

WHITE DEATH

Velikiye Luki, The Stalingrad of the North

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In the south of Russia the German army had torn open the Soviet front with their summer offensive and driven into the Don River bend and south into the Caucasus. By mid-November the German Sixth Army had cleared all but a few blocks of Stalingrad and Army Group A seemed on the verge of reaching the oilfields to the south. Soviet Russia seemed finally beaten.

The Red Army was not beaten, however, and by ruthlessly feeding only the bare minimum of reserves into the battle had managed both to blunt the German drive and accumulate a sizeable strategic reserve. Waiting until the Wehrmacht had spent its strength and extended itself to its limit, Stavka carefully planned the boldest Soviet offensives of the war to date. In mid-November, with the freeze negating much of the defensive advantages of rivers and making the northern swamps passable for armored vehicles, the time had come.

In the south Vatutin's Southwest Front, Rokossovski's Don Front, and Yeremenko's Stalingrad Front would launch a massive encircling offensive against the Axis troops in the Don River bend and Stalingrad. In the north an offensive of nearly equal proportions would be launched against the German Rzhev Salient by Sokolovski's Kalinin Front and Konev's West Front. This twin blow north and south was planned to cripple the Wehrmacht and serve as the prelude to its final expulsion from Soviet soil.

Preceding both offensives by several days, however, was a third offensive launched by the right flank of Sokolovski's

Kalinin Front against the city of Velikiye Luki and aimed at cutting the vital Vitebsk-Leningrad railroad. Lieutenant General Perkayev's Third Shock Army, reinforced with three separate corps, was assigned the mission. Defending the sector were two understrength German divisions plus a number of rear-area security and support troops. Insufficient troops were available to cover the entire front and two ten-mile gaps were patrolled only by small detachments of ski troops. Furthermore, it was anticipated that most local German reserves would be drawn into the intense fighting in the Rzhev Salient, 100 miles to the east. But the Germans had an important advantage. Velikiye Luki had been intensively fortified in preceding months, and all roads in the near-trackless wilderness ran through Velikiye Luki. The stage was set for one of the most bitterly fought battles of the war in the East.

RULE 1: Game Components

White Death consists of one map, one set of game charts, two sheets of counters, and this rule booklet.

A. Map: The map covers the area around the city of Velikiye Luki on a scale of one mile per hex (measured from hexside to hexside). The map information is taken from 1:100,000 scale maps captured from the Red Army by the Wehrmacht and captured from the Wehrmacht by the Allies. All place names appear as they do on the original map, in both Russian and in the German spellings.

The area around Velikiye Luki is extremely desolate, and over a year of war had turned it into a near-lunar landscape. The area is dotted with

swamps which freeze in winter. There are few towns and fewer roads, and by November most of the minor roads had completely disappeared under a blanket of snow. Many of the pre-war villages had disappeared without a trace, and the monotony of barren, flat plains completely covered by snow made even simple navigation an occasional headache.

B. Charts: The set of charts included in the game provide information needed for play as well as providing handy reference for commonly used information. The set-up charts are a graphic display of the major units involved in the battle, their components, and their major attachments. Every unit historically involved in the battle is shown on the set-up charts. Note, however, that a number of units are included in the game which do not appear on the set-up charts. These are optional reinforcements and are covered in detail by the rules.

C. Counters: The two sheets of counters include the units and markers used in the game and are explained in Rule 2: Units.

D. Rules: This rules booklet contains the rules which govern play of the game. The rules dictate (within the scope of the game) actions which were possible, and prohibit actions which were not. Within those limits, all outcomes of the battle covered are possible results of the game.

RULE 2: Units

The two sheets of counters included represent all of the historical units which fought in the actual battle of Velikiye Luki and some which might have been

committed under different circumstances. Additional counters are informational markers used in play. The information on the counters may be read with the assistance of the Unit Identification Chart printed on the back cover of this rules booklet. Basically, the front of each counter indicates the type, size, and specific identification of the unit, as well as its initial strength and method of mobility. The reverse of the counter contains all information pertinent to combat. Strength reduction is accomplished by placing reduced strength markers under the counter.

Armored fighting vehicle (AFV) units bear a silhouette instead of a unit type symbol and do not have a unit size indication. All Soviet AFV units are battalions; all German AFV units are companies. Each strength point represents from 150-200 combat infantry, 4 heavy guns, 6-8 light guns, or 4-5 AFVs.

Division/Brigade Identifications: Many units in the game bear a division or brigade identification to the left of the unit box (or in the upper left corner of the counter in the case of AFV units). These units will be universally referred to throughout the rules as divisional units, regardless of whether they are part of a division or a brigade. Units which appear on the setup chart with the units of a division, but do not bear a division/brigade identification, are only attached to the division and are not considered divisional units. Certain Soviet corps and army troops bear the identification of their corps or army to the left of the unit box. (This includes all units with the identifications 3SA, 2MC, 5S, and 8E.) These units are not considered to be divisional troops.

RULE 3: Zones of Control

All units in the game, except for unstacked German weapons companies, have a *zone of control* (abbreviated ZOC) consisting of the six hexes immediately surrounding them. A unit must stop immediately upon entering a hex in an enemy ZOC (except as noted below) and may not move further that movement phase. The presence of friendly units or their ZOCs in a hex does not negate the effects of enemy ZOCs. A unit which begins a movement phase in an enemy ZOC may move away but expends one movement point (see Rule 6: Movement) in addition to normal terrain costs to do so. Such a unit may move from one ZOC directly to another, thus ending its

movement. Zones of control affect supply and retreats as specified in later rules.

A. AFV Units: AFV units are not required to stop upon entering an enemy ZOC, nor are they required to expend one movement point to leave an enemy ZOC. Each time that an AFV unit leaves an enemy ZOC, however, all enemy units whose ZOC is exited may conduct antitank fire at the moving AFV unit (see Rule 10: Antitank Combat). This is done during the movement phase, is resolved immediately, and does not prejudice the ability of the firing units to fire in the assault phase or the ability of the moving AFV unit to be fired at later in the defensive fire phase. An AFV unit may be fired at as many times as it leaves an enemy ZOC during movement, and a unit may fire at each enemy AFV unit which leaves its ZOC. Moving AFV units which suffer losses during movement from antitank fire must check morale (while still in the hex to be exited) as specified in Rule 14: Morale, and any AFV unit which fails this morale check immediately ends its movement for that phase. If the unit routs, it suffers the normal effects of routing as if suffered during the defensive fire phase.

An AFV unit which begins its movement phase adjacent to an enemy unit may avoid its antitank fire by paying one movement point to exit its ZOC, as any other unit. The AFV may not avoid fire from units whose ZOC it exits later in the movement phase using this method.

B. Ski Units: Ski units are not required to stop upon entering any enemy ZOC except that of another ski unit. When entering the ZOC of a non-ski unit a ski unit may continue moving by paying one additional movement point for each enemy ZOC exited. For the purpose of this rule, only units which are ski-mobile are considered to be ski units. (German antitank companies printed in ski unit colors are not true ski units.)

C. Weapons Units: Weapons units may never enter an enemy ZOC during the movement phase. Weapons units which are in an enemy ZOC at the beginning of a movement phase are not required to leave. Weapons units may retreat through enemy ZOCs with the same results as other units (see Rule 14: Morale).

D. Towns: Zones of control do not extend into a town hex. Units in a town hex exert a zone of control into every adjacent non-town hex.

E. Prohibited Terrain: No unit exerts a

ZOC into a hex or across a hexside which it cannot enter or cross. For example, an AFV unit does not exert a ZOC into a forest hex unless the hex contains a road which enters the AFV unit's hex.

RULE 4: Stacking

More than one unit may occupy a hex in a process known as *stacking*. The maximum number of units that may be placed in a hex is determined by the criteria listed below, and varies for the two players. Stacking limits are in effect at the end of the movement and combat phases. Thus a unit may move through a hex containing the maximum number of friendly units, but could not end its movement in such a hex. Units forced to retreat as a result of combat in violation of stacking must retreat additional hexes until no longer in violation of stacking. If unable to do so they are instead eliminated.

A. German Stacking: The German player may either stack any three battalion equivalents in a hex or may stack four battalion equivalents all from the same division or brigade. In either case, the German player may have one additional company in the stack. In the case of four battalions from the same division or brigade, the additional company need not be from the same division or brigade.

A battalion equivalent is defined as any one battalion counter, any two companies, or all of the companies of a single battalion. (Several German battalions consist of four companies.)

B. Soviet Stacking: The Soviet player may either stack all of the units of a single brigade in a hex, or he may stack any two non-divisional artillery units in a hex, or he may stack one regiment and one battalion both from the same division in a hex, or he may stack any two battalions in a hex. In any of the above cases he may freely add to the stack any one engineer brigade.

C. Limited Intelligence: A player may not examine the contents of an enemy stack except when attacking into that hex in some manner. Normally, a player may only see the front of the counter of the top unit in a stack. He may not examine the front or back of any other counter in the stack, nor may he see the back or the current strength marker of the top unit.

RULE 5: Sequence of Play

White Death is played in a series of *game turns*, each representing five days of real time. Each game turn will consist of a

variable number of *impulses*, with the exact number in each turn determined by the decisions and actions of the players. Briefly, each player has ten movement points which he may expend each turn. The Soviet player always moves first, and thus takes the first impulse of the turn. The Soviet player decides how many movement points he will expend in his impulse (as few as one or as many as ten). After he finishes his impulse, the German player conducts an impulse with as many or as few movement points as he desires. This alternation of movement points continues until one side exhausts its supply of ten movement points for the turn. The other player then conducts one or more impulses consecutively until he also has exhausted his supply of ten movement points. This concludes one turn.

During a Soviet impulse the Soviet player is referred to as the phasing player and the German player is referred to as the non-phasing player. During German impulses these roles are reversed. All action within an impulse is conducted in the following sequence of play:

1. **Decision Phase:** The phasing player decides how many of his remaining movement points will be spent in the current impulse and moves the "current" marker to reflect the expenditure of movement points. (The German current marker is labeled GC; the Russian current marker is labeled RC.)

2. **Movement Phase:** The phasing player moves all units desired and declares all attacks. Each unit may move up to the limits imposed by the Decision Phase.

3. **Barrage Phase:** The phasing player conducts all barrage attacks.

4. **Defensive Fire Phase:** The non-phasing player conducts all antitank and conventional defensive fires.

5. **Assault Phase:** The phasing player conducts all antitank and conventional fires by attacking units.

6. **Terminal Phase:** The phasing player moves the "initial" movement marker to the same box on the movement point track as that occupied by his "current" marker, to show how many movement points will be available at the beginning of the next impulse. The supply marker is moved on the supply track to show expenditure of supply, if any. All attack markers are removed from attacking units.

After both sides have conducted all impulses for a turn the turn record

marker is advanced one space on the turn record chart and a new turn is begun again with the Soviet impulse.

Types of Impulses: There are two types of impulses: an *action impulse* and a *pass*. In an action impulse the phasing player expends one or more movement points and conducts movement and combat. In a pass impulse the phasing player expends only one movement point and may conduct no actions at all except for barrage attacks and rail movement. The Soviet player when conducting an action impulse must expend at least three more movement points or all remaining movement points, if he has less than three.

RULE 6: Movement

A. General Explanation: Units move during the movement phase of an impulse. Only the units of the phasing player move during a movement phase. Units move by tracing a path through adjacent hexes, expending movement points (MPs) or fractions thereof for each hex entered. Some hexsides require additional MP expenditure to cross and some hexes require additional MP expenditure to leave as well as enter. Units may never enter an enemy occupied hex.

Different units have different mobility categories as indicated by the letter code on the front of the counter. Although all units of the same side have the same number of movement points available to them each impulse (the number declared in the Decision Phase), the rate at which they expend them for entering different terrain types is governed by their mobility category. The effects of terrain on movement are explained in Rule 7.

B. Movement-Related Activity: There are three actions aside from movement *per se* which require the expenditure of MP.

1. **Leaving ZOCs:** Units must pay one MP to leave an enemy ZOC except as noted in Rule 3: Zones of Control.

2. **Deploying:** In order for a unit to engage in indirect fire it must first *deploy*. Deployment costs one MP and is designated by turning the unit over. Once a unit is deployed it remains deployed until it moves from that hex. Upon moving again the unit automatically *concentrates* (i.e. is no longer deployed) and is turned face up. No MP expenditure is required to concentrate. Deployment is only necessary for a unit to engage in indirect fire; concentrated units may conduct any other type of combat normally.

3. **Assault:** In order for a unit to assault an adjacent enemy unit with either antitank or conventional fire it must expend one MP. This expenditure is recorded by placing an assault marker on the attacking unit. A unit is not required to expend one movement point to conduct indirect or defensive fire.

RULE 7: Terrain and Movement

Different types of terrain require the expenditure of different MP costs to enter, as explained in Rule 6: Movement. The precise cost to enter a hex of a specific terrain type by units of each mobility category is detailed on the Terrain Effects Chart, as is the cost to cross lake hexsides. For certain mobility categories the MP costs for a creek and a river consist of two numbers separated by a dash. The first number is the cost to enter a hex of that type; the second number is the additional penalty paid to leave that *type* of terrain. For example, a draft-mobile unit would pay 1 MP to enter a creek hex and would then pay 1 MP per hex to move up or down the creek. When it moved out of the creek, however, it would pay a penalty of 2 MP plus the cost of the first non-creek hex entered.

Roads: The presence of a road in a hex negates the movement effect of all other terrain in the hex except for river. Only bridges negate the effect of river terrain. (See Rule 20: Bridges.) In order to use the road movement rate a unit must be moving along the road. For example, if a unit moved into a forest/road hex from a non-road hex the unit would treat the hex as a forest hex, not a road hex.

Prohibited terrain: Some terrain is prohibited to certain mobility categories. This terrain is marked on the Terrain Effects Chart with the notation "P".

RULE 8: Rail Movement

Railroads are treated exactly as roads for all normal movement purposes. In addition, each player may conduct rail movement. In order to conduct rail movement a unit must be entrained. Personnel units may entrain on any rail hex; weapons and AFV units may entrain in any town hex on a railroad. Entraining costs one movement point. Once entrained a unit may move an unlimited number of hexes along the railroad provided the railroad can be traced back, uninterrupted by enemy units or their zones of control, to a friendly board edge. For the purposes of rail transport the eastern

board edge is friendly for Soviet units and all other board edges are friendly for German units. Units using rail movement may not enter a hex in an enemy ZOC. At the conclusion of rail movement the unit must be in a hex in which it could entrain. Each side may rail up to 25 strength points of units a turn (not impulse).

RULE 9: Conventional Combat

Conventional combat represents fire against personnel and weapons units with small arms, mortars, etc. Conventional fire combat takes place during the Defensive Fire Phase and the Assault Phase.

A. Which Units May Conduct Conventional Fire: All units of the non-phasing player which are being assaulted may conduct defensive fire during the Defensive Fire Phase. All assaulting units fire during the Assault Phase. Units with a parenthetical conventional combat factor may only fire defensively.

B. Which Units May Be Fired At: All units of the phasing player which are assaulting may be fired at by all enemy units in the hex they are assaulting. All units of the non-phasing player in a hex under assault may be fired at by the assaulting units. However, AFV units may never be fired at by conventional fire.

C. How Units Fire: Conventional combat is conducted in five steps.

1. Determine Combat Value: The combat value of a unit is determined by multiplying its combat factor by its remaining strength. The total fire value attacking a single unit is the sum of all units firing at it.

2. Determine Defense Value: The defense value of a unit against conventional fire is determined by the type of unit and terrain the unit occupies. For defensive purposes there are three types of units: personnel units, light weapons units, and heavy weapons units. The letters P, L, and H on the back of the unit counters serve to differentiate these three types. The specific defense values of units are listed on the Terrain Effects Chart. For example, a personnel unit in clear terrain has a defense value of 6.

3. Determine Odds: Conventional combat fire is directed against individual target units in a hex. All units firing into a hex sum their combined combat value and this total may be apportioned among the defending units in any manner desired within the following limitations. No target unit may be fired at more than once per phase. No weapons unit (light or

heavy) may be fired at with higher odds than any personnel unit in the hex is fired at with, nor may a weapons unit be fired at at all unless each personnel unit is attacked.

By comparing the conventional fire value firing at a unit to its defense value, a simple odds ratio is created. This odds ratio must be converted to one of those listed on the Conventional Combat Results Table, with fractions always rounded in favor of the defender. Thus 29 conventional fire factors firing against a unit with a defense value of 10 would become 2:1.

4. Resolve the Combat: Roll the die and implement the results. The result will either be MC or MC followed by a number. The result MC always indicates that the target unit must make a morale check. The number following an MC result is both the number of strength points lost by the unit and the adverse die roll modification to the required morale check. A unit is never required to lose more than half of its remaining strength due to a conventional fire attack unless its remaining strength is one. Thus a unit with a remaining strength of 3 which suffers a result of MC 3 would lose only one strength point but would check morale with an adverse die roll modification of 3. Losses are noted by placing a counter under the unit with the number of strength points remaining in the unit.

5. Make Required Morale Checks: Any unit required to take a morale check now does so as specified in Rule 14: Morale.

D. Advance After Fire: If a hex is cleared of all defending units by an assault, then the assaulting units may advance into the vacated hex. Advance after combat may also occur due to antitank fire (Rule 10) and morale (Rule 14). Only assaulting units may advance after fire; defending units may not.

RULE 10: Antitank Fire

Antitank fire represents the fire of armor-piercing weapons against armored vehicles. Antitank fire takes place during the Defensive Fire Phase and the Assault Phase.

A. Which Units May Fire: All units of the non-phasing player which are in a hex being assaulted and have a non-zero antitank factor may fire during the Defensive Fire Phase. All assaulting AFV units may fire during the Assault Phase. Note that non-AFV units may only fire antitank when defending.

B. Which Units May Be Fired At: Only AFV units may be fired at by antitank fire. All AFV units of the phasing player which are assaulting may be fired at by the units in the hex being assaulted. All AFV units of the non-phasing player under assault may be fired at by the assaulting AFV units.

C. How Units Fire: Antitank fire is conducted in four steps.

1. Determine Antitank Value: The antitank value of a unit is determined by multiplying its antitank factor by its remaining strength. The total fire value attacking a single unit is the sum of all units firing at it. Fractional antitank values are retained as fractions (not rounded up or down).

2. Determine Odds: The defense value of an AFV unit is printed on the back of the counter. (Note that AFV units either in or assaulting into a town or road/forest hex have their defense value reduced by one.) Antitank fire is directed at specific AFV units in a hex. All firing antitank values are summed and these may be divided up among target units however the firing player wishes. A single AFV unit may be fired on more than once if desired. For example, if sufficient antitank value was available to achieve a 2:1 odds attack on a certain AFV unit, it could either be run as a 2:1 or as two 1:1 attacks. Odds are determined by comparing the firing antitank value to the target AFV's defense value and converting this to an odds ratio in the same manner as specified in Rule 9.

3. Resolve the Combat: Roll the die and implement the results shown. An X result indicates one strength point of AFV's eliminated. A 2X result indicates two strength points destroyed. The only other possible result is a miss. Losses are shown in the same fashion as for non-AFV units.

4. Make Required Morale Checks: Any loss result requires the target AFV unit to check morale. Morale is checked as specified in Rule 14: Morale, with the total number of strength points lost used as an adverse die roll modification.

D. Limitations on Fire: Personnel units and AFV units may fire both antitank and conventional fire in a single phase. Weapons units, however, may fire only one or the other.

E. Advance After Fire: If all defending units are cleared from a hex due to antitank fire, then the firing units may advance into that hex. Only units of the phasing player may advance after fire.

RULE 11: Artillery

Certain units are capable of indirect fire. These units are distinguished by the presence of a range and barrage factor, and in some cases a support factor, on the back of the counter. All such units will be considered as artillery for the purposes of this rule, whether or not they bear the field artillery symbol. There are two types of fire: support and barrage.

A. Support: Deployed artillery (see Rule 6: Movement) may fire support missions. A support mission adds the support value of one or more artillery units to the conventional fire value of of a friendly stack. Support fire may be conducted in the Defensive Fire Phase (by the non-phasing player) and in the Assault Phase (by the phasing player).

1. Limitations: Artillery units firing support may not fire conventional fire or antitank fire during that phase. Soviet artillery units may only add their support values to stacks containing units of the same brigade or division. (Note that non-divisional Soviet units may not fire support and thus do not have support factors.) The German player may add the support value of up to one full stack of non-divisional artillery or artillery from another division to the combat value of a stack, in addition to the support values of as many artillery units of the same division as desired.

Whenever units of two or more divisions and/or brigades are either stacked together in a hex on the defense or are involved in an assault on a single enemy hex (whether stacked together or assaulting from different hexes) the owning player must designate one of the involved divisions or brigades as the *controlling headquarters*. All units in the attack or defense are then considered to be part of that one division or brigade for artillery support purposes. If, for example, units of brigade A and division B were assaulting and enemy hex and the owning player designated division B as the controlling headquarters, then all artillery units of brigade A would be considered to be from another division and subject to the restrictions listed above.

2. Procedure: Determine the support value of supporting artillery units by multiplying their support factor times their remaining strength. An artillery unit may add its support value to any friendly unit within its printed range. If the friendly unit is at a distance greater than half its range, its support value is halved.

The support value added to a stack is used as part of normal conventional fire.

B. Barrage: Deployed artillery may fire barrages. Only the phasing player may fire barrages. Barrages are conducted during the Barrage Phase and constitute a separate attack or attacks on the units in a hex. Only one hex may be attacked by a barraging unit.

1. Limitations: Artillery units firing barrage may not fire support, antitank, or conventional fire during that impulse.

2. Procedure: Barrage fire is conducted in three steps.

a. Determine Barrage Value: Multiply the barrage factor of a unit by its remaining strength to obtain its barrage value. If firing at a target hex at greater than half range, halve the result. Units may not fire at a target at greater than their printed range. The sum of all firing units' barrage values is the total barrage value attacking a hex. More than one barrage attack may be run on a single hex. For example a player attacks a hex with a total barrage value of 80 and resolves it as one attack on the 60+ column of the Barrage Table and one attack at the 20-29 column.

b. Resolve the Attacks: Each barrage attack is run against each unit in the target hex. Certain types of terrain and certain unit types modify the die roll; since this can vary with different units in the same hex, the die is rolled once for each unit in the target hex with all appropriate die roll modifications made. All die roll modifications are cumulative with two exceptions. First, AFVs never receive the bunker die roll modification. Second, bunkers themselves receive only the bunker die roll modification and not that for any other terrain in the hex.

The columns on the Barrage Table correspond to the total barrage value of the attack. Results read out in terms of number of strength points lost. In the event of losses the target unit takes a morale check with the actual strength point loss sustained as an adverse die roll modification. If several attacks are run on a unit, only one morale check is made with the total loss result serving as the modifier. As in conventional fire barrage results may not force a unit to lose more than half its remaining strength points in the phase unless the unit has a remaining strength of one. This does not apply to bunkers, which lose as many strength points as called for regardless of the remaining strength of the bunker. (See Rule 19: Bunkers.)

c. Make Required Morale Checks:

Morale is checked as indicated above and specified in Rule 14: Morale.

3. Observation: To conduct a barrage at full effectiveness the target hex must be observed. If the target hex of a barrage is not observed by or for all firing units then 1 is added to the die roll for every two hexes (or part thereof) of range from the farthest barraging artillery unit.

a. Which Units May Observe:

Any German unit may observe for any other German unit and for itself. Any Soviet artillery unit may observe for itself. Any Soviet unit may observe for any Soviet non-divisional artillery unit and for any artillery unit of its own division or brigade.

b. How Units Observe: A unit observes a target by tracing a line of sight which does not pass through any blocking terrain from its own hex to that of the unit to be observed. The line of sight may not normally be longer than two hexes. Units adjacent to and on the high side of a slope hexside and tracing line of sight across it may observe to a range of three hexes. Units on high ground and observing hexes not on high ground may also observe to a range of three hexes. The Soviet Guards rocket regiment, when deployed, may be seen from one hex farther away than other units. (Thus, a unit on high ground could see it from four hexes.)

c. Blocking Terrain: A line of sight may extend from a unit in a town or forest hex and to a unit in a town or forest hex, but it may never pass through a town or forest hex. A line of sight up a slope hexside never extends farther than into the hex immediately across the hexside. A line of sight may never be traced down across a slope hexside except from a unit adjacent to the hexside.

d. German Observation Battalion:

Stationed initially in Velikiye Luki is the German 17th Observation Battalion which included a sound ranging company and a flash ranging company. This unit may observe any deployed Soviet artillery unit within seven hexes of it.

e. Snow: During snow turns all units (including the observation battalion) may only observe adjacent units.

RULE 12: Terrain and Combat

The primary effect of terrain on combat is to determine the defense value of non-AFV units for purposes of conventional fire. The defense value of terrain types is listed on the Terrain Effects

Chart. These values are not cumulative; if several types of terrain are in the same hex (for example, river and town) the most advantageous terrain for the defending unit is used. Certain types of terrain have additional effects as detailed below.

A. Prohibited Terrain: A unit may not assault across a prohibited hexside or into a prohibited hex. For example, an AFV unit (track-mobile) could only assault into a forest hex along a road. Prohibited terrain does not prevent artillery from firing barrage attacks or support fires into a hex, nor any unit from firing defensive fires into a hex.

B. Slopes: A unit firing down a slope hexside has its conventional combat factor and its antitank factor doubled.

C. AFVs: AFV units either in or assaulting into a town or forest hex have their defense values reduced by one. For example, a Soviet T-70 battalion in a town hex would have a defense value of 1, not 2.

D. Bunkers: Units assaulting from a hex containing a bunker do not receive the terrain benefit for the bunker, but instead use the defense value for the town hex.

RULE 13: Frozen Lakes

The lakes shown on the map are frozen throughout the period covered by the game but are sometimes more frozen than others. For this reason the ability and cost to cross a lake hexside is dependent on the weather as shown on the Terrain Effects Chart. In addition to the normal costs and prohibitions shown, under certain circumstances the phasing player will roll for AFV loss through ice collapse.

A. Frozen Turns: On any turn with either clear/frost weather or snow weather, AFV units may cross lake hexsides at the cost shown on the Terrain Effects Chart. Each unit to do so, however, must roll for tank losses. Roll one die per unit per hexside crossed. On a roll of 1, one strength point is lost.

B. Thaw Turns: On any turn with thaw weather AFV units may not cross full lake hexsides at all. In addition, each AFV unit which crosses a hexside containing any lake at all must roll for tank losses as specified above. (Given the generally flat terrain, the sparse vegetation, and the uniform snow covering, it was nearly impossible to tell where lakes began. Consequently a number of Soviet tanks did drive into lakes early in the campaign by mistake.)

RULE 14: Morale

Units are called upon to take morale checks as a result of combat results. Whenever a player must check the morale of a unit, he rolls two dice and compares the result to the morale value printed on the back of the unit counter. The die roll is modified as specified below. If a unit's modified die roll is equal to or less than its printed morale value, the unit has passed its morale check and is unaffected. If the modified die roll is one or two higher than its printed morale value, the unit has failed its morale check. If the modified die roll is three or more higher than its printed morale value, the unit routs.

A. Morale Check Situations: There are three situations in which a unit is required to take a morale check. All are as a result of losses. When required to take a morale check, a unit does so immediately upon suffering the losses.

1. Losses from Antitank Fire: An AFV unit which suffers losses from antitank fire must check morale, adding to the die roll the total number of strength points lost from the fire.

2. Losses from Barrage Fire: A unit which suffers losses from barrage fire must check morale, adding to the die roll the actual number of strength points lost.

3. Losses from Conventional Fire: A unit which receives an MC result from conventional fire must take a morale check, adding to the die roll the number specified on the Conventional Combat Results Table.

B. Effects of Morale Checks: Whenever a non-AFV unit suffers a rout result from a morale check, the unit loses one strength point (in addition to any it may have lost in combat) and is retreated two hexes by the owning player. The retreat route must place the unit two hexes away from its original hex and must be generally away from enemy units to the extent possible, even if this would take the unit through an enemy ZOC. AFV units suffer the same result but do not lose the additional strength point. The result of a less serious failure result varies depending on the situation.

1. Barrage: A unit which checks morale due to a barrage attack and fails may not fire defensive fire that impulse.

2. Defensive Fire: A unit which checks morale due to enemy defensive fire (either conventional or antitank) and fails may not assault.

3. Assault: A defending unit which

checks morale due to the fire of enemy assaulting units (either conventional or antitank) and fails must retreat two hexes in the same manner as a rout result. The unit does not suffer the additional strength point loss.

If a hex is completely vacated of defending units, due to rout or failed morale, then phasing units that assaulted into that hex may occupy the hex, up to the limits of stacking.

C. Additional Considerations:

1. Zones of Control: A unit forced to retreat or rout through an enemy ZOC may do so, but loses one *additional* strength point. If the last hex of the retreat would leave the unit in an enemy ZOC it must retreat additional hexes until no longer in an enemy ZOC. If unable to do so the unit is eliminated instead. A unit never loses more than one strength point due to retreats through ZOCs, regardless of how many the unit retreats through.

2. Tank Fright: German AFV, antitank, and heavy anti-aircraft units, all units stacked with the preceding units, and all units of either side in a town hex are immune to tank fright. All other units are vulnerable to tank fright, *including* Soviet AFV units. Whenever a unit vulnerable to tank fright is assaulted by an enemy stack containing an enemy AFV unit, the defending unit must take a morale check following combat at one level worse than normal. That is, if combat did not require the unit to check morale, it does so with an unmodified die roll. If the combat result called for it to check morale with an adverse die roll modification of 1, it does so with a modification of 2, etc.

3. Supply: Any unit which is isolated (see Rule 15: Supply and Isolation) and which is required to check morale, does so with an additional adverse die roll modification of 1.

4. Friendly Routed Units: A unit checks morale as soon as a combat result calls for it to do so. If an attack on a unit in the hex has already caused that unit to rout, all other units in the hex forced to take a morale check do so with an additional adverse die roll modification of 1. Each unit which routs increases the cumulative additional adverse die roll modification for units checking morale in the hex that phase.

5. Snow: During a snow turn any non-AFV unit required to take a morale check and which is not in a town hex does so with an additional adverse die roll

modification of 1.

6. Bunkers: Any non-AFV unit in a hex containing a bunker which has at least three remaining strength points (and which is not assaulting out of the hex) is never required to take a morale check regardless of the combat result. Bunkers themselves never check morale, regardless of their strength. (See also Rule 19: Bunkers)

7. Cavalry Charges: All German units in a non-town, non-forest hex which are not stacked with an AFV unit and which are charged by Soviet cavalry (see Optional Rule 24: Mounted Cavalry Charge) suffer the same effects as for tank fright as detailed above.

8. Eliminated Units: If an attack on a unit in a hex totally eliminates the unit (due to step loss) then all other units in the hex forced to take morale checks do so with an adverse die roll modification of 1 per unit previously eliminated.

RULE 15: Supply and Isolation

Logistical constraints in White Death are taken into account by three processes: expending supply, tracing supply, and isolation.

A. Expending Supply: Each player receives supply points every turn. Supply points may be expended immediately or accumulated for use in later impulses or turns. Currently accumulated supply points are recorded on the supply track for each side by use of the supply markers. Supply points are expended for four activities: assault, barrage, rocket barrage, and high intensity defensive support.

1. Assault: If the phasing player declares any units to be assaulting in an impulse, he must expend one supply point. The expenditure of one supply point allows as many units as desired to attack.

2. Barrage: If the phasing player wishes to conduct a barrage he must expend two supply points. This is not in addition to the one for assaulting but rather instead of it. If the phasing player expends two supply points, as many units as desired may assault and conduct barrages.

3. Rocket Barrage: Only the German player is required to expend supply for a rocket barrage. If three supply points are expended, as many units as desired may assault and fire barrages. If only two points are expended (for a normal barrage), then all German rocket artillery units conduct barrage fires at half of their printed barrage

factors.

4. High Intensity Defensive Support:

If the non-phasing player expends one supply point, all artillery units may conduct defensive support fires with their printed support factors. If the non-phasing player chooses not to expend one supply point, then all of his artillery units are assumed to have a support factor of 1.

B. Tracing Supply: Tracing supply affects only artillery units. For an artillery unit to conduct indirect fire at full effectiveness it is necessary to trace supply. An artillery unit is in supply if it can trace a path of seven hexes or less to a road or railroad which runs back to a friendly board edge. For the Soviets the eastern edge and the extreme southeastern edge are friendly. All other edges are friendly for the German player. Both the initial seven hexes to the road or railroad, and then the subsequent road or railroad route must be free of enemy units and their zones of control.

Artillery units not in supply may not conduct barrage attacks and have an assumed support factor of 1.

C. Isolation: All units are subject to the effects of isolation. Any unit which cannot trace a path of any length free of enemy units and their zones of control back to a friendly board edge is isolated. Isolated units have their antitank and conventional combat factors halved (retaining fractions unrounded) and if required to take a morale check do so with an additional adverse die roll modification of 1.

D. Velikiye Luki: The Velikiye Luki fortress constitutes a special case. A separate supply marker is provided to keep track of supply points in Velikiye Luki.

1. Receiving Supply Points: Velikiye Luki initially has the same number of supply points as the general German supply pool (2 points on turn 1). Whenever the German player receives supply points, the indicated number is added to the general pool and a like amount is added to Velikiye Luki, so long as a supply route can be traced from any hex of the city. Once a supply route cannot be traced from the city, additional supply points are airdropped in. As before, the number of points airdropped is the same as the number of points called for on the order of appearance, but there is a chance that some or all will be misdropped. Roll the die once for each supply point. In clear/frost weather and in thaw weather the supplies are received on a roll of 1-4.

In snow weather the supplies are received on a roll of 1-2.

2. Expending Supply Points: Velikiye Luki supply points may only be expended to conduct operations with units in Velikiye Luki. Units in Velikiye Luki may only conduct operations requiring the expenditure of supply points if points from the Velikiye Luki reserve are expended. Thus, the troops in Velikiye Luki are effectively a separate entity for supply point purposes from troops outside of Velikiye Luki.

In addition to the normal functions of supply expenditure, the German player may expend one supply point at the beginning of a turn in Velikiye Luki to allow the troops in the city to avoid the effects of isolation.

RULE 16: Weather

At the beginning of each turn the Soviet player rolls a die to determine the weather for the turn. The Turn Record Chart indicates what weather results from the die roll on a turn-by-turn basis. Three weather conditions are possible: clear/frost, thaw, and snow.

A. Clear/Frost: Clear/frost weather is the normal weather condition and has no special effects. All lake hexsides and rivers are frozen.

B. Thaw: Lakes and rivers will not support the weight of heavy equipment. The effects of thaw on lakes are as noted on the Terrain Effects Chart and in Rule 13: Frozen Lakes. Thaw also affects rivers. During thaw weather no track-mobile, wheel-mobile, or draft mobile unit may cross a river except at a bridge. Such units still pay the same movement point cost to enter and leave a river hex, but must leave the river hex on the same side of the river as they entered from.

C. Snow: All lakes and rivers are frozen. Snow affects visibility (Rule 11: Artillery), morale (Rule 14), and the airdropping of supplies to Velikiye Luki (Rule 15).

RULE 17: Reinforcements

New units (reinforcements) appear as called for by the Soviet and German Orders of Appearance. As a general rule, new units appear at the beginning of a player's first impulse, although some units are specifically noted as appearing at the beginning of the player's second impulse. Units appear at one of several entry areas.

A. Soviet Entry Areas: There are three Soviet entry areas. The Northeastern

Entry Area comprises all hexes on the north edge of the map east of the Lowatj River. The Eastern Entry Area comprises all hexes on the eastern edge of the map. The Southeastern Entry Area comprises the eight eastern-most hexes on the south edge of the map.

B. German Entry Areas: There are four German entry areas. The Southern Entry Area comprises the ten hexes on the southern map edge immediately east of the Lowatj River. The Southwestern Entry Area comprises the two southern-most railroads exiting the western edge of the map, and all map edge hexes between them. The Western Entry Area comprises the railroad exiting the map due west of Nowossokoljnik and the four map edge hexes on either side of it. The Northwestern Entry Area comprises the railroad exiting the map in the northwest corner and the four map edge hexes on either side of it.

C. Impulse of Entry: Reinforcements enter the map by paying the MP cost to enter the map edge hex they appear in. A unit may appear in any map edge hex of its specified entry zone.

D. Alternate Entry Zones: Any German unit scheduled to appear in the Southern Entry Zone may appear the same turn in the Southwestern Entry Zone. Any German unit scheduled to appear in either the Southern or Southwestern Entry Zone may appear one turn later in the Western Entry Zone.

E. Closed Entry Zones: If there are no German units south of Velikiye Luki and east of the Lowatj River no German unit may appear in the Southern Entry Zone. If there are no German units within ten hexes of the southern map edge, no German units may appear in the Southwestern Entry Zone.

F. Optional Reinforcements: The entire German 7th *Flieger* Division was stationed at Velizh (about 20 miles southeast of the south edge of the map) and could have been committed to the battle except for *Reichsmarschall* Goering's desire to maintain it as a force in being. As it was, only one battalion was committed to battle (that shown on the German setup chart). At the start of the first German impulse of turn 12, the German player rolls a die. On a roll of 1-5 only the single parachute battalion (III/1) is received. On a roll of 6 the entire 7th *Flieger* Division is received.

German staff appraisals after the battle make much of the fact that the relief attempt came very close to succeeding

without the entire 7th *Flieger* Division and that with all of this elite division in action the success of the drive would have been assured. As with many "might have beens" this assumes that the Soviets would have done nothing different. In fact, 3rd Shock Army retained one excellent Rifle Division in army reserve and there were two divisions and a brigade on the flanks of the battle area, either in reserve or very lightly engaged, which in an emergency could have been committed. As a result, if the German player rolls a 6 and thus receives the entire 7th *Flieger*, the Soviet player at the start of his next impulse rolls the die once for each of the following units: 54th Rifle Brigade, 24th Cavalry Division, and 334th Rifle Division. On a roll of 1-4 the indicated unit is received. In addition, the Soviet player automatically receives the 47th "Nevel" Rifle Division. All units appear in the entry areas indicated on the Soviet Order of Appearance.

RULE 18: Replacements

Replacements represent drafts of new men used to bring depleted units up to strength. Both the German and Soviet players receive replacement points as specified on the orders of appearance. On a player's first impulse of a turn the replacement points received that turn may be added to the strength of any non-isolated personnel unit. Units already completely destroyed may be rebuilt to partial or full strength. German replacement points may only be used in German Army units. Soviet replacement points may be used with any personnel unit. No unit may be raised above its original (printed) strength. German personnel units in Velikiye Luki which have avoided the effects of isolation by expenditure of a supply point may not receive replacements.

Starting on turn 5 and every subsequent turn, both the Soviet player and the German player may repair one strength point of AFVs a turn. That is, any AFV unit in play which is below strength may be raised one strength point.

On turn 10 (only) the Soviet player may refit one tank brigade of his choice. Any tank brigade in play may be refitted. All units of the tank brigade are removed from play at the beginning of the turn and then enter the east edge of the map at full strength at the beginning of the first Soviet impulse of the next turn (turn 11).

RULE 19: Bunkers

The German player initially receives seven bunker counters which are deployed in Velikiye Luki as per the set-up instructions for the scenario being played. Bunkers have a number of unique characteristics. While a bunker is not a unit per se, it has many characteristics of a combat unit. Bunkers have a printed strength (either 10 or 15) and suffer losses from barrage fire which reduce this strength. Each bunker counter has an assumed antitank and conventional combat factor of 1. Thus a bunker with a remaining strength of 7 would have both an antitank and conventional fire value of 7. Bunkers may use their antitank and conventional fire factors only in defensive fire. A bunker unit with a remaining strength of three or more frees any other friendly unit in the hex from the necessity of taking any morale checks, except for units which assault from the hex in that phase. However, AFV units never receive any of the benefits of being in a bunker.

RULE 20: Bridges

A bridge counter in a river hex negates the river for movement purposes and allows units to enter and leave the hex as if it were a road hex. Bridges are not printed on the map as they can be built and destroyed during the course of the game. At the start of Scenario I and the Campaign Game there are four standing bridges across the Lowatj River. The black on white bridge counters without unit identifications are used to represent the four original bridges. (One extra unidentified bridge counter is included in the counter mix; it is a spare and is not used.)

A. Destroying Bridges: Any engineer or construction unit may destroy a bridge by entering the bridge hex and expending one additional MP. The bridge counter is then removed permanently from play.

B. Building Bridges: The four Soviet engineer brigades and the one German bridging battalion are capable of building bridges. Each of these units may build one bridge during the course of the game. Each of these units has a bridge included in the counter mix with the correct unit identification. To build a bridge the unit moves into a river hex and expends one additional movement point. The correct bridge counter is then placed in the hex with the building unit, which may then continue movement if desired. The bridge

remains until destroyed.

RULE 21: Special Units

A number of units in the game have special characteristics or abilities as detailed below.

A. Close Combat Units: All Soviet submachinegun and engineer units and all German engineer, commando, and parachute units are considered close combat units, either by equipment or by training. When either in or assaulting into a town or forest hex close combat units double their antitank and conventional combat factors.

B. German 331st Infantry Division: All things considered, the 331st Division was about as bad as it could be, as a look at its morale values will indicate. One additional handicap that this division of over-aged reservists suffered was that two of the three commanders of the infantry regiments were elderly and in poor health, so much so that they were physically incapable of taking the field. When the division went into action, the one healthy regimental commander had to lead each of the regiments in succession as it attacked. In the game, only one of the three infantry regiments of the division may assault in any one impulse.

C. Brandenburg Commandos: Although later in the war the Brandenburgers were converted to conventional motorized infantry, at this stage they were still chosen and trained for special operations. The elements of the 803rd Regiment present at Velikiye Luki contained a very high proportion of men fluent in Russian, and on several occasions elements of the battalion were able to bluff their way through Soviet lines.

Brandenburg commando companies may attempt to move through Soviet units and their zones of control during the German movement phase. For each hex containing either a Soviet unit or its ZOC entered by a Brandenburg unit or stack of units, roll the die once. On a roll of 1 the Brandenburgers have been found out and end their movement for the phase. If discovered while in a hex with a Soviet unit, the Soviet unit is allowed to run one conventional attack against the unit or units, following which the Brandenburgers are retreated to the hex from which they entered the Soviet-occupied hex.

Brandenburgers may attempt to lead a column of non-Brandenburg troops through Soviet units or ZOC's (and in fact this is how the few troops who

managed to escape from Velikiye Luki did so). Units may stack with one or more Brandenburg units up to the stacking limit and move with it. However, for each non-Brandenburg unit in the stack subtract 1 from the die roll for detection when moving through enemy occupied or controlled hexes.

The German 2/60 tank company (equipped with captured T-34 tanks) when stacked with a Brandenburg company is treated as a Brandenburg unit for purposes of the detection die roll.

D. Tank Destroyers: There are four tank destroyer units in the game: the one German Marder II company, the one Soviet SU-122 battalion, and the two Soviet SU-76 battalions. Tank destroyers behave as AFVs for all purposes except that a tank destroyer may not be attacked by antitank fire unless all other AFV units in the hex are also attacked at odds equal to or greater than those against the tank destroyer unit.

RULE 22: Garrisons

The troops initially placed in Velikiye Luki, Isotcha, and Nowossokolniki in the first scenario and the campaign game are garrison units and may not be moved the first turn. At the beginning of turn 2 the Isotcha and Nowossokolniki garrisons are released and may move freely. At the beginning of the turn the German also rolls a die to determine if the Velikiye Luki garrison is released. On turn 2 the garrison is released on a roll of 1. On turn 3 it is released on a roll of 1 or 2, on turn 4 on a roll of 1-3, etc. Until released, the Velikiye Luki garrison may not leave the city, although it may move freely within the city.

RULE 23: Optional –

Abandoned Equipment

Either player may at any time declare that a weapons unit is abandoning its equipment. A unit which abandons its equipment retains its current remaining strength but immediately has all artillery and antitank factors reduced to 0 and its conventional combat factor reduced to a parenthetical 1. It additionally becomes leg-mobile and is allowed to enter enemy zones of control as if it were a personnel unit (which in fact it has become). No counters are provided to indicate that a unit has abandoned its equipment, but a number of blank counters in the mix may be used for this purpose. Units which have abandoned their equipment are not considered eliminated for victory purposes.

Of course, strength point losses in the units do count as losses for victory. If this rule is used then all weapons units automatically abandon their equipment when they either suffer a rout result or are forced to retreat through an enemy ZOC. The Soviet Guards rocket regiment may not voluntarily abandon its equipment.

Each side may re-equip an unlimited number of weapons units. To re-equip a weapons unit, the unit must be exited from the map at a friendly entry zone. German units appear re-equipped (but still at their former remaining strength) two game turns later. Soviet units appear re-equipped (but still at their former remaining strength) three game turns later. The German player may not re-equip rocket artillery units.

RULE 24: Optional – Cavalry Charge

If the Soviet player receives the 24th Cavalry Division, the three cavalry regiments of the division may execute mounted charges. Mounted charges affect the morale of defending German non-AFV units as detailed in Rule 14: Morale. However, cavalry charges may not be made against a town or woods hex, and the defense value of any unit executing a mounted charge is halved. This rule is optional only in the sense that the Soviet 24th Cavalry Division is an optional reinforcement; if the division appears, the rule is used.

RULE 25: Scenarios

White Death contains five scenarios ranging from two to four game turns in length and a thirteen-turn campaign game. Each scenario covers one of the five distinct phases of the campaign. Each of the scenario descriptions contains the following information:

1. Historical Background and Summary.

2. Losses to Date. This section tells the number of strength points of a general type lost by certain units. The losses may be distributed among the component units of the major unit listed as desired. For example, a listing may read *9th Guards Rifle Division: 6 SP infantry, 2 SP artillery*. The 6 strength points of infantry losses could be distributed among the three component regiments of the division as desired and the artillery losses could be distributed among the artillery battalions as desired.

3. Set-Up Areas: This section delineates where units may be initially deployed. In all scenarios and the campaign

game the German player sets up first. Soviet units may then set up anywhere within their set-up limits but not in a German-occupied hex or in a German ZOC.

4. Victory Conditions: Victory con-

ditions are phrased in terms of casualties suffered and victory objectives held. Obtaining victory conditions will give the players victory points, which will provide an indication of level of victory. However, the victory point schedules are at best a

simplistic and crude measure of victory; players are strongly encouraged to rely instead on the historical summaries as a guide to their specific goals and their success in achieving them.

SCENARIO I: Purkayev's Attack (Turns 1-4)

1. Historical Background and Summary: Since the German front was only thinly held, a major rupture of the line was little problem. Purkayev's 3rd Shock Army did face several problems, however. First among these was a real shortage of heavy artillery. Although Kalinin Front made available one heavy mortar regiment and one heavy artillery regiment, most of the front's supporting assets were tied up in the assault on the Rzhev salient. Once the front stabilized and massive barrages became necessary to break key points of resistance, it would be necessary to rely on massing divisional assets, and that could cause problems. Second, all roads led through Velikiye Luki, and it was unlikely that the city could be taken by immediate direct assault. Until the city was at least partially in Soviet hands it would be difficult to put even divisional artillery across the Lowatj River. The resulting tactical situation was fraught with potential peril: Velikiye Luki had to be taken to threaten the Nevel-Leningrad railroad in strength. Velikiye Luki, to be taken, had to be isolated and then pounded into submission by heavy concentrations of artillery. To surround it troops had to be put across the Lowatj, but to mass the artillery concentration necessary to take the city the troops would have to leave their divisional guns on the east bank, thus leaving them vulnerable to a counterstroke.

Purkayev's solution was probably the only viable option open to him. Infantry and armored elements penetrated the German lines as quickly as possible and made for the Lowatj and the railroad beyond it. Surrounded German units were left behind for the follow-up echelons to deal with. By the end of the first scenario (about twenty days of fighting) the Soviets were across the Lowatj in strength and, while they had little artillery with them and had temporarily run out of steam, they had kept the Germans off-balance. Advanced elements of the 3rd Shock Army had in places been within sight of the vital rail line and had clearly gained a tactical success.

2. Losses: None. All units begin Scenario I at full strength.

3. Set-Up:

A. Germans (set up first):

1. In 3rd Mountain Division Sector (East of Lowatj River, west of Kunja Creek, on or south of the Tabor-Velikiye Luki railroad):

3rd Mountain Division (7 battalions, 2 companies)
743 Engineer Battalion
506 Artillery Battalion
5 Ski-Jaeger Battalion (4 companies)

2. In 83rd Division Sector (East of Lowatj River, west of Kunja Creek, on or north of the Tabor-Velikiye Luki railroad):

83 Infantry Division (less units in Velikiye Luki

garrison) (7 battalions)

3 Ski-Jaeger Battalion (4 companies)

3. In Nowossokoljnik:

248 Construction Battalion
416 Construction Battalion
795 Security Battalion
663 Security Battalion
843 Antiaircraft Battalion
1/55 Rocket Artillery Battalion
111/55 Rocket Artillery Battalion
185 Assault Gun Battalion (2 companies)
3 Bridging Battalion
12/803 Commando Company (Abwehr)

4. In Isotcha:

303 Antiaircraft Battalion

5. In Velikiye Luki:

All units listed on the German Set-Up Chart as Velikiye Luki Garrison (16 battalions)

All seven bunkers (one strength 10 bunker on each rail hex in town, one strength 15 bunker on hex 2021)

B. Soviets: All Soviet units set up in any non-prohibited hex east of the Kunja Creek.

28 Rifle Division (3 rgts, 3 bns)
257 Rifle Division (3 rgts, 3 bns)
44 Ski Brigade (4 bns)
184 Tank Brigade (3 bns)
603 Mortar Regiment
613 Artillery Regiment
3 SA Guards Rocket Regiment

C. General:

One unidentified bridge is placed in each of the following hexes: 2122, 2123, 2025, and 1637.

Neither player begins the scenario with any accumulated supply points beyond those received at the start of the turn.

4. Victory Conditions: The Soviet player receives victory points as follows:

For each 10 SP of German units eliminated: 1 VP

For each 20 SP of Soviet units eliminated: -1 VP

For each bunker totally destroyed or captured: 10 VP

For each town hex held on the north-south railroad through Nowossokoljnik: 5 VP per impulse

Victory level is determined by the following schedule:

0-10 VPs: German Victory

11-20 VPs: Soviet Marginal Victory

21-30 VPs: Soviet Tactical Victory

31-40 VPs: Soviet Strategic Victory

41+ VPs: Soviet Overwhelming Victory

(Historical Result: Soviet Tactical Victory with approximately 22 VPs.)

SCENARIO II: Woehler's Response (Turns 5-7)

1. Historical Background and Summary: For Army Group Center, the attack could not have come at a worse time. The best of the army group reserves were inevitably sucked into the

desperate inferno raging about the Rzhev salient, and no help could be expected from higher up as the High Command desperately juggled troop assignments to find reserves for the cataclysm engulfing the southern flank around Stalingrad. Army Group North was able to part with an understrength Panzer

division, and an infantry division on garrison duty in East Prussia was railed into the area, but major reinforcements beyond these would have to come from what limited army group assets could be shaken loose.

Army group's initial response was to have the troops in Velikiye Luki fight their way out, a task which they were probably capable of given the weakness of the Soviet units actually across the Lowatj. Hitler intervened at this point, however, and demanded that the fortress be held and relieved by attacks from the troops outside the pocket. Army group protested that the troops in the area lacked the strength to break through to the beleaguered garrison, but in retrospect it is probably true that had Velikiye Luki been abandoned in early December it would have been nearly impossible to stop 3rd Shock Army short of Nowossokoljnik and the Nevel-Leningrad railroad.

With the need to rescue the garrison from the outside it soon became obvious that General Chevallier's LIX Corps could not control units both along the entire front and in the pocket as well as coordinate the relief attempt; the operation had simply grown beyond a single corps proposition. Consequently a new headquarters was created — *Gruppe Woehler*, commanded by Lt. General Woehler, Army Group Center's chief of staff. Even by austere German staff standards, the staff of the new command was small — six officers, three clerks, three drivers, and three orderlies, working in a one-room peasant hut. By mid-December Woehler was able to take command of the relief force (now swollen by the addition of a motorized division from Army Group Center reserve) and brought to the command the valuable knowledge that came with the army group chief of staff position — location of supply depots and the ability to call in accumulated favors. Woehler's command was small, but it never lacked winter clothing.

Woehler faced two initial tasks. First, there were two groups of troops cut off southwest of Velikiye Luki, most of the remnants of the 3rd Mountain Division and 83rd Infantry Division that had held the LIX Corps front line. Second, the general front had to be strengthened and prepared to serve as a jumping-off point for the relief drive. Assigning the southern flank to the old LIX Corps units, Woehler instructed the encircled troops to fight their way out on their own. The southern flank was not much of a concern as the II Luftwaffe Corps holding the area to the south (off the map) was only lightly engaged and could probably shake loose a division in the near future. The northern flank was nearly impassable and could be guarded by small detachments. Consequently, Woehler used his main strength to reinforce the center and clear the area up to the Guschtschino-Tschernosjom line. The relief attempt, when launched, would drive northeast from this line, with its flanks protected by lakes to the north and the Lowatj to the east.

2. Losses:

A. German:

- 1 Ski-Jaeger Battalion: 2 SP ski
- 3 Ski-Jaeger Battalion: 1 SP ski, 1 SP antitank
- 8 Panzer Division: 3 SP motorized infantry, 1 SP Pz

III, 2 SP antitank

- 291 Infantry Division: 1 SP heavy infantry

83 Infantry Division (excluding units in Velikiye Luki): 8 SP infantry, 3 SP heavy infantry

- 3 Mountain Division: 4 SP Mountain Infantry, 1 SP antitank, 1 SP engineer

20 Motorized Division: 2 SP motorized infantry
185 Assault Gun Battalion: 2 SP assault guns (1 each company)

Non-divisional personnel units (security, construction, etc.): 9 SP

Velikiye Luki garrison: 6 SP infantry, 5 SP antiaircraft,
22 SP bunkers (hexes 2522 and 2422 vacant)

B. Soviet:

21 Guards Rifle Division: 3 SP artillery, 15 SP infantry

46 Guards Rifle Division: 8 SP infantry, 5 SP tanks

9 Guards Rifle Division: 1 SP infantry

28 Rifle Division: 14 SP infantry

381 Rifle Division: 14 SP infantry

257 Rifle Division: 3 SP infantry

44 Ski Brigade: 1 SP

45 Ski Brigade: 2 SP

184 Tank Brigade: 1 SP SMG, 2 SP T-70

3 SA Guards Rocket Regiment: 3 SP

3. Set-Up:

A. Germans:

1. In Velikiye Luki (in any bunker hexes):
Original Velikiye Luki garrison.

2. On or adjacent to Tschernosjom (hex 1430):

3 Mountain Division (7 battalions)

743 Engineer Battalion

506 Artillery Battalion

5 Ski-Jaeger Battalion (4 companies)

3. On or adjacent to hex 1734:

Any four battalions of 83 Division (other than those in Velikiye Luki).

4. East of the Lowatj River, west of hex row 1900:

All remaining units of 83 Infantry Division.

5. Outside of (west and/or south) of the area enclosed by hex row 1000 south to hex 1034, southeast to hex 1637, and southwest along the Lowatj River. (German units may deploy on this line or south/west of it.)

All other German troops.

B. Soviets:

1. East of the above line, west of the Lowatj River:

All units of 18, 34, and 43 Mechanized Brigades.

All units of 33, 34, and 184 Tank Brigades.

All units of 44 and 45 Ski Brigades.

All units of 31 Rifle Brigade

Infantry and armored units of 28, 381, 9 Guards, 19 Guards, and 28 Guards Rifle Divisions.

68 Motorcycle Battalion.

2. West of the Lowatj River and hex row 1900:

All other Soviet troops.

C. General:

All of the original bridges have been destroyed except in hexes 2123 and 1637.

The Soviet player may place the 3 SA bridge in any hex of the Lowatj River north of hex 2034 and not in Velikiye Luki.

The German player starts with 3 supply points in Velikiye Luki and 1 supply point in the general pool. The Soviet player starts with no supply points accumulated.

4. Victory Conditions: The Soviet player receives victory points as follows:

For each 10 SP of German units above 50 eliminated: 1 VP

For each 20 SP of Soviet units above 80 eliminated: -1 VP

For each bunker totally destroyed or captured: 10 VP

For each of the following towns held at the end of the scenario — Guschtschino, Tschernosjom, Kostelew: 5 VP
For Velikiye Luki remaining isolated at the end of the scenario: 20 VP

For each town hex held on the north-south railroad through Nowossokoljniki: 5 VP per impulse

Victory level is determined by the following schedule:
0-20 VPs: German Strategic Victory

21-30 VPs: German Tactical Victory
31-40 VPs: German Marginal Victory
41-50 VPs: Soviet Marginal Victory
51-60 VPs: Soviet Tactical Victory
60+ VPs: Soviet Strategic Victory
(Historical Result: German Tactical Victory with approximately 27 VPs.)

SCENARIO III: The First Relief Attempt (Turns 8-9)

1. Historical Background and Summary: The isolated elements of 3rd Mountain Division and 83rd Infantry Division had broken out. The front on the south, a more difficult proposition than had been envisioned, had been stabilized by the intervention of 1st SS Motorized Brigade, and in fact Soviet troops had been drawn off the more important central front by the SS attack. The troops in Velikiye Luki were grudgingly losing ground, but exacting a stiff price for it. In the central area ground had been gained. In short, all of Woehler's most important goals had been at least partially achieved. It was time for the relief attempt itself to be launched.

Purkayev, while not complacent, must have met Woehler's first relief attempt with more confidence than he had felt for the last two weeks. With the bulk of 2nd Mechanized Corps in action across the Lowatj River, he could at least match any armored strength the Germans would throw against him, but the fact remained that the Germans had definitely regained the initiative. The Red Army's task now was to repulse the German attack with sufficiently bloody losses both to maintain the siege of Velikiye Luki and stand a chance of resuming the drive toward the Nevel-Leningrad railroad.

The drive was launched shortly before Christmas and made good initial progress, but it bogged down at about the half way point in the face of mounting Soviet resistance.

2. Losses:

A. German:

1 Ski-Jaeger Battalion: 2 SP ski, 1 SP antitank
3 Ski-Jaeger Battalion: 1 SP ski, 1 SP antitank
8 Panzer Division: 4 SP motorized infantry, 1 SP armored infantry, 1 SP Pz III, 2 SP Pz 38t, 2 SP antitank
291 Infantry Division: 1 SP heavy infantry, 1 SP engineer, 3 SP infantry
83 Infantry Division (excluding elements in Velikiye Luki): 9 SP infantry, 3 SP heavy infantry, 2 SP artillery
20 Motorized Division: 4 SP motorized infantry
3 Mountain Division: 5 SP mountain infantry, 1 SP mountain artillery
185 Assault gun Battalion: 3 SP assault guns
RFSS Motorized Brigade: 2 SP motorized infantry, 1 SP heavy infantry, 1 SP assault guns
Non-divisional personnel units: 14 SP
Velikiye Luki garrison: 12 SP personnel, 8 SP AA, 1 SP rocket artillery, 42 SP bunkers (hexes 2522, 2422, 2222 vacant)

B. Soviet:

21 Guards Rifle Division: 3 SP artillery, 15 SP infantry
46 Guards Rifle Division: 8 SP infantry, 6 SP tanks
9 Guards Rifle Division: 5 SP infantry
28 Rifle Division: 7 SP infantry
381 Rifle Division: 14 SP infantry
257 Rifle Division: 6 SP infantry
360 Rifle Division: 4 SP infantry
7 Estonian Rifle Division: 6 SP infantry

249 Estonian Rifle Division: 2 SP infantry
44 Ski Brigade: 2 SP
45 Ski Brigade: 5 SP
31 Rifle Brigade: 2 SP infantry, 1 SP artillery
184 Tank Brigade: 1 SP SMG, 3 SP T-70, 2 SP T-34
92 Tank Brigade: 1 SP KV-1.
33 Tank Brigade: 2 SP T-70, 1 SP T-34
34 Tank Brigade: 1 SP SMG, 2 SP T-70
18 Mechanized Brigade: 2 SP T-34, 2 SP motorized infantry
34 Mechanized Brigade: 1 SP T-70, 1 SP motorized infantry
43 Mechanized Brigade: 1 SP T-70

3. Set-Up:

A. Germans (set up first):

1. In Velikiye Luki (in any bunker hex):
Original Velikiye Luki garrison.
2. Outside of (west and/or south) the area enclosed by hex row 1200 south to hex 1229, southeast to hex 2134, and south to hex row 2100 to the southern edge of the map:
All other available German units.

B. Soviets:

1. Inside the area indicated above, inclusive:
All available Soviet units. (At least 20 artillery units must be on the east side of the Lowatj River.)

C. General:

All of the original bridges are eliminated except the one in hex 1637.

The Soviet player may initially place the 3 SA and 2 MC bridges on any hex of the Lowatj River north of hex 2034 not in Velikiye Luki.

The German player has 2 supply points in Velikiye Luki and 1 supply point in his general pool. The Soviet player has no supply points accumulated.

4. Victory Conditions: The Soviet player receives victory points as follows:

For each 10 SP of German units above 80 eliminated at the end of the scenario: 1 VP

For each bunker totally destroyed or captured: 10 VP

For Velikiye Luki remaining isolated at the end of the scenario: 20 VPs

For each town hex held on the north-south railroad through Nowossokoljniki: 5 VP per impulse

For each 20 SP of Soviet units above 100 eliminated at the end of the scenario: -1 VP

Victory level is determined by the following schedule:

0-10 VPs: German Strategic Victory
11-20 VPs: German Tactical Victory
21-30 VPs: German Marginal Victory
31-40 VPs: Soviet Marginal Victory
41-50 VPs: Soviet Tactical Victory
51+ VPs: Soviet Strategic Victory
(Historical Result: Soviet Marginal Victory with approximately 31 VPs.)

SCENARIO IV: The Second Relief Attempt (Turns 10-11)

1. **Historical Background and Summary:** *Gruppe Woehler* had failed in its first attempt to break through to Velikiye Luki but had managed to inflict severe losses on the defending Soviet units. 3rd Shock Army troops had been severely hampered by a scarcity of divisional artillery on the west bank and had been forced to accept disproportionate manpower and armored vehicle losses to make up for the deficiency and keep the pocket sealed. More guns were coming across now, however, and ammunition was getting across in the critical area around Velikiye Luki itself. *Gruppe Woehler's* drive had been terminated in the face of this mounting resistance and could only be resumed when additional troops became available.

The troops made available to beef up the relief attempt consisted of two additional infantry divisions, but it soon became apparent that only one of them was capable of making a significant offensive contribution. Another attempt had to be made, though, as the situation in Velikiye Luki was becoming desperate. The fortress was now permanently cut in half, and on January 5 the Soviets had cleared both sides of the Lowatj River in the town by a converging north-south attack. Unless the siege could be lifted immediately, the garrison was finished.

Woehler's second relief thrust made good ground and came within about three miles of linking up with the troops in the Citadel, but Purkayev's weary tankers and riflemen found the energy to go over again to the offensive, this time against the flanks of Woehler's penetration, and the German spearhead itself was forced to go over to the defensive to avoid encirclement.

2. Losses:**A. German:**

1 Ski-Jaeger Battalion: 2 SP ski, 1 SP antitank
 3 Ski-Jaeger Battalion: 2 SP ski, 1 SP antitank
 5 Ski-Jaeger Battalion: 1 SP ski
 8 Panzer Division: 6 SP motorized infantry, 2 SP armored infantry, 1 SP Pz III, 4 SP Pz 38t, 2 SP antitank
 291 Infantry Division: 2 SP heavy infantry, 2 SP engineer, 5 SP infantry
 83 Infantry Division (excluding elements in Velikiye Luki): 9 SP infantry, 4 SP heavy infantry, 3 SP artillery
 20 Motorized Division: 6 SP motorized infantry, 1 SP motorcycle, 1 SP engineer
 3 Mountain Division: 5 SP mountain infantry, 1 SP mountain artillery
 185 Assault Gun Battalion: 3 SP assault guns
 RFSS Motorized Brigade: 3 SP motorized infantry, 1 SP heavy infantry, 1 SP armored infantry, 1 SP assault gun
 205 Infantry Division: 1 SP infantry
 331 Infantry Division: 2 SP infantry
 18 Panzer Battalion: 1 SP Pz III
 Non-divisional personnel units: 16 SP
 Velikiye Luki garrison: 16 SP personnel units, 8 SP antitankcraft, 1 SP rocket artillery, 2 SP field artillery, 54 SP bunkers (hexes 2522, 2422, 2123, and 2222 vacant)

B. Soviet:

9 Guards Rifle Division: 7 SP infantry, 4 SP artillery
 19 Guards Rifle Division: 2 SP infantry
 21 Guards Rifle Division: 16 SP infantry, 3 SP artillery
 46 Guards Rifle Division: 9 SP infantry, 6 SP T-34
 28 Rifle Division: 7 SP infantry

257 Rifle Division: 9 SP infantry
 360 Rifle Division: 6 SP infantry
 381 Rifle Division: 14 SP infantry, 2 SP artillery
 7 Estonian Rifle Division: 10 SP infantry, 2 SP artillery
 249 Estonian Rifle Division: 6 SP infantry
 44 Ski Brigade: 3 SP
 45 Ski Brigade: 6 SP
 31 Rifle Brigade: 4 SP infantry, 1 SP artillery
 100 Rifle Brigade: 2 SP infantry
 389 Tank Destroyer Regiment: 2 SP SU-76
 33 Tank Brigade: 2 SP T-70, 2 SP T-34, 1 SP SMG
 34 Tank Brigade: 3 SP T-70, 2 SP T-34, 2 SP SMG
 45 Tank Brigade: 2 SP T-70
 92 Tank Brigade: 1 SP KV-1
 129 Tank Brigade: 1 SP T-60, 1 SP T-34
 184 Tank Brigade: all units eliminated
 18 Mechanized Brigade: 2 SP T-70, 3 SP motorized

infantry

34 Mechanized Brigade: 1 SP T-70, 2 SP motorized

infantry

43 Mechanized Brigade: 2 SP T-70, 2 SP T-34, 4 SP motorized infantry, 1 SP artillery

3. Set-Up:**A. Germans:**

1. In Velikiye Luki (in any bunker hex):

Original Velikiye Luki garrison.

2. Outside of (west and/or south) the area enclosed by hex row 1200 south to hex 1223, southeast to hex 1726, south to hex 1732, southeast to hex 2435, and south along hex row 2400 to the south edge of the map:

All other German units.

B. Soviets:

Inside the area described above, including the border hexes:

All Soviet troops.

C. General:

All of the original bridges except for the one in hex 1637 are destroyed.

The Soviet player may have up to all four of his bridges built on the Lowatj River in any hex north of hex 2132 not in Velikiye Luki.

The German player begins the scenario with one supply point accumulated in the general pool and two supply points in Velikiye Luki. The Soviet player has no supplies accumulated.

4. **Victory Conditions:** The Soviet player receives victory points as follows:

For each 10 SP of German units above 110 eliminated at the end of the scenario: 1 VP

For each 20 SP of Soviet units above 170 eliminated at the end of the scenario: -1 VP

For each bunker totally destroyed or captured: 10 VP

For Velikiye Luki remaining isolated at the end of the scenario: 20 VP

For each town held on the north-south railroad through Nowossokolniki: 5 VP per impulse

Victory level is determined by the following schedule:

0-10 VPs: German Strategic Victory

11-20 VPs: German Tactical Victory

21-30 VPs: German Marginal Victory

31-40 VPs: Soviet Marginal Victory

41-50 VPs: Soviet Tactical Victory

51+ VPs: Soviet Strategic Victory

(Historical Result: Soviet Marginal Victory with approximately 32 VPs.)

SCENARIO V: The Final Relief Attempt (Turns 12-13)

Gruppe Woehler and 3rd Shock Army now staggered as two punch-drunk fighters, both seriously hurt and neither able to gain a decisive advantage over the other. There was little hope of relieving what scattered parts of the Velikiye Luki garrison remained in the ruined city, but 3rd Shock Army had abandoned hope of cutting the Nevel-Leningrad railroad as well. While the Germans had avoided complete disaster, they had paid too high a price in blood to do so, and all that remained was to attempt to salvage as much as possible. Woehler decided on one final attempt to rescue as many survivors from the Citadel area as possible. Where brute force had failed, perhaps guile would succeed. The Brandenburgers would make their way through the Soviet lines and then spearhead a breakout attempt by the defenders of the Citadel. On January 10 a company of Brandenburgers riding on captured T-34 tanks and German assault guns broke into the city. The breakout attempt came on the night of January 13-14 and was to link up with the relief attempt now spearheaded by a fresh battalion of paratroopers (the only battalion released by 7th *Flieger* Division). A handful of troops managed to break through.

2. Losses:

A. German:

1 Ski-Jaeger Battalion: 2 SP ski, 1 SP antitank
 3 Ski-Jaeger Battalion: 2 SP ski, 1 SP antitank
 5 Ski-Jaeger Battalion: 1 SP ski
 8 Panzer Division: 6 SP motorized infantry, 2 SP armored infantry, 1 SP Pz III, 5 SP Pz 38t, 2 SP antitank
 291 Infantry Division: 2 SP heavy infantry, 2 SP engineer, 5 SP infantry
 83 Infantry Division (excluding elements in Velikiye Luki): 9 SP infantry, 4 SP heavy infantry, 3 SP artillery
 20 Motorized Division: 8 SP motorized infantry, 2 SP motorcycle, 2 SP engineer
 3 Mountain Division: 5 SP mountain infantry, 1 SP mountain artillery
 185 Assault Gun Battalion: 3 SP assault guns
 RFSS Motorized Brigade: 4 SP motorized infantry, 2 SP heavy infantry, 2 SP armored infantry, 2 SP assault guns
 205 Infantry Division: 4 SP infantry, 2 SP heavy infantry
 331 Infantry Division: 8 SP infantry, 1 SP engineer
 18 Panzer Battalion: 1 SP Pz II, 3 SP Pz III, 1 SP Pz IV
 Non-divisional personnel units: 16 SP
 Velikiye Luki garrison: 22 SP personnel, 10 SP anti-aircraft, 1 SP rocket artillery, 4 SP artillery, 63 SP bunkers (hexes 2522, 2422, 2222, 2123, and 2022 vacant).

B. Soviet:

9 Guards Rifle Division: 8 SP infantry, 4 SP artillery
 19 Guards Rifle Division: 5 SP infantry
 21 Guards Rifle Division: 17 SP infantry, 3 SP artillery
 46 Guards Rifle Division: 11 SP infantry, 6 SP T-34
 28 Rifle Division: 9 SP infantry
 32 Rifle Division: 2 SP infantry
 257 Rifle Division: 9 SP infantry, 3 SP artillery
 357 Rifle Division: 3 SP infantry
 360 Rifle Division: 7 SP infantry
 381 Rifle Division: 14 SP infantry, 2 SP artillery
 7 Estonian Rifle Division: 10 SP infantry, 2 SP artillery

249 Estonian Rifle Division: 7 SP infantry

44 Ski Brigade: 4 SP

45 Ski Brigade: 6 SP

31 Rifle Brigade: 4 SP infantry, 1 SP artillery

100 Rifle Brigade: 4 SP infantry

389 Tank Destroyer Regiment: 2 SP SU-76, 1 SP

SU-122

33 Tank Brigade: 3 SP T-70, 2 SP T-34, 1 SP SMG

34 Tank Brigade: 3 SP T-70, 2 SP T-34, 2 SP SMG

45 Tank Brigade: 3 SP T-70, 2 SP T-34

92 Tank Brigade: 2 SP KV-1

184 Tank Brigade (rebuilt): 1 SP T-70

18 Mechanized Brigade: 3 SP T-70, 3 SP motorized infantry

34 Mechanized Brigade: 2 SP T-70, 1 SP T-34, 2 SP motorized infantry

43 Mechanized Brigade: 2 SP T-70, 2 SP T-34, 5 SP motorized infantry, 1 SP artillery

3. Set-Up:

A. Germans:

1. In Velikiye Luki (in any bunker hex; each bunker hex must have at least 1 personnel unit):

Original Velikiye Luki garrison

2. Outside (west and/or south) of the area enclosed by hex row 1200 south to hex 1225, northeast to hex 1622, southeast to hex 1823, south to hex 1830, southeast to hex 2534, and south on hex row 2500 to the south map edge:

All other German units

B. Soviets:

Inside the area described above, including the border hexes:

All Soviet units.

C. General:

All of the original bridges except for the one in hex 1637 are destroyed.

The Soviet player may have up to all four of his bridges built on the Lowatj River in any hex north of hex 2132.

The German player begins the scenario with one supply point accumulated in Velikiye Luki.

4. Victory Conditions: The Soviet player receives victory points as follows:

For each 10 SP of German units above 140 eliminated at the end of the scenario: 1 VP

For each 20 SP of Soviet units above 190 eliminated at the end of the scenario: -1 VP

For each SP of German units initially in Velikiye Luki which survives: -1 VP

For each town held on the north-south railroad through Nowossokoljnik: 5 VPs per impulse

For each bunker totally destroyed or captured: 10 VP

Victory level is determined by the following schedule:

0-10 VPs: German Strategic Victory

11-20 VPs: German Tactical Victory

21-30 VPs: German Marginal Victory

31-40 VPs: Soviet Marginal Victory

41-50 VPs: Soviet Tactical Victory

51+ VPs: Soviet Strategic Victory

(Historical Result: German Tactical Victory with approximately 18 VPs.)

SCENARIO VI: The Velikiye Luki Campaign (Turns 1-13)

1. **Historical Background and Summary:** See notes for previous scenarios.

2. **Losses:** none

3. **Set-Up:** as for Scenario I.

4. **Victory Conditions:** The Soviet player receives victory points as follows:

For each 10 SP of German units eliminated: 1 VP

For each 10 SP of isolated German units eliminated: 1 (additional) VP

For each 20 SP of Soviet units eliminated: -1 VP

For each town held on the north-south railroad through Nowossokoljnik: 5 VP per impulse

For each bunker destroyed or captured: 5 VP

Victory level is determined by the following schedule:

0-20 VPs: German Strategic Victory

21-30 VPs: German Tactical Victory

31-40 VPs: German Marginal Victory

41-50 VPs: Soviet Marginal Victory

51-60 VPs: Soviet Tactical Victory

61+ VPs: Soviet Strategic Victory

(Historical Result: Soviet Tactical Victory with approximately 55 VPs.)

DESIGNER'S NOTES

I. **The Battle:** The introduction to the rules and the historical commentary for each scenario cover most of the important points of the battle around Velikiye Luki in the winter of 1942/43, but a couple additional points deserve mention. Velikiye Luki has not received as much attention as might be expected as it has largely been overshadowed by the battles around Stalingrad and Rzhev taking place at the same time. Nevertheless, Velikiye Luki was important both in its own right and in the context of the other two battles.

Velikiye Luki is a small battle only by comparison to the truly massive battles of Rzhev and Stalingrad. The Red Army committed thirteen divisions and sixteen major brigades to the action and the Germans responded with eight complete (or nearly so) divisions and the manpower equivalent of at least four more divisions in non-divisional units. The battle is important also in that it serves as an interesting disproof of what has come to be the conventional wisdom on the middle period of the fighting on the Eastern Front. It has often been held that in this period the Soviets succeeded offensively only when several factors were in their favor; generally, careful planning and overwhelming numbers are considered pre-requisites. At Velikiye Luki, however, Purkayev's 3rd Shock Army was fighting under far-from-ideal conditions. While outnumbering the German troops committed, the Soviet superiority was hardly overwhelming considering the objectives of the assault. Counting all troops committed to action throughout the battle, Purkayev held a bare 1.5:1 superiority over Woehler's force in both infantry and and guns of 75mm and above (although this does include German security units, construction battalions, etc. in the proportion, as these units were thrown into the fighting). Only in armor did the

Purkayev hold a 3:1 edge, with about 500 Soviet tanks facing around 160 German AFVs of all types. While failing in its ultimate goal of cutting the Nevel-Leningrad railroad, 3rd Shock Army nevertheless managed to inflict a clear tactical reverse on the German forces in the Velikiye Luki area.

One measure of the German reverse is the scale of casualties suffered: *Gruppe Woehler* had been bled white by the end of the action. While admitting this fact in general terms, post-war German sources have nevertheless tended to play down the magnitude of German losses. The joint U.S.-German collaboration after the war, entitled *Operations of Encircled Forces*, claims that 5,000 troops were lost in Velikiye Luki itself, while Carrell's *Scorched Earth* admits to 7,500. In fact, examination of the initial strength of the garrison, combined with the fact that fewer than 500 German troops escaped the encirclement, yields a loss figure of between 9,000 to 10,000 men as a minimum. Adding the 12,000 casualties that *Operations of Encircled Forces* attributes to the relief force yields a minimum German casualty figure of 22,000 men, and this does not include losses suffered by German units in the area but not in the relief attempt (3rd Mountain Division, for example, which took a severe beating).

A final consideration is the effect Velikiye Luki had on the other operations taking place simultaneously. It is difficult to tell what effect, if any, it had on the Rzhev salient offensive; since that Soviet offensive was a costly failure, there has been little speculation as to what effect additional German troops would have had. If anything, Velikiye Luki may have had a more important effect on the Stalingrad fighting, even though that was much further away. Two good divisions, the 20th Motorized and the 291st Infantry, had already been alerted for transfer to Army Group South when it proved necessary to commit them to the Velikiye

Luki area instead.

II. **The Game System:** Every game company has a more-or-less standard procedure for game research, design, and development, and the Workshop is no exception. *White Death*, however, is a rather notable departure from procedure for us. As a glance at the game credits will reveal, the major research work on the game was done by Shelby Stanton, who may be familiar to you as an author on a number of military subjects. Shelby has been a friend for some time and has helped on a number of research projects in the past. This time, however, Shelby picked the subject, did the research, and then submitted the entire package to us. All we needed to supply was a game system. (This was done after considerable advance negotiations and only because, from past experience, we have come to value and trust Shelby's work greatly. Please don't try this yourself.) This approach could have foundered on a number of reefs, but Shelby is also an experienced gamer and much of his research was in operational accounts rather than exclusively in raw OB and map material. Consequently, he was able to choose a map scale and unit level around which to work, one that was retained with only slight modification.

With the bulk of the research out of the way (about all we did was to fill in spots as to some Soviet unit identifications), I had the opportunity to concentrate on operational accounts and play around a lot with the game system, trying to achieve an integrated movement/combat system which would have some elements of simultaneity to its as well as a strong tactical feel for combat resolution. There isn't much that is radically new about the final system, but it is put together a little differently than usual.

Part of the inspiration for the movement system comes from a British game, *Desert Rats*. This game, for those of you who haven't seen it, allows all units on a

side to move and fight, with all units having expended as many movement points as the unit that moved the farthest. A player keeps doing this until all of his units have exhausted their movement points. It struck me that this was a fairly clever way of changing movement more towards an expression of the passage of time rather than just coverage of terrain. The problem I saw with it is that, with different movement factors for different unit types, fast units did not actually get anywhere faster; instead, they just kept moving after everyone else had stopped. To remedy this, I grafted on the movement system from our old game *Avalanche* — all units have the same number of movement points but expend them at different rates based upon mobility categories. *Avalanche* had only three mobility categories (leg, track, and wheel), and one of the things I found so attractive about the Velikiye Luki system was that it allowed a progressive refinement of the system by the addition of four more categories. (I considered adding sled-mobile, but I could find no clear evidence that anyone in the battle was primarily sled-mobile, and good ideas can be carried too far.)

The combat system is a modification of the system used in *Operation Crusader* with considerable adjustments for the difference in relative turn length. Morale was retained as an important element of the system in that it provided one more way to shade the relative values of units. One of the elements of the battle that I found most interesting, as I mentioned before, was the great diversity of units involved, in terms both of type and quality. It seemed to me that to fail to reflect that diversity would do the situation a severe disservice.

An area where I felt refinement was required over the *Operation Crusader* combat system was the procedure for allocating supporting artillery and observing for it. The smaller number of major formations and the higher reliance on created battle groups in Africa made for a generally higher degree of flexibility in cross-attachment of units than was desirable in an east front game, hence the greater attention in the rules to considerations of divisional integrity and artillery observation. Owners of Jack Radey's *Korsun Pocket* game will recognize that my observation rules have been greatly influenced by it.

With fairly involved movement and combat rules already settled on, my pri-

mary remaining concern was to keep the game as playable as possible. To this end I kept the profile of the supply rule as low as was possible while keeping it consistent with its effect upon the battle; I eliminated air power altogether as it had virtually no overall impact on the outcome (aside from the airdropping of supplies into Velikiye Luki, which has been abstracted).

III. Soviet Units: I will attempt in this section to answer as many questions about the Soviet units that were asked by the playtesters as I can recall, as well as explain some of the things I feel might raise questions in your mind.

1. Soviet Armor: The Soviet tanks in the game, when compared to the anti-tank and defense ratings of German AFVs, definitely come off second-best. The thing to remember is that just because a counter has a silhouette of one T-34 doesn't mean that the relative value ratings are for one-to-one tank fights. Each Soviet counter is a tank battalion and each German counter is a tank company. Thus Soviet factors take into account both a generally lower level of tactical proficiency and the more primitive command and control procedures. This latter consideration is the reason Soviet tank units are vulnerable to tank fright. There were several times in the battle when Soviet armor either appeared to or actually did panic in the face of relatively small numbers of German AFVs. One solution would have been to give Soviet AFVs very low morale ratings, but that would not really have been the answer. The problem was not Soviet tank crew morale but rather was a difficulty in coping with fluid action.

Many of you will notice that the Soviet tank units identified as KV-1s bear the silhouette of a KV-85. Absolutely correct, and I'm afraid I have to assume responsibility for that. The unit is listed as having "KV tanks" and without thinking I requested KV-85 silhouettes from the art department. I later realized that these could not be KV-85s (a bit early for them) and changed the unit ratings accordingly, but I forgot to let the art department in on the news.

2. Soviet Artillery: To keep clutter on the backs of the counters down to a minimum, we did not print the weapon type with which a unit was equipped. All Soviet divisional artillery regiments were equipped with a mixture of 76mm and 122mm guns. The first and second battalions of the regiment consisted of two

batteries (of four guns each) of the former and one battery of the latter. The third battalion of the regiment consisted of one battery of each. The organic artillery of the rifle and mechanized brigades was equipped with 76mm guns. The single artillery brigade in the game had about 30 152mm howitzers. The heavy mortar regiment consisted of two battalions, each with three batteries, each with six 120mm mortars. The corps- and army-level independent artillery regiments each consisted of three battalions, each of three batteries, each of two 122mm guns.

The single guards rocket regiment is, of course, equipped with Katyusha multiple rocket launchers. Earlier in the war, these units were available in only limited numbers and army and front commanders were usually held personally responsible for preventing their loss. By the time of Velikiye Luki, loss of a rocket regiment was not as likely to end a general's career abruptly, but there was still a strong premium on their remaining intact, hence the prohibition against the unit abandoning its equipment.

3. Soviet Unit Identification and Composition: We were lucky in that we were able to discover most of the Soviet unit IDs down to battalion level for the units engaged at Velikiye Luki. There are some exceptions, and, in an attempt at truth in counter identification, these are indicated with a question mark. Some Soviet units have been omitted from the game and are divided instead among other units both as a measure of counter economy and to provide Soviet units that are included with a little healthier combat factor. Specifically, each rifle division's engineer battalion (160 men) and anti-tank battalion (twelve 45mm guns and thirty-six antitank rifles) is incorporated in the strength of its component infantry regiments. In each of the rifle brigades, the brigade mortar battalion (twelve 82mm and four 120mm mortars) is incorporated in the strength of its rifle battalions.

The exact supporting artillery available to 3rd Shock Army (other than the 603rd and 613th regiments) is not known, but it is known that the army was below strength in heavy artillery and drew on its divisional guns to make up the difference. The artillery units included in the game are a guess, but probably a pretty close one.

There are several unusual armored units in the game that bear mention. The 92nd Tank Brigade is definitely equipped

with KVs (21 operational when committed) although these vehicles were almost always concentrated in breakthrough tank regiments. On the other hand, the 34th Breakthrough Tank Regiment, which would normally have KVs, instead initially had 44 T-34s. The two organic tank battalions of the 36th Tank Brigade are known, but the reinforcing battalion is not. The only evidence of this reinforcement is a German intelligence report at the time from the area which lists the brigade's strength as 88 mixed T-34s and T-70s, well over a brigade's standard strength of 53 tanks. Apparently suspecting a transcription error, an anonymous German staff officer wrote in the margin, "Is this verifiable?" The response written in another hand was "Yes." During the battle, the 184th Tank Brigade was destroyed and rebuilt. When rebuilt, it was also redesignated the 78th Tank Brigade, which caused some temporary confusion in German intelligence. Separate counters for the 78th are not included. One final armored unit, which (in contrast to the others) is a guess, is the unidentified T-60 battalion of the 24th Cavalry Division. All we know about the division at that time is that it consisted of the three horsed cavalry regiments listed and apparently did not have any divisional artillery present; it was listed as "partially mechanized".

4. If I Had to Do It Over Again . . .

Now that all is finalized, if I had to start from scratch there are a couple of things in the counter mix I would change. Soviet engineer brigades were tiny — about the size of a battalion — but I suspect I may have underrated them. Their book strength ran from 500 to 600 men, and a strength of 3 rather than 2 may be more appropriate. Likewise, I may have underrated the Soviet SMG battalions by about a strength point. I would consider including a guards rocket regiment for 5th Guards Shock Corps in addition to the regiment of 3rd Shock Army, although this last addition would have to be playtested quite thoroughly, as one more rocket regiment could considerably hasten the fall of Velikiye Luki. Since there is no solid evidence about the exact extent of the German fortifications, the Barrage CRT and bunker modifications are based on the current artillery levels in the game and attempt to approximate the historical rate of destruction. Care should be exercised in OB tinkering due to the effect of this artillery/bunker interrelationship.

IV. German Units: As with the section on Soviet units, I'll attempt to answer questions which might arise.

1. German Fortifications: The two major post-war German sources on Velikiye Luki tend to discount the effects of the Velikiye Luki fortifications on the protracted resistance of the garrison. *Operations of Encircled Units* describes them as a ring of "hasty field fortifications around the town" and Carrell goes so far as to say that the defenders held out only through "sheer bravery". Neither of these characterizations of the fortifications as being sketchy perimeter works explains the contemporary German records relating to them or the final message of the commander of the eastern half of the pocket: "With last strength and ammunition still holding two bunkers in center of city". To suggest that the Germans had failed to extensively fortify the city is to pass beyond courage to foolhardiness. The Red Army had made repeated attempts to take the city during the summer of 1942, and there was every indication that they would resume their attempt at their earliest convenience. The Germans had nearly an entire year to prepare the city's defenses, and period records indicate that they put the time to good use, constructing an intensive and in-depth system of hardened bunker complexes incorporating many German-recovered, emplaced T-34s.

2. German Infantry: The German divisional infantry battalions were all up to strength due to the uniquely German practice in the face of losses of disbanding one of the battalions of a regiment and distributing the troops between the other two. (Although TO&E did not officially reduce infantry regiments to two battalions on a permanent basis until much later, the practice was used as a field expedient as early as 1941.) The only divisional regiments in the game which had not undertaken this measure were those of the 8th Panzer Division (having two battalion regiments to start with) and those of the 20th Motorized Division (which were up to strength).

The heavy infantry battalions are, as indicated on the counter, the divisional *Schnell* battalions, a term which defies meaningful translation. The *Schnell* battalion combined the functions of a divisional antitank/heavy weapons battalion, a recon unit, a reliable assault spearhead, and a divisional motorized reserve. A heavy infantry symbol seemed the closest compromise.

3. The SS: As with regular infantry, the two SS infantry regiments present had each disbanded an infantry battalion to bring the others up to strength. The SS heavy infantry battalion is not a *Schnell* battalion, but rather a composite assault force consisting of an armored car company, an engineer detachment, and one company from each of the two regiments of the brigade (troops left over from the disbanded battalions). The assault gun company of the brigade is not actually an SS unit but is the 459th Army Assault Gun Company, attached to the brigade. It was printed in SS colors for two reasons. First, the company remained attached to the brigade and was later absorbed into the SS. Second, there was no more room on the army color block.

The 43rd Estonian Police Battalion, while in separate Estonian colors, is technically under the jurisdiction of the SS. The correct designation of the unit is "*Estnische Schutzmannschaft Bataillon 43*". Numerous Estonians had joined the Germans following the invasion of the Soviet Union (and many fought for the Soviets as well, as a glance at the counter mix will reveal), and most of them were not fascist *per se*, but rather nationalists who saw no hope of re-establishing Estonian autonomy short of a military defeat of the USSR. The Estonian SS Battalions, as far as I have been able to determine, however, were fascists.

4. Luftwaffe Assault Guns: At this time, there was no formal 2nd LW Assault Gun Battalion. The unit in the game is an ad hoc battalion, composed of spares and recently repaired assault guns for the five assault gun companies under II LW Corps. It reported 20-30 assault guns present for possible assistance if 7th *Flieger* Division was committed.

5. Ski Antitank Companies: One of my playtesters asked me what good a horsedrawn antitank company was to a ski battalion. Each ski-jäger battalion, shortly before the Soviet offensive, had an antitank company attached to it, and this was the first time they saw action with the battalion. If it is any consolation to you, the commanders of the ski battalions apparently asked much the same question and never had it answered to their satisfaction. Throughout the battle, the antitank companies effectively served as corps troops, assigned to stiffen less-mobile infantry components of whatever formation the ski battalion was attached to.

6. Artillery: The Germans employed a

wider variety of ordnance at Velikiye Luki than did the Red Army. All weapons were organized into four-gun batteries, and thus the strength of an artillery unit (generally 3) is the number of batteries in the battalion. The specific types of ordinance, and units employing them, are:

10cm Guns: one battalion (II/70)

10.5cm Howitzers: fifteen battalions (I & II bns of the 20, 80, 183, 205, 291, and 331 rgts, 6 LW bn, and I, II, & III bns of 1 LW rgt)

15cm Howitzers: four battalions (506, 846, II/47, II/8)

21cm Howitzers: one battalion (833)

7.5cm Mountain Howitzers: two battalions (I & II/112)

8.8cm Heavy Antiaircraft: one battalion (6 LW AA)

Mixed 10cm Guns and 15cm Howitzers: six battalions (III bn of the 183, 291, 20, 331, 205, and 112)

Mixed 10.5 cm Howitzers and 15cm

Howitzers (SP): one battalion (III/80)

Mixed Heavy Howitzers: one battalion (845)

Mixed Weapons (one battery each 15cm howitzers and captured Soviet guns): one battalion (SS FKD)

15cm Nebelwerfers: seven battalions (I, II, & III/11, I & II/3, I & III/55)

V. Victory Conditions: Victory conditions are an attempt at quantifying precise criteria for the determination of victory, but, as indicated in the rules, players will enjoy the game much more if they concentrate more on the overall goals of the two sides and less on counting exact victory points. For one thing, counting step losses at the end of an exciting and closely fought scenario can definitely take the edge off. The overriding goal of the German player is to keep the Nevel-Leningrad railroad open. If the railroad is cut for any significant period of time, the Germans lose. An

additional consideration is to minimize German losses while maximizing Soviet losses. Generally, the Germans should target a 2:1 casualty ratio, although it will take a superior German player, or good die rolls, to do so. Also, casualties suffered by isolated units are more costly in an absolute sense, since stragglers and wounded become prisoners rather than eventually returning to service. Both sides should be prepared to abandon equipment if it will enable a weapons unit to escape a tight situation — men are more important than machines (unless the machines are Katyushas).

The game lasts until turn 13, although the last positions in Velikiye Luki actually fell on turn 12. It is easily possible that the city defenses can be reduced as early as turn 9 or 10, and thus the German pressure from the west is essential to divert artillery and ammunition from the siege force.

Frank A. Chadwick

GERMAN ABBREVIATIONS	
S	Schnell
RFSS	Reichsfuhrer-SS
FKD	Freikorps Danemark
AAW	Alarm Abteilung Witebsk
F	Flieger
Sec	Security
L	Lehr
SOVIET ABBREVIATIONS	
MB	Mechanized Brigade
TB	Tank Brigade
RB	Rifle Brigade
E	Estonian
S	Shock Corps
SA	Shock Army
SB	Ski Brigade
Nev	Nevel
St.	Stalin

MARKERS	
	Bridge
	Bunker
	Turn
	Weather
	Supply
	Movement
	Assault

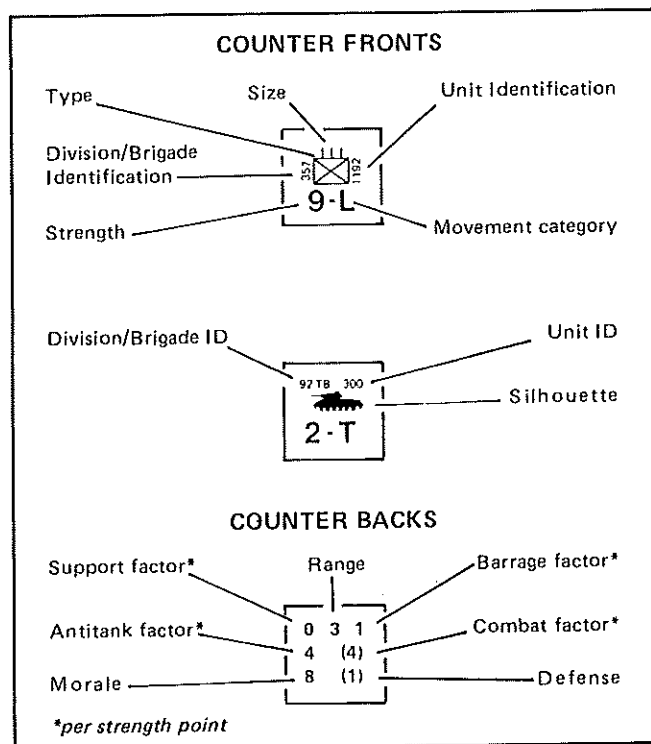
COLOR CODES			
Black on brown	Red Army Russian units	Black on grey-green	German Army
White on brown	Red Army Estonian units	Black on light blue	German Luftwaffe
Red on white	Red Army Ski units	White on grey-green	German Abwehr
Black on red	Red Army Guards units	White on black	German SS
		White on blue	Axis Estonians
		Blue on white	German ski troops

Unit Identification Chart

Symbol	Unit Type	
	Infantry	Personnel
	Mountain infantry	
	German armored infantry	
	Soviet submachinegun infantry (SMG)	
	Paratroopers	
	Machinegun	
	Heavy infantry	
	Commandoes	
	Motorcycle	
	Cavalry	
	Ski	
	Engineer	
	Construction	
	Railroad construction	
	Bridge construction	
	Observation	
	Security	
	Police	
	Antitank	Weapons
	Antiaircraft	
	Field Artillery	
	Mortar	
	Mountain artillery	
	Self-propelled field artillery	
	Rocket artillery	
	Heavy antiaircraft	
	Airborne artillery	

UNIT SIZES

I	Company
II	Battalion
III	Regiment
X	Brigade



Symbol	Vehicle type	
	PzKw II	German AFV
	PzKw 38t	
	PzKw III (short-barrelled 5cm gun)	
	PzKw III (long-barrelled 5cm gun)	
	PzKw IV	
	StuG III (short-barrelled 7.5cm gun)	
	StuG III (long-barrelled 7.5cm gun)	
	Marder II	Soviet AFV
	T-60	
	T-70	
	T-34	
	KV I	
	SU-76	
	SU-122	

Additional data are provided on page 19.

Map:

The city name Velikiye Luki has been anglicized to agree with the game title and rules references. The correct German spelling is *Velikiye Luki*.

Nowossokoljniki is misspelled on the map.

Counters:

Germans:

The single company of captured T-34s should be identified as the 2/66, not 2/60 company.

The 1/55 Rocket battalion should have a barrage factor of 20, not 30.

The counter backs have been reversed for the 3/5 Ski-Jaeger company and the 459 SS Assault Gun Company.

Soviet:

The unidentified motorcycle battalion is the 68th.

The III/793 Artillery Battalion (of the 257th Rifle Division) should have an initial strength of 2, not 3.

The 1124th Rifle Regiment is a component unit of the 334th Rifle Division, not the 34th.

Set-Up Sheet:

No space was provided for the German II/47th Artillery Battalion. The battalion was a component of Arko 103, but was attached to the 331st Infantry Division.

Some confusion is possible concerning the placement of the III/112th Artillery Battalion (of 3rd Mountain Division). This battalion was organic to the 3rd Mountain Division (and thus bears its divisional identification) but was assigned administratively to Arko 103, and thus its box is in the Arko 103 section of the Set-Up Chart. However, the battalion was deployed in the 3rd Mountain Division sector, and thus when set-up information calls for all units of the division this includes the III/112th Artillery.

Soviet Order of Appearance:

This is slightly scrambled. On turns II through VI the Soviets receive 3 supply points per turn rather than the numbers listed on the chart.

Rules:

4-B: Note that the three battalions of divisional artillery organic to each Soviet Rifle Division constitute a single regiment for stacking purposes.

4-C: The rules on limited intelligence do not interfere with the ability of units to spot enemy deployed artillery.

11-C: If a player has declared an assault on a hex and the hex is completely vacated of enemy units as a result of barrage fire, the player may nevertheless occupy the vacated hex as if a successful assault had been conducted.

13: In thaw weather AFVs crossing a partial lake hexside do not roll for tank loss through ice breakthrough if they are moving along a road or railroad.

15: Supply and isolation status of units is determined at the beginning of each impulse.

19: Bunkers need not be manned to use their fire factors. Bunkers do not have zones of control, but a Soviet unit may not enter a bunker hex except as a result of an assault. If at the conclusion of all combat there are no German units in a bunker hex, any surviving Soviet units which assaulted the hex may enter it. Bunkers may not be fired at using conventional fire, but an assault may be declared against a bunker hex even if there are no German units in the hex. In this case the Soviet units would not fire at all, but would occupy the bunker hex if they survived the bunker's defensive fire. Once occupied by a Soviet unit, a bunker is destroyed.

21-E. **Ski Units (New Section):** Both players have a number of ski units. In addition to being able to move through enemy zones of control (see Rule 3), ski units may retreat before combat. After all assaults are declared, ski units of the defending player may retreat one hex, provided that hex is not into the ZOC of an enemy ski unit. Following this retreat, any enemy ski unit which was committed to assault the defending ski unit may advance into the vacated hex and conduct its assault normally. Following the resolution of this assault, any other units which were assaulting the original hex may advance into it as well. Both the pursuit by assaulting ski units and the advance after combat of the non-ski units must not violate stacking limits.

23: The second to the last sentence in the first paragraph should read, "If this rule is used then all weapons units automatically abandon their equipment when they are forced to rout or retreat through an enemy ZOC."

Address all game questions to:

White Death Questions
Game Designers' Workshop
P.O.Box 432
Normal, IL 61761

The current errata sheets for all workshop games are available upon request without charge. All game questions and errata requests must be accompanied by a stamped, self-addressed envelope.

SOVIET ORDER OF APPEARANCE

All units listed below appear at the start of the first Soviet impulse and enter by way of the eastern entry area unless otherwise indicated by SE (Southeast) or NE (Northeast).

Turn I:

4 Supply points

Turn I (2nd Impulse):

381st Rifle Division (3 rgts, 3 bns)

Turn II:

4 Supply points
357th Rifle Division (3 rgts, 3 bns)
21st Guards Rifle Division (3 rgts, 3 bns)
46th Guards Rifle Division (3 rgts, 3 bns)
34th Tank Regiment (part of 46th Guards
Division, but not a Guards unit)(2 bns)
3 SA Engineer Brigade
3 SA Artillery Brigade

Turn III:

4 Supply points
9th Guards Rifle Division (3 rgts, 3 bns)
19th Guards Rifle Division (3 rgts, 3 bns)
31st Rifle Brigade (4 bns)
45th Ski Brigade (4 bns)
5S Guards Engineer Brigade
5S Guards Artillery Regiment

Turn IV:

5 Supply points
18th Mechanized Brigade (6 bns)
34th Mechanized Brigade (6 bns)
43rd Mechanized Brigade (6 bns)
33rd Tank Brigade (3 bns)
36th Tank Brigade (4 bns)
26th Rifle Brigade (4 bns)
2MC Artillery Regiment
2MC Engineer Brigade
68th Motorcycle Battalion
SE 360th Rifle Division (3 rgts, 3 bns)

Turn V:

5 Supply points

Turn VI:

5 Supply points
7th Estonian Rifle Division (3 rgts, 3 bns)
8th Estonian Engineer Brigade

Turn VII:

4 Supply points
249th Estonian Rifle Division (3 rgts, 3 bns)
8E Estonian Artillery Regiment
92nd Tank Brigade (3 bns)

Turn VIII:

4 Supply points
45th Tank Brigade (3 bns)
236th Tank Brigade (2 bns)
100th Rifle Brigade (4 bns)
NE 1077th Guards Rifle Regiment (of 8th Guards
Division)

Turn IX:

4 Supply points
2 Replacement points
129th Tank Brigade (3 bns)
389th Tank Destroyer Regiment (3 bns)

Turn X:

4 Supply points
2 Replacement points
Refit one tank brigade
32nd Rifle Division (3 rgts, 3 bns)

Turn XI:

4 Supply points
2 Replacement points
23rd Rifle Brigade (4 bns)

Turn XII:

4 Supply points
2 Replacement points
150th 'Stalin' Rifle Division (3 rgts, 3 bns)

Turn XIII:

4 Supply points
2 Replacement points

OPTIONAL REINFORCEMENTS

47th 'Nevel' Rifle Division (3 rgts, 3 bns)
NE 54th Rifle Brigade (4 bns)
SE 334th Rifle Division (3 rgts, 3 bns)
SE 24th Cavalry Division (3 rgts, 1 bn)

Terrain Effects

Terrain	Movement							Combat		
	<i>Ski</i>	<i>Leg</i>	<i>Draft</i>	<i>Wheel</i>	<i>Track</i>	<i>M/C</i>	<i>Horse</i>	<i>Pers.</i>	<i>Hv Wpns</i>	<i>Lt Wpns</i>
Clear/Lake	1/4	1/2	1	1/2	1/4	1/2	1/3	6	2	5
Road/Railroad	1/4	1/4	1/4	1/10	1/8	1/10	1/6	*	*	*
Creek	1/4	1/2	1-3	1-2	1/2-1	1/2-1	1/3	5	2	3
River	1/2	1/2	2-4	2-4	1-2	1-2	1/3	4	2	2
Forest	1/4	1/2	P	P	P	1	1/3	8	3	5
Town	1/4	1/4	1/4	1/5	1/4	1/5	1/6	10	7	7
Forest/Creek	1/2	1/2	P	P	P	1-1	1/3	7	—	—
Lake Hexside:										
Frozen	NE	NE	P	P	+1	+1/2	+1/3	*	*	*
Thaw	NE	+1	P	P	P	+1	+1	*	*	*
Bunker	*	*	*	*	*	*	*	15	15	15

* As other terrain in hex.

Slopes: Slopes have no effect on movement. All units adjacent to a slope hexside and firing down it have their combat and antitank factors doubled. Slopes affect visibility as noted in the artillery rule.

High Ground: High ground does not affect movement or combat. High ground affects visibility as noted in the artillery rule.

Conventional Combat Results

	1:3	1:2	1:1	1.5:1	2:1	3:1	4:1	5:1	6:1	7+:1
1	MC	MC	MC1	MC1	MC1	MC2	MC2	MC3	MC3	MC4
2		MC	MC	MC1	MC1	MC1	MC2	MC2	MC3	MC3
3			MC	MC	MC	MC1	MC1	MC2	MC2	MC3
4					MC	MC	MC1	MC1	MC2	MC2
5						MC	MC	MC1	MC1	MC2
6							MC	MC	MC1	MC1

Antitank Results

	1:3	1:1	2:1	3:1	5:1	6:1
1	X	X	X	X	2X	2X
2		X	X	X	X	2X
3			X	X	X	X
4				X	X	X
5					X	X
6						X

Barrage Table Modifiers

Personnel	+2
AFV	+3
Bunker	+7
Town	+3
Forest	+1
Creek	-1
River	-2
Unobserved	+1 per two hexes of range.

Barrage Fire Table

	4-9	10-19	20-29	30-39	40-49	50-59	60+
1	2	2	4	4	5	5	6
2	1	2	3	4	4	5	5
3	—	1	2	3	4	4	5
4	—	1	2	2	3	4	4
5	—	—	1	2	3	3	4
6	—	—	1	1	2	3	3
7	—	—	—	1	2	2	3
8	—	—	—	1	1	2	2
9	—	—	—	—	1	1	2
10	—	—	—	—	1	1	2
11	—	—	—	—	—	1	1
12	—	—	—	—	—	1	1
13	—	—	—	—	—	—	1
14	—	—	—	—	—	—	1
15+	—	—	—	—	—	—	—

Notes: All barrage fire modifiers are cumulative, with the exception that AFV units do not enjoy the benefits of bunkers and bunker counters are not affected at all by any other terrain in the hex.

GERMAN ORDER OF APPEARANCE

All units listed below appear at the start of the first German impulse and enter by way of the southwest entry area unless marked W (West) or S (South).

Turn I:

2 Supply points

Turn I (2nd Impulse):

1st Ski-Jaeger Battalion (4 companies)

Turn II:

2 Supply points
I/1st Lehr Rocket Battalion
564th Security Battalion
591st Security Battalion

Turn III:

2 Supply points
2 Replacement points
90th Motorized Infantry Regiment (20th Division)
(3 battalions)
505th Infantry Regiment (291st Division)(2 bns)
8/II/29 Tank Company
II/3rd Rocket Battalion
II/1st Lehr Rocket Battalion
2nd Antitank Battalion (3 companies)
391st Security Battalion

Turn III (2nd Impulse):

NW 662nd Engineer Battalion
NW 505th Engineer Battalion
NW 8th Panzer Division (9 bns, 7 comp)

Turn IV:

2 Supply points
2 Replacement points
AAW Ski Battalion (3 companies)
Remainder of 20th Motorized Division (8 bns, 3 co)
Remainder of 291st Infantry Division (9 bns)

Turn V:

3 Supply points
2 Replacement points
6th Luftwaffe Field Division (6 bns, 3 comp)
W I/107th Security Battalion
W 865th Security Battalion
S 1st SS Motorized Brigade (5 bns, 3 comp)
S FKD SS Armored Infantry Battalion
S FKD SS Artillery Battalion

Turn VI:

3 Supply points
2 Replacement points
W II/3 Sec. Motorcycle Battalion

Turn VII:

3 Supply points
3 Replacement points
I/15 Panzer Battalion (4 comp)
993rd Security Battalion

Turn VIII:

3 Supply points
3 Replacement points

Turn IX:

3 Supply points
3 Replacement points
6th Ski-Jaeger Battalion (4 comp)
18th Panzer Battalion (4 comp)
2/60th Panzer Company
883rd Artillery Battalion
845th Artillery Battalion
846th Artillery Battalion
335th Infantry Regiment (205th Division)(2 bns)
W 559th Infantry Regiment (331st Division) (2 bns)

Turn X:

4 Supply points
3 Replacement points
358th Infantry Regiment (205th Division)(2 bns)
W 331st Engineer Battalion (331st Division)

Turn XI:

4 Supply points
3 Replacement points
8th Ski-Jaeger Battalion (4 comp)
II/47th Artillery Battalion
Remainder of 205th Infantry Division (7 bns)
9, 10, 11 companies of 803rd Brandenburg
(Abwehr) Regiment
W Remainder of 331st Infantry Division (8 bns)

Turn XII:

4 Supply points
3 Replacement points
S Roll for 7th Flieger Division (13 bns, 2 comp)

Turn XII:

4 Supply points
3 Replacement points

Terrain Effects

Terrain	Movement							Combat		
	Ski	Leg	Draft	Wheel	Track	M/C	Horse	Pers.	Hv Wpns	Lt Wpns
Clear/Lake	1/4	1/2	1	1/2	1/4	1/2	1/3	6	2	5
Road/Railroad	1/4	1/4	1/4	1/10	1/8	1/10	1/6	*	*	*
Creek	1/4	1/2	1-3	1-2	1/2-1	1/2-1	1/3	5	2	3
River	1/2	1/2	2-4	2-4	1-2	1-2	1/3	4	2	2
Forest	1/4	1/2	P	P	P	1	1/3	8	3	5
Town	1/4	1/4	1/4	1/5	1/4	1/5	1/6	10	7	7
Forest/Creek	1/2	1/2	P	P	P	1-1	1/3	7	—	—
Lake Hexside:										
Frozen	NE	NE	P	P	+1	+1/2	+1/3	*	*	*
Thaw	NE	+1	P	P	P	+1	+1	*	*	*
Bunker	*	*	*	*	*	*	*	15	15	15

*As other terrain in hex.

Slopes: Slopes have no effect on movement. All units adjacent to a slope hexside and firing down it have their combat and antitank factors doubled. Slopes affect visibility as noted in the artillery rule.

High Ground: High ground does not affect movement or combat. High ground affects visibility as noted in the artillery rule.

Conventional Combat Results

	1:3	1:2	1:1	1.5:1	2:1	3:1	4:1	5:1	6:1	7+:1
1	MC	MC	MC1	MC1	MC1	MC2	MC2	MC3	MC3	MC4
2		MC	MC	MC1	MC1	MC1	MC2	MC2	MC3	MC3
3			MC	MC	MC	MC1	MC1	MC2	MC2	MC3
4					MC	MC	MC1	MC1	MC2	MC2
5						MC	MC	MC1	MC1	MC2
6							MC	MC	MC1	MC1

Antitank Results

	1:3	1:1	2:1	3:1	5:1	6:1
1	X	X	X	X	2X	2X
2		X	X	X	X	2X
3			X	X	X	X
4				X	X	X
5					X	X
6						X

Barrage Table Modifiers

Personnel	+2
AFV	+3
Bunker	+7
Town	+3
Forest	+1
Creek	-1
River	-2
Unobserved	+1 per two hexes of range.

Barrage Fire Table

	4-9	10-19	20-29	30-39	40-49	50-59	60+
1	2	2	4	4	5	5	6
2	1	2	3	4	4	5	5
3	—	1	2	3	4	4	5
4	—	1	2	2	3	4	4
5	—	—	1	2	3	3	4
6	—	—	1	1	2	3	3
7	—	—	—	1	2	2	3
8	—	—	—	1	1	2	2
9	—	—	—	—	1	1	2
10	—	—	—	—	1	1	2
11	—	—	—	—	—	1	1
12	—	—	—	—	—	1	1
13	—	—	—	—	—	—	1
14	—	—	—	—	—	—	1
15+	—	—	—	—	—	—	—

Notes: All barrage fire modifiers are cumulative, with the exception that AFV units do not enjoy the benefits of bunkers and bunker counters are not affected at all by any other terrain in the hex.

Turn Record Chart

1	2	3	4	5	6	7	8	9	10	11	12	13
Nov. 16-20	Nov. 21-25	Nov. 26-30	Dec. 1-5	Dec. 6-10	Dec. 11-15	Dec. 16-20	Dec. 21-25	Dec. 26-30	Dec. 1- Jan. 4	Jan. 5-9	Jan. 10-14	Jan. 15-19

WEATHER CHART

Die	Turn												
	1	2	3	4	5	6	7	8	9	10	11	12	13
1	T	T	T	F	F	F	F	F	F	F	F	F	F
2	T	T	F	F	F	F	F	F	F	F	F	F	F
3	F	F	F	F	F	F	F	F	F	F	F	F	F
4	F	F	F	F	F	F	F	F	F	F	F	F	F
5	F	F	F	F	F	F	F	F	S	S	S	S	S
6	F	F	S	S	S	S	S	S	S	S	S	S	S

F = Frost/Clear; T = Thaw; S = Snow

Frost/ Clear	Snow	Thaw
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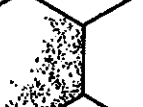
Movement Point Scale

1	2	3	4	5	6	7	8	9	10
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Ammunition Point Scale

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----

Terrain

<i>Symbol</i>	<i>Terrain type</i>	<i>Symbol</i>	<i>Terrain type</i>
	Clear		Railroad (red)
	River (blue)		Lake (blue)
	Creek (blue)		Forest (green)
	Town (black)		High Ground (brown)
	Road (black)		Slope Hexside (brown)