

## OPERATIONAL ANALYSIS

# KHARKOV

## Tug-O-War in the Ukraine

by Karl E. Wiegiers

*Kharkov* uses one of my favorite game-systems, the World War Two operational level design developed for *Panzergruppe Guderian* (one of my all-time favorite games!) The game, however, is not the sequence of rapier thrusts found in any plan for *PGG* — rather, it is more a contest of hammer blows and careful initial deployments. There is a growing family of *PGG* games whose membership will likely grow to provide a second generation replacement group for the games of the *Kursk* system. —RAS

Soviet player-turn occurs first in each game-turn.

### Victory Conditions

Victory in *Kharkov* is dependent upon both the securing of geographical objectives and the destruction of enemy forces. The three major cities on the map are worth Victory Points to the player who controls them at the end of the game: 25 victory points for Kharkov, 10 for Dnepropetrovsk, and 10 for Poltava. The Axis player controls all three cities at the beginning of the game. Even if Kharkov is not completely controlled by a single player at the end of the game, the Soviet player can gain Victory Points by capturing single hexes of Kharkov, or by cutting off any remaining German units in the city. An important rule gives the Soviet player 2 Victory Points for each Game-Turn that the Axis player fails to maintain a continuous front of friendly units and/or their zones of control along the entire length of the battle front. Finally, in contrast to *PGG*, both players collect victory points for eliminating enemy units. The higher quality of the Russian units in this game is compensated by a greater penalty for their loss. And the Germans *do* suffer heavy casualties in this game.

### Units

*Soviet.* As with *PGG* and *Drive on Stalingrad*, nearly all of the Soviet unit counters in *Kharkov* are “untried,” meaning that each unit’s attack and defense strengths are concealed from both players until that unit is committed to combat. The Soviet order of battle includes rifle divisions, cavalry divisions, and tank brigades; Table 1 provides additional information about these untried units. Most of these units have only one “step” or strength level that can be lost in an adverse combat result. However, those Soviet units with a defense strength of 6 or greater (i.e., three rifle divisions and two tank brigades) have two steps each, and replacement counters are provided. More importantly, there are no zero-strength units to evaporate at critical moments in key battles.

**Table 1: Soviet Untried Units**

	Rifle Div	Cav Div	Tank Bde
Nr. of Units	39	18	35
Weakest Unit	1-1-7	1-1-8	1-1-11
Strongest Unit	7-11-7	4-5-8	6-6-11
Average Unit	3-3-7	2-2-8	3-2-11

Besides these untried units, the Russian player has three Guards rifle divisions, whose

impressive strengths are always known to both players. These also have two steps, with the reduced step on the back of the full-strength counter.

9th Army  
Kharitonov  
(4)11

Similar to *PGG*, Soviet supply in *Kharkov* is traced through six Army headquarters units, which have command radii of 3 to 5 hexes. Unlike the leader counters in *PGG*, HQ units exert no zone of control, do not contribute an attack bonus, and may never be disrupted (by overrun) or eliminated.

*Axis.* Axis units are largely the same as those present in *PGG*. There are 24 German infantry divisions with a combat strength of 9 and a movement allowance of 8. These divisions have four steps each, being reduced to 4-8, 2-8, and 1-8 status before being eliminated. There are also several three-step light infantry divisions (initially 7-8's), a 7-8 mountain division, and a 2-8 security division with only one step. These full-strength divisions and their step-reduced counterparts may be broken down into regiments of strength one or two. For example, a full strength 9-8 division can be exchanged for three 2-8 regiments of one step each. Similarly, several regiments may be recombined into a division of appropriate size when they end the Axis movement phase in the same hex. As only 15 regiment counters are provided, this places an absolute limit on the number of units which may be broken into regiments at any one time, but they provide the Axis player a much-needed flexibility in defense.

The armored force of the German army in *Kharkov* consists of five Panzer divisions and one Panzergrenadier division. Each division has three regiments, for a total of six steps, and each regiment has a movement allowance of 12. Consistent with *PGG* and its successors, whenever all three regiments of a single division are stacked together, the division is doubled on both attack and defense. Thus a Panzer division with “divisional integrity” has a strength of 16. An innovation in this game is “mobile defense tactics” on the part of the Panzer units. A regiment within two hexes of another regiment of the same Panzer division is doubled on defense only. As with the regimental breakdown of infantry divisions, this rule enhances the German defensive capabilities enormously.

*Kharkov*, the issue game in *S&T* Nr. 68, is the latest in a series of operational level games based on the system introduced in SPI's *Panzergruppe Guderian* in 1976. *Kharkov* simulates the Soviet offensive in May of 1942, which preceded by less than a week a planned German attack called “Operation Fredericus.” The scale of this game is somewhat smaller than that of *PGG*, with one-day Game Turns and 6.9 kilometers per hex, as opposed to two-day Turns and 10.5 km/hex. While the basic game system is the same as that of its predecessor, *Kharkov* includes a number of refinements and special rules. In this article, the strategic situation and the units used in the game are examined as well as the strategy and tactics of play for both the Axis and the Soviet player.

### The Situation

May 12, 1942, found the Soviet and German armies facing each other along an irregular line extending roughly north-south to the east of Kharkov, but with a western bulge to the south of that city—the Izyum pocket. The Red Army was poised for an attack to liberate Kharkov in the north, while the Wehrmacht was making preparations for a major offensive in the south. In consequence, the *Kharkov* game map has a North/South Sector Boundary Line between the 2400 and 2500 hexrows, which has a major influence on the course of the game.

The first half of the 10-Turn game is dominated by an all-out attack by the Soviet armies in the north, as they attempt to recapture Kharkov and press as far west as possible. On Game-Turn Five the Axis offensive, “Operation Fredericus,” is unleashed, and the Russians must go on the defensive along their southern flank while continuing the attack around Kharkov. The game map consists largely of clear terrain in the path of the German offensive in the south, and heavy forests in the path of the Russian attack around Kharkov. Only one of the two major rivers, the Donets, influences the battle. The

In addition to the German units, the Axis player also has three weak Rumanian infantry divisions, who must trace supply through a Rumanian corps headquarters unit.

**Stacking.** Both sides can stack up to three combat units in a single hex. As usual, stacking limitations apply only at the end of the movement phase. However, units that cannot be retreated during the combat phase without violating the stacking limit must take step losses.

### Initial Deployment

With a few exceptions, all units of both armies that initially are deployed on the map must be positioned either adjacent to or within one hex of the 12 May 1942 Front Line. Also, each hex adjacent to each player's side of the Front Line must be occupied by or in the ZOC of the player's units. For the purpose of deployment, various points along the Front Line are denoted by numbers (Axis side) and letters (Soviet side). In the following discussion the region be-

tween, for example, point 1 and point 2 will be referred to as "Sector 1-2."

**Axis Deployment.** The Axis player sets up first. An important rule that he needs to keep in mind is the "Soviet Breakout Mobility Rule." On Game-Turns One and Two, any Soviet unit which begins the Movement Phase in an enemy ZOC may move directly into another non-enemy-occupied hex, even if it too is an enemy ZOC. To avoid the handicap of such infiltration tactics on the first Turn, German units in the northern part of the map should *not* be positioned adjacent to the Front Line whenever possible.

With this one exception, Soviet units may never leave an enemy ZOC during the Movement Phase. The Axis player may attempt to exploit this limitation by deploying his powerful forces south of the North/South Boundary Line adjacent to the Front Line, hoping to pin some Soviet units that will not then be free to help form a secure defensive line before the main Axis attack.

The Axis player faces some tough decisions in deployment, especially in sectors 1-2

(Kharkov), 2-3 (Balakleya pocket), and 3-4. In sector 1-2, two of the three infantry divisions should be broken down into regiments, placing two regiments each in hexes 0215, 0616, and 0814. Place the remaining 9-8 infantry division in hex 0416. Even if the two 2-8's in hex 0215 are eliminated, the lack of a Soviet Mechanized Movement Phase insures that the Axis line cannot be outflanked before German reinforcements arrive.

Historically the use of "strongpoints" provided a successful German defense to the east of Kharkov. Only unstacked infantry regiments can form strongpoints. They exert no zone of control, but only a "Defender Eliminated" combat result has any effect on them. However, this tactic is not likely to be successful in the game. Without ZOC's, a continuous line of strongpoints is necessary to prevent Soviet breakthroughs. Only nine infantry regiments are available in sector 1-2, and the required deployment near the Front Line means that no reserves can back up the German front line. Most important, as the Soviet Player-Turn comes first, some of



these critical 2-8 regiments will be destroyed even before they have a chance to form strongholds.

The units in sector 2-3 are essentially goners, but this may be a better place for infantry regiments to form strongpoints if they cannot withdraw to safety. The Russians must reduce the strongpoints to keep the Germans from playing havoc with supply lines later in the game. The 3rd and 23rd Panzer divisions *must* be positioned so that they can be free on Game-Turn One to move into the areas most threatened by the Russian advance. A satisfactory deployment in this sector has both infantry divisions broken into regiments, with one 2-8 regiment placed in each of hexes 1012, 1212, 1411, 1612, 1614, and 1516. Place the Panzer divisions in hexes 1014 and 1415 and hope for the best.

Sector 3-4 can expect some attacks early in the game, also. Break down one 9-8 into regiments. Place two regiments in hex 2222, and stack the third with the 454 Sich Division (also a 2-8) in hex 1922. Place 9-8's in hexes 1518 and 1721, and the 108 Light Infantry in hex 1719.

Axis deployment between points 4 and 7 is less critical, as this front is almost certain to be inactive until the fifth Game-Turn. The Axis player may wish to consider trying to pin Russian units as described above, for rapid destruction when "Operation Fredericus" takes off. An example is hex 2902; a German unit placed here will trap any Soviet units positioned in hexes 2901, 2801, and 2802, with the added benefit of being behind a major river in case the Soviet player wishes to attack hex 2902.

**Soviet Deployment.** The first decision the Soviet player must make is where to assign the three Guards rifle divisions. An effective solution is to place the 14 Gds (11-7-7) in the 28th Army, the 13 Gds (10-11-7) in the 28th Army Reserve, and the 1 Gds (8-9-7) in the 9th Army Reserve. These fine units can remove much of the apprehension felt when committing untried units to important battles.

The positioning of headquarters units is a major concern, as only the 6th and 28th Army HQ's begin the game in an "active" status; the others are all "inactive" initially, which means that they have a reduced movement allowance and cannot function as headquarters units until activated. 57th Army HQ is activated at the beginning of Game-Turn Two, and the 9th, 37th, and 38th Army HQ's on Game-Turn Five. Cases 10.35 and 10.36 apparently deal with early activation of HQ units, but these were omitted from the rules booklet. Since only the 6th and 28th Army HQ units can supply units at the start of the game, they should be carefully positioned. One possibility is hex 0413 for 28th Army HQ and hex 1811 for 6th Army HQ. Note one other error: the rules say that the 37th Army HQ is deployed in hex 2602, but the counter itself says 2606, which makes more sense.

In sector A-B the Soviet player should attempt to deploy adjacent to German units to take advantage of the breakout mobility

rule. Another important rule deals with armor superiority: the presence of an armored unit in any combat gives the player with that unit a one-column odds adjustment in his favor (ignored if both sides have armor present). Thus, three stacks of units should be placed in sector A-B (1) 14 Guards plus an untried rifle division plus a tank brigade; (2) two rifle plus one tank; and (3) rifle divisions.

Sector B-C has so few Russian units that positioning them is almost forced. Sector C-D requires a thoughtful deployment to avoid German ZOC's and to mount an attack on the Balakleya pocket as described later in the article.

Deployment between points D and G should be made with the eventual goal of falling back to a secure defensive line on Game-Turn Five, when the German onslaught is launched. Here it is essential to avoid Axis ZOC's. A unit beginning the game in an enemy ZOC is probably wasted and certainly dead. Those units with the largest movement allowances—tanks and cavalry—should be positioned farthest to the south and west. Otherwise, deployment in this sector is not critical, as a fair amount of unit shuffling can be performed during the first four Game-Turns, and reinforcements can be dispatched to the offensive up north. Note, however, that northward movement across the N/S Sector Boundary Line is prohibited except by rail, so one stack consisting of two rifle divisions and one tank brigade should be placed in hex 2701 in anticipation of being moved northward by train.

### Soviet Strategy and Tactics

The Soviet player has two major concerns: to make progress as rapidly as possible to Kharkov and beyond; and to construct a secure defensive line in the southern part of the map in anticipation of the German attack beginning on Game-Turn Five.

**In the North.** For the assault in the north, the historical plan is probably the most effective. This consists of a two-pronged attack by the 28th Army east of Kharkov and by the 6th Army northwestward out of the Izyum pocket. The Soviet player must make as many attacks as he can early in the game to take advantage of the "Soviet Breakthrough Morale Bonus" rule, which gives a favorable 0-4 odds-column shift on each Soviet attack made on the first four Turns of the game. But it is at this stage of the game that the few active Soviet headquarters units available restricts the number and locations of attacks that can be made. The precarious supply situation also means that breaks in the German line cannot be exploited properly. This situation suggests that the major cities of Poltava and Dnieperopetrovsk are on the map largely for play balance purposes, since the Axis player is likely to control these cities throughout the entire game.

Since the reduction of the Balakleya bulge will shorten the Russian line and thus alleviate the HQ shortage, it is a high priority objective. On Game-Turn One the two rifle divisions and one tank brigade in hex 2701

should be moved by rail to the Balakleya vicinity. The armor reinforcement appearing throughout the game on the eastern edge of the map can be placed in hex 1601 to go to the northern battle front, or in hex 1801 to reinforce sector B-C.

German units, unlike Soviet and Rumanian, can "disengage" from an enemy ZOC at a cost of three additional movement points. However, the Russian unit(s) exerting the ZOC has the option to follow the disengaging unit, thus pinning it again, although further disengagements and pursuits can take place. No German units can execute a tactical disengagement on Game-Turn One, though, so on that Turn all available Soviet units in the main battle areas should be moved adjacent to German units. This tactic will leave as stragglers those pinned units, to be dealt with piecemeal later on. Should those German units attempt to disengage on a later Turn, then not only is their movement capability drastically reduced, but the adjacent Soviet units can gain ground at no cost.

The Soviet player can commit up to three units from his Army reserves on Game-Turn Two, and again on Turn Three. On Turn Two he should release the 13 Guards and the rifle and tank units from the 28th Army reserve. On Turn Three a tank brigade and two rifle divisions from the 6th Army reserve should be released. The Army reserve counters can also serve another function. Since the entire reserve stack is released if an Axis unit is moved to within three hexes of the reserve counter, these counters can be placed four hexes from the nearest enemy units to discourage local German counterattacks in vulnerable areas.

The Russians must make rapid headway around Kharkov on the first four Game-Turns. Tank brigades should be included in every attack to gain the armor superiority bonus. It is also advisable to include in each attack at least one weak, expendable unit (cavalry is good for this purpose), because split combat results must usually be taken as step losses instead of retreats to maintain the Soviet offensive. Soviet overruns will be rare. Since overruns take place at half-strength, even a stack consisting of the 13 and 14 Guards plus the strongest tank brigade has an overrun strength of only 13 points, plus the armor superiority bonus if overrunning infantry. The Russians have one air power point available on each turn, which can provide a favorable one odds-column shift either in an attack or on defense. This air point will probably be needed in attacks around Kharkov on most Turns.

**In the South.** One principle dominates the Soviet player's activities south of the North/South Sector Boundary Line: *do not provoke the sleeping Axis giant!* No Axis unit south of this line may move or attack until "activated." Activation can occur by various Soviet activities, and all these units become activated on Game-Turn Five. The Soviet player must rigorously avoid activating the Axis army before Turn Five, which results in the southern front being

essentially static for the first half of the game. The Red Army should take advantage of these five Turns to construct a reliable defense line, because when "Operation Fredericus" is launched no fewer than 206 fresh Axis strength points become available.

Preparations for a defense line begin with the initial Soviet deployment, as described above. Two possibilities exist for the position of the main line of resistance (MLR). One consideration is that the Axis player must control hex 3117 and the nearby road hexes by the beginning of Game-Turn Six if units on the southeast portion of the map are to be in supply (they are automatically supplied on the Turn of activation). The Russians can thus deploy to hold that area as long as possible and weaken the German thrust. However, in the clear terrain the cost of such a delaying action is likely to be prohibitively high.

A more secure strategy is to establish the MLR along the 2400 hexrow. There is at least a little good defensive terrain behind the Donets River that can be held with relatively few units. (Interestingly, the position of the Donets River between the 2400 and 2500 hexrows disagrees with the maps in the S&T Kharkov article, which places the river to the south of Barvenkova.) Another advantage of establishing the MLR so far north is that the shortened Soviet line will be more than eight hexes from the German units deployed in Sector 5-7, and the main Axis attack will be delayed until the infantry can move up on Turn Six. The defense line should consist of alternate hex stacks made up of one rifle division, one tank brigade, and one cavalry division. Additional rifle and cavalry divisions should be poised immediately behind the main line in order to replace step losses, keep a supply line open to units in the front lines, and impede breakthroughs on the Axis mechanized movement phase. The powerful 1 Guards rifle division can help channel the German attack.

The Soviet player should also be conscious of weak stragglers in front of the MLR. Unlike the Soviet units, Axis units can advance after combat through enemy Zones of Control. A weak Russian unit in the wrong position might allow the Germans to infiltrate the MLR by eliminating this unit and advancing after combat.

Be sure to position the 57th, 9th, and 37th Army HQ units so that when they become active at the beginning of Game-Turn Five all possible Soviet units on the southern part of the map will be in supply.

### Axis Strategy and Tactics

The Axis player's activities are just the inverse of his opponent's. During the first half of the game, the weak German forces in the north desperately struggle to defend Kharkov, but the Fifth Turn sees the opening of an enormous Axis counterattack.

*In the North.* The Germans have the advantage of good defensive terrain all around Kharkov; defenders in forests are doubled, and attacks across a major river are halved. However, so few reinforcements arrive (just

one 9-8 infantry division each on Turns 2, 4, 6, and 8) that adverse combat results must usually be taken as retreats rather than step losses. This is especially true when infantry regiments are being attacked, but many of them will be eliminated on the first two Turns of the game anyway.

Units beginning the game in the Balakleya pocket are in serious, probably irreversible trouble. Be sure to keep the 3rd and 23rd Panzer divisions out of Soviet ZOC's long enough for them to be available to plug holes in the line northeast of Kharkov. The Panzer divisions should be split into regiments only if each regiment can be placed in good defensive terrain. Remember that losing just one regiment destroys the capability for divisional integrity for the remaining regiments.

The Axis player should get one or more 9-8 infantry divisions into Kharkov as soon as possible. The city doubles the defense strength, and the one Strength Point garrison in each of the three Kharkov city hexes makes the one division essentially a 19 on defense. Reducing this unit will tie down many Russian units for several turns, and two or three such units will effectively cancel the Soviet conquest of Kharkov.



The available Axis air points, up to four per Turn, will be used defensively in the most critical battles, even after "Operation Fredericus" begins. It may be advisable at times to use one or two air points to air-supply surrounding units which are engaging large Soviet forces.

*In the South.* Once the units south of the N/S Sector Boundary Line are activated, a series of attacks should be made at the westernmost corner of the Soviet MLR, crushing it and breaking through as rapidly as possible. As in PGG, the principle of "divide and conquer" can describe the fate of the Red Army. The standard German tactics of overruns and exploitation of breakthrough during the mechanized movement phase will be helpful, but their effectiveness is limited somewhat by the high Soviet unit density. A combined attack from three full-strength infantry divisions and one Panzer division involves a total of 43 strength points, whereas the typical mixed rifle-cavalry-tank Russian stack has an average defense strength of only 7. However, the fortuitous placement of one or two of the truly excellent Soviet untried units, such as the 7-11-7 rifle division, could force an abrupt change in Axis strategy.

The German IV Corps, consisting of one Panzer plus four infantry divisions, appears on Game-Turn Five at the south edge of the map. If the situation around Kharkov is under control then these units can lend their weight to "Operation Fredericus." It is more likely that they will be needed up north. If so, then three infantry divisions should be placed in hex 3929 and moved by rail as far north as possible (up to 40 hexes), while the

Panzer division can move even farther in two movement phases along the road beginning in hex 3922. The fourth infantry division can join Fredericus in this case.

### Conclusion

The Soviet player in *Kharkov* has several serious obstacles to overcome. Nearly all of his units are of unknown and variable quality; most are flimsy and tend to evaporate in combat. He has little airpower to use in improving attack odds. The lack of a Mechanized Movement Phase hinders the exploitation of gaps forced in the Axis line. The need to trace supply through just a few headquarters units makes it unlikely that Soviet units will be able to break past the Axis left flank and move beyond Kharkov. The Soviet player has very limited overrun capability.

To offset these limitations the Russian player has substantial combat bonuses on the first few Game-Turns that enable him to mow down 9-8 infantry divisions, at least briefly. The Red Army has plenty of armor to provide bonuses in combats with the largely infantry-based Axis forces. And the large number of Soviet units allows the Soviet player to take step losses instead of retreats, as he must in order to continue the battle for Kharkov. The very powerful Guards divisions are highly reliable units (especially when used in concert), and there are none of the unpleasant surprises one gets in PGG when revealing a 0-0-6 rifle division.

In contrast, the excellent but less numerous Axis forces must simply fight a delaying action (albeit a hard-pressed one) for a few Turns before taking the offensive. The three hexes comprising the city of Kharkov are the focal point of the entire game, and it will be a skillful Soviet player indeed who can avoid a German victory (the historical outcome) in this exciting and fast-moving game. ■■

## CONVENTIONS Up and Coming

The following is a list of conventions scheduled to be held in the upcoming months, including place, name of convention, and whom to contact for further information.

### December 2-4

WINTERCON VII. *Contact:* Al Slisinger, 19941 Joan, Detroit, Michigan 48205.

### January 5-7

SON OF ORCCON, California State University at Fullerton. Guest appearance by Jim Dunnigan. *Contact:* Alan Emrich, 2922 Angler Lane, Los Alamitos, California 90720.

### January 19-21

WINTER WAR VI, Foreign Language Building, University of Illinois, Urbana, Illinois. *Contact:* Alan B. Conrad, 2215 S. First #103, Champaign, Illinois 61820.

### February 17-19

DUNDRACON IV, Villa Hotel, 4000 S. El Camino Real, San Mateo, California 94403 (contact hotel for reservations). *Contact:* DunDraCon IV, 386 Alcatraz, Oakland, California 94618. ■■