of the game.

The Soviet player gains victory points for the following actions:

- 1 VP for every 50 German strength points destroyed at the end of game. This is determined by taking the original strengths of German units and comparing them to their game ending strength levels. The difference is the number of strength points lost.
- 1 VP if the German player commences Operation Thunderclap and fails to open a corridor into the pocket.

Victory Table

<u>VP's</u>	<u>Result</u>
8	German decisive victory
5	German significant victory
2	German marginal victory
1	Draw
0	Soviet marginal victory
-1	Soviet significant victory
-2	Soviet decisive victory

Historical Note: In game terms, the battle resulted in a Soviet marginal victory with the Germans crossing the Myshkova River and approaching to within 18 hexes of the pocket to gain 1 VP and the Soviets badly battering the 57th Panzer Corps by destroying over 50 German strength points to gain 1 VP.

19.3 Operation Winter Storm--the German Maximum Effort Variant

This scenario depicts a maximum German effort to relieve the pocket. It allows the German player to employ formations and assets that were not present in the actual battle. In each case a plausible case can be made that they easily could have been used in the relief attack had an all-out effort been desired. To maintain game balance, there is a victory point penalty associated with the use of these forces.

This scenario uses all elements of scenario 19.3 with the following exception:

19.41 German Optional Units:

The following groups of optional forces are available:

- 57th Panzer Corps support units (2/40, 5/46, 602, and 844 Artillery Battalions, and 203 Assault Gun Battalion). The four artillery battalions were assigned to the relief attack from the First Panzer Army, then mired in the Caucasus Mountains. A combination of lack of

transport and delay in releasing the units by their original headquarters meant that they did not actually arrive in the area of the game map until after the failure of Operation Winter Storm. The assault gun battalion was an asset of the Fourth Panzer Army, which though available, was not employed. If this group of units is used, they start on turn one in any German set-up area.

- 15th Luftwaffe Field Division (5 units plus independent units from 7th Antiaircraft Regiment: 96, II/241, I/25, I/61 Antiaircraft Battalions). This unit was attached to the 57th Panzer Corps for Operation Winter Storm, but was not used because of concerns that its level of training was not satisfactory (not an unreasonable concern given the subsequent history of the ill-trained results of Reichsmarshal Goring's desire to build his own army). Players wishing to explore the impact of this unit may start it on turn one within one hex of hex 1652.
- 16th Motorized Division (17 units). Unlike the 15th Field Division, the 16th Motorized was an experienced formation that was near full strength. Since summer, this unit had been guarding the 4th Panzer Army's right flank patrolling the Kalmuck Steppe. While assembling his force to launch Operation Winter Storm, Field Marshal von Manstein requested that he be given this formation. His request was refused and the division remained in the vicinity of the town of Elista, only 48 hours from the battles to punch through to the Sixth Army. If this powerful formation is used, it may begin on AM 12 December anywhere behind the 12 December start line.

19.42 Victory Conditions

Victory is determined is in scenario 19.3 with the following addition:

The Soviet player receives 2 VP if the German player uses the 16th Motorized Division and 1 VP if the German player employs the 15th Field Division and the 57th Panzer Corps support units.

Historical Note: Players wanting to take this German Dream scenario one step farther may employ the 17th Panzer Division from the start of the scenario. Historically, this unit was withheld by Hitler to buttress the weak German defenses north of the area on the game map and was not committed until after the commencement of Operation Winter Storm.

20.0 Design Notes

Operation Winter Storm (OWS) simulates a desperate and dramatic battle. Following the encirclement of the Sixth Army by the Soviet attack launched on 19 November 1942, the Germans began to assemble a relief force. The operation that was finally mounted beginning on 12 December was a massive gamble. Only a single full-strength panzer division was available, supported by another weakened panzer division and Rumanian remnants, to cover the approximately 110 kilometers to the pocket and hold open a corridor for either supplies to be delivered or for the Sixth Army to withdraw through. Such a small force would have to strike quickly and hope to get close enough to the Sixth Army to allow it to break out

The actual attack opened on the morning of 12 December and gained immediate results. The armor of the 6th Panzer Division, with extensive air support, quickly sliced through the

under-strength and unprepared Soviet 51st Army. By the morning of the 13th, German elements had reached the Askai River in the vicinity of Zalivskiy and by that afternoon had seized Verche-Kumskiy. By that point the Soviets realized the intent and scope of the German attack and moved the 4th Mechanized and 13th Tank Corps to counter. In a series of swirling battles involving 160 German tanks and approximately 350 Soviet tanks, the German advance was halted and Verche-Kumskiy recaptured. The opening stages of the attack had seen the Germans gain a bridgehead across the Aksai and inflict serious losses on the Soviets.

The German advance resumed on 16 December when German armor unsuccessfully attacked dug-in Soviet infantry in the high ground north of their Askai bridgehead. On the 17th, again with heavy air support, the Germans attacked again, this time breaking through the Soviet defenses. Verchne-Kumskiy was again taken, this time by a night assault on 18 December. By 19 December, the Germans had reached the Myshkova River with the 6th and 17th Panzer Divisions and had established a bridgehead at Vasilyevka across a captured bridge. The Soviets battered the bridgehead with heavy attacks on 20 and 21 December. On 22 December the Germans had regained ground they had previously lost in the bridgehead and were preparing to launch the final attack that was hoped would bring them to the pocket. But events elsewhere on the fragile southern wing of the German front dictated that this attack would never occur. On 23 December, the 6th Panzer was withdrawn and with it any German hope of punching through to the pocket.

The failure of the German attack sealed the fate of the Sixth Army. Against the 51st Army, reinforced by the well-equipped and full-strength Second Guards Army, Operation Winter Storm never really had a chance of success. However, the advance of the 6th Panzer Division to within 26 miles of the pocket was a remarkable achievement. OWS gives players an opportunity to explore this dramatic battle.

One of the strengths of OWS is its order of battle. The German OB is drawn from the actual war diary of the Fourth Panzer Army (microfilmed copies of which are held in the National Archives) and from Manfred Kehrigh's incomparable Stalingrad (a German language account published in 1974). Aside from determining some of the unit strengths of the 17th and 23rd Panzer Divisions, little guesswork was required. Players curious as to the composition of a 1942 full strength Panzer Division are referred to the 6th Panzer that began the attack at almost full strength.

The Soviet OB was drawn primarily from Kehrigh's work and a superb Soviet 1943 General Staff study on the battle published in English by Brassey's. While the OB is solid, it is most difficult to determine the actual strengths of units down to the regiment level and some inspired guesswork was involved in this process. Soviet units vary from the half-strength Rifle Divisions of the 51st Army to the full-strength and powerful formations of the 2nd Guards Army.

While a good order of battle is often enough to make a bad game look good, OWS seeks to combine a solid OB with a challenging but playable game system. Possession of the initiative is key in OWS. The effect of initiative is difficult to reflect in a war game but was an important aspect of warfare in Russia. In OWS, possession is rewarded with movement and combat advantages in an attempt to show the effect of one commander forcing the other into a reactive mode. For the German player in OWS, possession of the initiative is essential if his smaller force is to outmaneuver his larger opponent. The effects of not maintaining the initiative may seem overly harsh. In part, they were designed to make the Soviet player go over on the offensive instead of simply responding to the attack of the relatively small German spearhead

and then attempting to smother it. In the actual battle, the Soviets continually launched a series of attacks despite suffering heavy losses.

The movement sequence is meant to show the primacy of armor and mechanized formations in the open steppes south of Stalingrad. Non-mechanized formations must attack and then move, restricting their utility in such a mobile battle. Mechanized formations move and fight separately, reflecting the inability of both sides to fully coordinate their forces. For the Germans, this shows the inability of the Rumanian forces to keep up with the advance and for the Soviets it models their inability to fully coordinate the operations of mechanized and infantry forces.

OWS is rich in tactical flavor. A key theme is the superior capabilities of quality units. This results in DRMs for combat and the ability to stand firm in combat when desired. This allows them to press home attacks in spite of losses. Quality units also recover from the crippling affects of disruption more readily. The use of supporting fires is also a key aspect of combat. Proper use of artillery and air assets is essential to create a breakthrough or to break up enemy assaults. Artillery, when massed, is devastating. For the Soviets, it can bring German attacks to a standstill and gives the plodding Soviet infantry formations units a chance to attack successfully. German artillery and air units can provide the extra firepower needed to force a breakthrough instead of merely inflicting more attrition to a defender. Rocket artillery is especially useful for both sides with its ability to move its full capability and still fire. The air rules demonstrate the proper historical uses of German and Soviet air assets. When available in significant numbers, the Luftwaffe can give the German player a decisive (if fleeting) advantage.

Another key aspect of OWS is the use of strength markers. The game system is attrition based by design. In OWS, large units will not be destroyed in a 12-hour turn, never to return. For the small inconvenience of using strength markers, actual losses can be shown and units will melt away over time, not be destroyed in a single disastrous attack. The replacement system demonstrates the resiliency of units, which are continuously being rebuilt after the suffering losses.

The fog of war rules were added in an attempt to add some uncertainty into the minds of the players. Though handled abstractly, it does not even approximate the actual confusion and lack of information available to commanders.

Though the possibility of a breakout by the Sixth Army was remote given Hitler's adamant refusal to sanction a withdrawal from the Volga, such an eventuality is included in OWS. Had the relief forces actually succeeded in getting to within approximately 11 miles of the pocket, an attack by at least some elements of the Sixth Army was possible. This is reflected in the game and puts the impetus on the German player to gain ground quickly to increase the likelihood of a breakout.

Of the four scenarios, the first (We are Coming) is the most freewheeling and is best suited as an introductory scenario. Hoth's Last Gasp covers the German's attempt to break loose and regain some momentum to cross the Myshkova River and move toward the pocket. The campaign scenario shows the full difficulty of the German task but offers the German player the possibility of coordinating his relief operations with a potential breakout from the pocket. Players looking to substantially change the nature of the historical battle need to explore the last of the four scenarios and add additional German units to the relief force. These additional forces provide the German player with the combat power necessary to quickly overwhelm the 51st Army before the arrival of the 2nd Guards Army forecloses the prospects of a breakthrough to the pocket.

No attempt will be made here to tell players how to exploit the strengths and weaknesses of both sides. Suffice it to say that the player who conducts careful planning and successfully integrates all combat arms will gain an advantage. Both sides possess powerful units for attacks and weaker units useful only for screening the main assault. If these assets are used wisely, both players have the means to achieve their objectives. The game system is rich enough to reflect the varying capabilities of the units involved and to allow the players to experiment to find the best ways to employ his forces.

Terrain Effects Chart (TEC)

<u>Terrain Type</u>	<u>Movement Costs</u>			<u>Combat Effects</u>
	<u>Tracked</u>	<u>Motorized</u>	<u>Non-motorized</u>	
Clear	1 MP	2 MP	1 MP	None
Elevated	1 MP	2 MP	1 MP	1 column
Marsh	2 MP	3 MP	2 MP	1 column
Major River	Prohibited			Prohibited
Minor River	+4 MP	+6 MP	+3 MP	2 columns
City	Other terrain in hex			2 columns
Village	Other terrain in hex			1 column
Primary Road	1/2 MP	1/2 MP	1 MP	None
Secondary Road	1 MP	1 MP	1 MP	None
Railroad	Other terrain in hex			None
Bridge	+1 MP	+1 MP	+1 MP	See rivers
Stalingrad Pocket	Soviet units cannot enter			None
Entrenchments	Other terrain in hex			1 column

Note: On icy turns, roads are treated as clear terrain

Air Combat Results Table

Die roll	Differential (Attacker value minus defender value)					
	-3/-4	-2	-1	0	+1	+2
10 or more	AD	AD	AD	AD	AD	AD
9	A	AD	AD	AD	AD	AD
8	A	A	AD	AD	AD	AD
7	-	A	A	AD	AD	AD
6	-	-	-	A	AD	AD
5	-	-	-	-	A	A
4	-	-	-	-	-	A
3	-	-	-	-	-	-
2	-	-	-	-	-	-
1 or less	-	-	-	-	-	-

Die Roll Modifiers (cumulative):

- +1 if attacking unit has a greater proficiency rating than the target unit
- +2 if attacking unit has a proficiency rating three greater than the target unit
- -1 if a non-fighter unit fires on a fighter unit

Results

- = No effect

A = Target unit aborts mission; place in flown section of Air Operations Chart

D = Disruption; place in disruption section of Air Operations Chart

German Air Operations Chart

Ready Units

Flown Units

Disrupted Units

Mission Display

INTERDICTION

GROUND ATTACK

AIR SUPERIORITY

ESCORT

ESCORT

AGAINST SOVIET
GROUND ATTACK
MISSIONS

Die rolls required to return a unit to ready status:

JG	1-7, if disrupted 1-5
ZG	1-5, if disrupted 1-3
STG/SG	1-5, if disrupted 1-3
KG	1-2, disrupted units may not recover

Soviet Air Operations Chart

Ready Units

Flown Units

Disrupted Units

Mission Display

GROUND ATTACK

AIR SUPERIORITY

Against German
Ground Attack

Against German
Interdiction

ESCORT

Die rolls required to return a unit to ready status:

IAD	1-7, if disrupted 1-5
SHAD	1-7, if disrupted 1-5
BAD	1-6, if disrupted 1-4
SAD	1-7, if disrupted 1-5

Counterbattery Table

Die Roll	Factors Firing							
	1	2	3	4	6	8	10	12+
10 or more	S	S	S1	S1	S1	S1	S1	S2
9	S	S	S	S1	S1	S1	S1	S1
8	-	S	S	S	S	S1	S1	S1
7	-	-	S	S	S	S	S1	S1
6	-	-	-	S	S	S	S	S1
5	-	-	-	-	S	S	S	S
4	-	-	-	-	-	S	S	S
3	-	-	-	-	-	-	S	S
2	-	-	-	-	-	-	-	-
1	-	-	-	-	-	-	-	-

Modifiers (cumulative):

- +1 die roll modification if friendly unit is adjacent to target hex
- 1 column to the left if target unit is entrenched

Results

- = No effect

S = Target unit suppressed; place a fired marker on the unit

1/2 = Step loss; reduce target unit by number of strength points indicated

Bombardment Table

Die roll	Factors Firing								
	1	3	5	7	9	11	13	15	18+
10 or more	1	2	2	3	3	3D	3D	3D	4D
9	1	1	2	2	3	3	3D	3D	3D
8	-	1	1	2	2	3	3	3D	3D
7	-	-	1	1	2	2	3	3	3D
6	-	-	-	1	1	2	2	3	3
5	-	-	-	-	1	1	2	2	3
4	-	-	-	-	-	1	1	2	2
3	-	-	-	-	-	-	1	1	2
2	-	-	-	-	-	-	-	1	1
1	-	-	-	-	-	-	-	-	1

Modifiers (cumulative):

- -1 die roll modification if no friendly unit of is adjacent to target hex (artillery bombardment only)
- 1 column to the left if target unit is entrenched
- 1 column to the left if target unit is armored

Results

- = No effect

1/2/3/4/5 = number of strength points lost if bombardment; result reduced by 1 if target unit entrenched

D = Target disrupted (bombardment only)

Combat Results Table

Die roll	Total Factors Firing										
	1	2	3	5	8	10	12	15	20	25	30+
10 or more	-/1	-/1	-/2	1/3	1/3	1/3	2/3	2/3	2/4	2/4	2/4
9	-/1	-/1	-/1	-/2	1/3	1/3	1/3	2/3	2/3	2/4	2/4
8	-/-	-/1	-/1	-/1	-/2	1/3	1/3	1/3	2/3	2/3	2/4
7	-/-	-/-	-/1	-/1	-/1	-/2	1/3	1/3	1/3	2/3	2/3
6	-/-	-/-	-/-	-/1	-/1	-/1	-/2	1/3	1/3	1/3	2/3
5	-/-	-/-	-/-	-/-	-/1	-/1	-/1	-/2	1/3	1/3	1/3
4	-/-	-/-	-/-	-/-	-/-	-/1	-/1	-/1	-/2	1/3	1/3
3	-/-	-/-	-/-	-/-	-/-	-/-	-/1	-/1	-/1	-/2	1/3
2	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/1	-/1	-/1	-/2
1 or less	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/1	-/1	-/2

Results

- = No effect

left of slash = Mandatory result (number of strength points lost)

right of slash = Optional result

Combat Modifications

Column shifts (cumulative):

Attacker:

Terrain (see Terrain Effects Chart)
Entrenchments 1 column left

Die Roll Modifiers (cumulative):

Attacker:

Initiative

+1 if the initiative has been held for three consecutive turns
+2 if the initiative has been held for five consecutive turns

Armor Superiority

+2 if conditions of 11.4 are met

Combined Arms (German only)

+1 if conditions in section 11.4 met

Multi-hex attack

+1 if coordinated attack from 4 hexes
+2 if coordinated attack from 5 hexes
+3 if coordinated attack from 6 hexes

Unit proficiency

+1 if lead unit proficiency rating is 1 or 2 greater than defender
+2 if lead unit proficiency rating is 3 or 4 greater than defender
+3 if lead unit proficiency rating is 5 or more greater than defender

Supply

-1 if in organic supply status
-2 if in out of supply status

Special considerations

+1 if lead unit is engineer attacking defender in entrenchments

Defender:

Initiative

+1 if the initiative has been held for three consecutive turns
+2 if the initiative has been held for five consecutive turns

Armor Superiority

+2 if conditions of 11.4 are met

Unit proficiency

+1 if lead unit proficiency rating is 1 or 2 greater than attacker
+2 if lead unit proficiency rating is 3 or 4 greater than attacker
+3 if lead unit proficiency rating is 5 or more greater than attacker

Supply

-1 if in organic supply status
-2 if in out of supply status

Detailed Sequence of Play

I. Air Operations Phase

- a. Air Allocation Segment
 1. Soviet player secretly places any of his ready air units in the boxes on his Air Operations Chart
 2. German player does the same with his ready units.
 3. Both Air Operations Charts are revealed; the German player can now place his fighter units in any of his mission boxes.
- b. Air Combat Segment (perform for each mission box with a fighter unit assigned to air superiority)
 1. If the fighter unit is in an Air Superiority box that corresponds to a mission by enemy aircraft, the fighter unit performs a proficiency check; units failing the check are placed in the flown units box, those passing go to step 2.
 2. If escorts are present, determine which set of fighters have gained the bounce.
 3. Player with the bounce may designate engagements and resolve combat.
 4. Non-advantage player may return fire with surviving aircraft.
 5. If intercepting aircraft survive, they may engage the mission force. Fire is simultaneous.
- c. Perform bombardment
 1. Select a target unit. If more than one hidden units are present in a single hex, the target unit is chosen at random.
 2. Total the number of ground attack factors present; apply modifications per the Bombardment Table. The presence of anti-aircraft units in the target hex modifies the attack.
 3. Results from the Bombardment Table are applied immediately.
 4. The German Player may withhold Ju-87 (Stuka) units for later use in his movement and/or combat phase(s).
- d. Perform interdiction (German player only).
 1. Total the number of ground attack factors present; the presence of anti-aircraft units in the potential interdiction zone modifies the attack.
 2. Roll on the Bombardment Table; any number result creates an interdiction zone in which Soviet units lose movement points equal to the result gained.

II. Stalingrad Pocket Phase

- a. Operation Thunderclap Initiation Segment
 1. If conditions permit, the German player may roll to determine if Operation Thunderclap commences
 2. If Operation Thunderclap has been initiated, Sixth Army units are activated
- b. Soviet Ring Forces Segment
 1. Roll for the release of a unit from any Soviet Ring Army that has been attacked
 2. Soviet Ring Forces units that have been retreated as a result of combat or that have been released can move.

III. Initiative Phase

- a. Each player decides how many attacks will be conducted in the turn
- b. Determine which player has gained the initiative; roll a single die, add the declared number of attacks. The player with the highest total has gained the initiative and becomes the First Player. His opponent becomes the Second Player.
- c. Determine if the player holding the initiative has gained additional advantages by holding the initiative for two, three or five consecutive turns.

IV. First Player Phase

- a. Supply Determination Segment
 - b. Non-mechanized Formation Combat Segment
 1. The active player indicates which hex he will attack and designates his lead unit and any artillery units that will conduct bombardment in support of the attack. The German player may also designate Stuka units if available.
 2. The inactive player also designates his lead unit and any artillery units that will be used in support.
 3. Counterbattery fire is performed by eligible units of both sides.
 4. The inactive player conducts defensive bombardment with designated units that survived counterbattery fire.
 5. The active player conducts bombardment with designated air and artillery units. If present, air units attack separately from artillery units.
 6. The inactive player conducts fire combat against enemy units with losses being applied immediately. Before the die is rolled, determine any column shifts or die roll modifications that will modify combat. Mandatory strength point losses are extracted; optional results are satisfied by a retreat or with a proficiency check. (Exception: if the defending units are disrupted, the active player executes step 6 first. Surviving defending units then execute step 6).
 7. The active player now fires against adjacent enemy units as described in step 6. Results are applied immediately. If all defending units are destroyed or retreated, advance after combat can be conducted. Defending units may never advance after combat.
 - c. Non-mechanized Formation Movement Segment
 1. Each stack or unit is moved individually. Hasty attacks are permitted during movement. Each unit or stack completes its movement before the next can begin.
 - d. Mechanized Formation Movement Segment (as described in c. above)
 - e. Mechanized Formation Combat Segment (as described in b. above)
- (NOTE: players may perform segments d. and e. and any order. See 7.0 for details and restrictions.)

V. Second Player Phase (identical to First Player Phase)

VI. Recovery and Replacement Phase

- a. Disruption Removal Segment
 1. Each disrupted unit performs a proficiency check; if successful, the disrupted marker is removed

- b. Replacement Segment
 - 1. Add scheduled replacements to each nationality's total.
 - 2. Determine attrition replacements by taking the total losses to each unit type and multiplying by the appropriate recovery rate.
 - 3. Assign and absorb accumulated replacements. Excess replacements may not be saved.
 - 4. Replace any lost headquarters units.
- c. Fired Marker Removal Segment
 - 1. Remove fired from all indirect fire weapons units
- d. Air Unit Recovery Segment
 - 1. Roll for recovery of all flown and disrupted units.
 - 2. Place recovered units in the Ready Units Box

Turn Record Track

Turn 1 AM, 12 December 1942

Weather: Clear; roads - passable

Reinforcements: German - 54th Nebelwerfer Regiment (3 units) Entry Area A

Special events: None

Turn 2 PM, 12 December 1942

Weather: Clear; Roads - passable

Reinforcements: German - 12 stacking points from 23rd Panzer Division force pool enter Entry Area A

Special events: None

Turn 3 AM, 13 December 1942

Weather: Overcast; roads - passable

Reinforcements: German - 13 stacking points from 23rd Panzer Division force pool enter Entry Area A

Replacements: Soviet - 2 infantry points

Special events: Soviet 4th Mechanized Corps, 13th Tank Corps, 235th Tank Brigade, and 234 Tank Regiment released from reserve

Turn 4 PM, 13 December 1942

Weather: Overcast; Roads - icy

Special events: None

Turn 5 AM, 14 December 1942

Weather: Overcast; roads - icy

Replacements: German - 1 infantry point, Soviet - 2 infantry points

Special events: Soviet 87th and 300th Rifle Divisions released from reserve.

Turn 6 PM, 14 December 1942

Weather: Overcast; roads - icy

Special events: None

Turn 7 AM, 15 December 1942

Weather: Clear; roads – icy

Reinforcements: German - 228 Assault Gun Battalion

Replacements: Soviet - 2 infantry points

Turn 8 PM, 15 December 1942

Weather: Clear; roads - icy

Special events: None

Turn 9 AM, 16 December 1942

Weather: Clear; roads - passable

Reinforcements: German - 18 stacking points from 17th Panzer Division force pool enter hex 1043

Soviet - 2nd Guards Army HQ unit, 2nd Guards Mechanized Corps, 1st Guards Rifle Corps HQ unit, 33rd Guards Rifle Division, 98th Rifle Division enter Entry Area B

Turn 10 PM, 16 December 1942

Weather: Clear; roads - icy

Reinforcements: German - 18 stacking points from 17th Panzer Division force pool enter hex 1043

Soviet - 24th Guards Rifle Division, Entry Area B

Special events: None

Turn 11 AM, 17 December 1942

Weather: Clear; roads - passable

Reinforcements: German - 16 stacking points from 17th Panzer Division force pool enter hex 1043

Soviet - 13th Guards Rifle Corps HQ unit, 3rd and 49th Guards Rifle Divisions enter Entry Area B

Replacements: Soviet 1 infantry point

Special events: Soviet 4th Guards and 315th Rifle Divisions released from reserve

Turn 12 PM, 17 December 1942

Weather: Clear; roads - icy

Reinforcements: Soviet - 387th Rifle Division, all five 2nd Guards Army independent units enter Entry Area B

Special events: None

Turn 13 AM, 18 December 1942

Weather: Overcast; roads - icy

Replacements: Soviet 1 infantry point

Special events: Soviet 7th Tank Corps and 38th Rifle Division released from reserve

Turn 14 PM, 18 December 1942

Weather: Overcast; roads - icy

Special events: None

Turn 15 AM, 19 December 1942

Weather: Clear, roads - passable

Replacements: German - 1 infantry point, Soviet - 1 infantry point

Turn 16 PM, 19 December 1942

Weather: Clear; roads - icy

Special events: None

Turn 17 AM, 20 December 1942

Weather: Overcast; roads - passable

Replacements: Soviet - 1 infantry point

Turn 18 PM, 20 December 1942

Weather: Overcast; roads - passable

Special events: None

Turn 19 AM, 21 December 1942

Weather: Overcast; roads - passable

Replacements: Soviet - 1 infantry point

Turn 20 PM, 21 December 1942

Weather: Overcast; roads - icy

Special events: None

Turn 21 AM, 22 December 1942

Weather: Clear, roads - passable

Replacements: Soviet - 1 infantry point

Turn 22 PM, 22 December 1942

Weather: Clear; roads - passable

Special events: None

Turn 23 AM, 23 December 1942

Weather: Clear; roads - passable

Replacements: Soviet - 1 infantry point