



OPERATIONAL ANALYSIS

Battle for Stalingrad

The Struggle for the City

by Jerrold Thomas

I remember when we made the decision to publish John Hill's *Battle for Stalingrad*. Much of the office chat centered around the salability of John's name (as an author/designer). To test this, we featured his name prominently on the package. As a control, another game (*Kursk*, by Eric Goldberg) was handled in the same way (to see if "unknown" Eric had as much pulling power as "star" John). Both games sold well. Actually, the unsung hero of *Stalingrad* (the game) is John Butterfield, who did a masterful job of development...and design, to bring the game to fruition. —Redmond

SPI's latest "Stalingrad" game was bound to provoke comment when it was released. It is by John Hill, the most respected independent designer around; its historical research was augmented by David Parham, the acknowledged researcher on the subject; and its release was nearly simultaneous with

that of *Streets of Stalingrad*, the long awaited "Kesselslacht" project's result.

This article does not compare the two games, as they are hopelessly different. Suffice to say that the similarities are restricted to the area involved, the simplicity and basic bloodiness of the CRT's, and the huge losses mandated to fall primarily on the "landers" of both armies.

I do want to give a few points of play and basic strategic consideration, however. I have found that the system is different enough that games can easily be grossly affected by one player's misunderstanding of what exactly is happening and what will happen next.

It is often hard for players to appreciate the differences in the armies. Good tactics for one are usually bad tactics for the other; the differences are so pervasive that players are apt to forget and respond in kind when

the opponent does something — it is usually a mistake!

SITUATION AND SET-UP

Differences begin right with the set-up. The German player can be "fast and loose" with his set-up, while the Russian has to place every unit with care. To discuss the Russian set-up, we will look at each deployment zone in turn.

Southern Zone. Here the Russian forces have some good terrain and some good units; unfortunately, there is not enough of either to stop the Germans from isolating the whole southern zone, or taking all the VP hexes there. The Germans simply have too much equipment in the area; and because they are under time pressure (knowing that they must lose the 29 Motorized Division on Turn 3), a major effort is usually mounted here.

Strategies here will differ, but a viable one is to defend as heavily as possible in the fortified zones, including the river bank and the great gully. Place those Guards 2-8's out in the open, where their Zones of Control will do some good; someone will have to die out there in any case. You want to defend the front with the required minimums. You should never, on the southern sector, put a unit anywhere but in a fort or heavy structure unless it is mandatory.

Central Zone. This is where the game can be won or lost. The great bulk of the Russian unrestricted deployment units are in this sector, as are all of the landing hexes.

There are two main strategies which the Russians can take. The first involves a maximum effort to defend Mamayev Kurgan. It is not possible to keep the German player from taking the hill on Turn 1. (This is a maximum of the Russian deployment; the German player can always take any one hex. The key is to cause losses and tie up German units to the greatest extent possible.) The strategy aims to make this a costly assault, which will soak up much of the German air and most of the German central ground forces. Normally this involves three 4-strength units, or three 3-strength units, on the hill itself, and small units in all the hexes around it. The woods are occupied with units (of whatever type) that have Zones of Control. The woods units and those around the hill will draw air or ground units to clear them for the final assault; three good units in a fortified hex will require a large assault force, and well deployed artillery will cause heavy losses.

The drawback to this approach is that once the hill does fall, the Russians are often hard pressed to defend the city behind it. Stalingrad is cut in two (or three) by the Germans on Turn 1 or 2. This is a serious development which can allow the Germans to pick off VP hexes at their leisure.

The other approach to the Mamayev Kurgan situation is to defend only the hill itself. Usually three 3-8's are on the hill, but the units are not placed around it, but rather in the heavy structure and fortified hexes behind it. The special structure hexes present a dilemma, especially in the set-up. Usually, you might put militia here, figuring that it would not be a good enough target to draw German air. You will hope to reinforce during a Reaction Phase, and then hope for the oil tanks to go up.

It will always be touch and go in the central ferry area, but an aggressive defense in the south may buy you time and, more importantly, may occupy the German forces there until Turn 3.

The Russian player must give thought to channeling the German attacks. The key thing is to keep at least two of the ferry hexes linked. This will give you strategic flexibility; you can give one up temporarily without immediate isolation. If you have only one ferry hex in an enclave, you are forced to overdefend it, possibly resulting in the loss of other VP hexes which might have been held.

The heart of the Russian position is the northern factory area, which covers the

northern ferry, provides armor replacements, and includes VP's which the German player must have to win. This area is favored by a dearth of German units on Turn 1. However, the Russian units defending the north zone are all vulnerable to German airpower, so an aggressive defense based on the heavy structures *south* of Rynok is necessary to prevent exploitation on Turn 1, and the area should be greatly reinforced by the end of Turn 2. The early level of fighting here will be determined by the German approach for Turn 2; that is, where the German player commits the bulk of his Turn 2 replacements and new units.

One of the most important considerations for the Russian player is the placement of the vital artillery units. Despite their high DF strengths, I do not recommend placing them in VP hexes. This allows the German player to get double duty from his dive bombers: clearing VP hexes *and* killing artillery at the same time. Non-VP fortified hexes are good placements, particularly Volga River Bank hexes. The fortification provides protection from level bombers, and dive bombers will not be clearing hexes that will have to be reoccupied.

Don't stack artillery! It makes too tempting a target for any attack, and increased coordination is an illusion. This is due to the peculiarities of the CRT. An attack which has a good chance to eliminate one unit will also have a significant chance to eliminate two. My own recommendation is to place them in adjacent hexes, making sure that all of these are fortified or heavy structure hexes. Often a diamond pattern is a good one, as the loss of any one artillery unit will not destroy the unity of the group for fire purposes.

It is not a good idea to stack overmuch in the initial set-up. There is so much German airpower on Turn 1 that even fortified hexes are possible targets, and heavy structures are completely vulnerable. Usually I would stack only in fortified zones; here at least the cost will be high. The same CRT peculiarity noted previously is what makes stacking unwise. A common German approach will be to blow (literally) a path through the Russian lines; you want to make that path include more hexes and fewer units, reducing the efficiency of the bombardment.

A further factor mitigating against stacking in non-crucial hexes is the reaction sequence. On Turn 1, the Russians *need* their reinforcements more than ever, due primarily to their poor enforced set-up, the heavy airpower losses they will suffer, and the freshness of the German forces. Therefore, the Russian wants to provoke as many attacks as possible, which requires units in as many hexes as possible. Once the lines are somewhat stabilized, stacking becomes more attractive.

Northern Zone. This zone is the worst situation on the map. There is no way to prevent the isolation of the Orlovka salient if the German player chooses to press there; therefore, put garbage units out there, but units with ZOC's. That will at least add to the

German movement difficulties as he wipes the units out. Again, don't stack; that lets the German use units efficiently, and it will not help your kill ratio. Disperse so that each attack will use up German units which might better be street fighting.

Even the units in the Rynok-Spartanovka area are in bad shape. The Russian player should get as many of these units back into the heavy structures in the central zone as possible; light structures simply do not provide enough defensive help. Remember that units can only be moved across the gully by Reaction Phase movement; don't wait thinking you can do it with Russian Strategic Withdrawal — you'll be sorry! If artillery here has survived the initial bombing, the Russian might consider moving it back even if that means giving up its use on Turn 1; the option may be gone by Turn 2.

THE GERMANS

The Germans do not need to be concerned with specific zones; they need to plan ahead and deploy accordingly. Before the first bomb falls, the Germans should have mapped out a basic first turn strategy. The Germans cannot attack everything, but they can make several major thrusts; and they do not have too many worries about counterattacks on this turn, as the Russians will be busy repairing their lines as a first step.

The key to any German strategy will be the central units: 295 and 71 Infantry Divisions, and possibly 24 Panzer. The direction which these units take will make the difference.

If the 295 Division moves north, then this will relieve 60 Mot of responsibilities for Orlovka, allowing it to combine with 16 Panzer in a strong attack on the northern factories. If 295 stays south, it provides for a strong thrust into the city center, aimed at Mamaeyev Kurgan and the Central Ferry hex. Should 24 Panzer be shifted north of the gully, then the central drive becomes *the* main event, and it has options to turn north or south once the Volga is reached.

In the south, 29 Mot should be able to compromise most of the area, either by assaulting the VP hexes or by isolating the whole group from the southern ferry. You must take care to plan for clearing all of the VP hexes here by Turn 2; once the 29 Mot is withdrawn, the offensive here will come to a screeching halt.

Aside from the planning, the set-up is not crucial for the Germans. They want to be as far forward as possible, especially the artillery. Artillery should be sited so it can bombard or advance to support. Preferentially, it will be in other than clear terrain; while the Russian air presence is minimal, it is foolish to throw the guns away carelessly. Guarding the key artillery — the 170 guns, the 210 howitzers, and the 100 guns — is a job that can be assigned to the one flak available Turn 1.

The plan will dictate such things as which side of the gully to place the 24 Panzer on, or where in the areas to deploy the 295 and 71 Infantry, etc. The one thing to

remember is to keep some stacks together where overruns are available. The German SPA is most excellent for this, as it has a strength of 8 to contribute, and it can overrun and then deploy for support.

OPERATIONS

General Statements on Unit Movement and Employment

German Operations. The general course of German operations will vary greatly from turn to turn. On Turn 1, the German player can be much more "fast and loose" with his movements. The opportunity for Russian offensive activity is small, due to the German strength and the Russian player's pressing need to move units into less exposed defensive positions. This turn will usually end with most Russian units moved, so things like "lines" are not crucial for the Germans. The later turns can be a different story. The German player must seek to *force* the commitment of the Russian arriving reinforcements. If he does not do so, the Russian player can accumulate them and bring them all on at a time when the German artillery is exhausted; the Germans will be hard pressed to hold if this occurs.

Usually, Turn 3 is key in this regard: the removal of 17 units heavily impacts on the German attack; the Russian has many quality reinforcements; the German player must be careful to hoard his artillery, especially the longer-ranged guns, and to keep them in secure places. With plenty of guns, a Russian attack can turn into a very expensive proposition for them.

The German player is often faced with conflicting objectives. He may have two hexes he has partially cleared for assaulting, yet he must do one at a time and risk a reaction, etc. Here is where one turn advance planning is crucial — the bulk of the "block clearing" tactics mentioned later in this article need planning, and the reader is referred there for ways in which this kind of situation can be resolved.

One thing which the German player should do, wherever he may plan to assault, is to occupy areas he has cleared. One small unit can save a very large attack later. This is especially true since these situations tend to occur most at the beginning of the turn, when most of the German artillery is available; thus, even a small unit is relatively secure from attack.

Another move to make whenever possible is to cut Russian supply. The loss of ability to conduct instant counterattacks is almost as valuable to the Germans as is the halving of firepower, since it allows planning without making allowances for losses in transit. Care must be exercised, however, to make sure that the units stay isolated — if this cannot be guaranteed, make every effort to wipe out as many as possible while they are halved, to save German units in the long run.

One of the more ticklish points is the coordination of assaults with artillery positioning. The artillery must be in position *first*, and sometimes the assaulting units have penetrated deep into Russian positions. Care

must be taken to clear the appropriate artillery sites before the artillery has to be there; if this is done skillfully, it can sometimes be a form of indirect approach, suggesting that the German player is developing an assault in a direction different from the one in which he intends to make his main effort.

Sometimes the German player must deal with opportunity: he has planned an assault on "A"; units are in position; the assault is likely to succeed; and then his air and artillery bombardment, through some unexpectedly good rolls, creates a golden opportunity in another area. The turn of the game is a main determinant in situations like this. In the earlier turns, the German player can afford to take an opportunity which promises excellent geographic gains, though it may not immediately yield VP hexes. In the later turns, he must ruthlessly stick to his plan (unless it is a plan born of desperation, in which case anything else may very well be preferable.

The same holds true regarding inflicting losses — these are more important earlier on. From Turn 5 or so, units become virtually meaningless; their only value is in the terrain they occupy, and the only reason to kill them is to occupy their hexes. If you do not plan to occupy a unit's hex, you should think long and hard about spending the effort to kill it.

The Orlovka salient presents an interesting situation to the German player. One of the most profitable ways to attack this sector is to use overruns. However, as with any overrun attack, this should not be done hastily. The salient should be first cut off from supply, and then the overruns should be conducted later, when initiating a Russian Reaction Phase will not upset carefully laid plans. The unique immobilizing effect of lack of supply on Russian units makes this quite a practical means of proceeding. If the motorized units are not available, large stacks of infantry can attack relying on breakthrough points; here the absence of instant counterattacks by Russian units will allow the German player to move his stack adjacent to two or more Russian-occupied hexes, reducing his need to achieve more than *one* breakthrough point. In any case, a point will come when the number of trapped units becomes too small to justify the number of German units needed to destroy them. The stragglers may then either be ignored, or left for the artillery and air to finish off.

One of the things which the German player must avoid is winning hexes *twice*. Once the Germans occupy a hex, they should aim to keep it. If they have the artillery handy, one unit is enough; but if their artillery will be depleted, then several may be necessary. The Germans should examine their last few assaults to see if: (1) they will be strong enough to hold what they will take; (2) their attacks will weaken their own hold on other key hexes, by drawing off ground units and/or artillery. As noted earlier, these questions are also involved with the Russian overall position: how much movement must the Russian player make to correct existing

deficiencies, and how much will he have available for counterattacking the German positions. There will come a time on most turns when further attacks will cost more than they gain.

German operations should always be pursued with the intent of cutting up the Russian positions. Taking the ferry hexes is usually not so important as cutting areas off from Russian reinforcement. This will, if achieved, permit tremendous gains in economy of force. If the Russian player can strengthen a position, then the German player must keep enough units nearby to deal with a maximum response; if the position is cut off, the German player can tailor his forces to the minimum necessary — this becomes increasingly important when the attack moves deep into the city. There the German units move slowly indeed, and a whole turn can be wasted shifting units which represent useless overkill.

There are few other general maxims. One is never to move a unit just to move it; having it available for instant counterattacks can be very important. Another bit of advice is always get your artillery under cover; this becomes more and more important as the Trans-Volga Artillery grows in strength. One final note is to always plan an attack on a heavy fortified structure so that you have a minimum of 5/6 chance to occupy it. The loss ratio on twice-assaulted hexes is something not even to be thought about.

RUSSIAN OPERATIONS

The Russian player must generally react, rather than act, until he has achieved some positional stability. Russian units, by and large, will cause more German losses defensively than anything they can hope to do attacking. The low stacking, weak strengths, and artillery limitations of the Russians severely cramp their plans for attacks.

The Russians must prioritize their continuity of lines. Lines should be several hexes deep, except in critical hexes (VP's and other fortified zones). Engineer units are a luxury at first, but some effort should be made to save a few, their presence can pay big dividends later; the best method for this is to place them in the VP hexes, since these had better be the last to go.

As noted with the German player, the nature of Russian operations is determined, in large part, by the stage which the Game-Turn has reached. If it is early, and the bulk of the German artillery is uncommitted, moves should be restricted to defensive adjustments, and reinforcements should be entered only if absolutely necessary. As the turn progresses, and the German force is spent, the Russian can allow himself some small thoughts of attack. Attack by the Russians should be for very valuable positions only — if the Germans will not be *compelled* to retake the position, don't try to take it from them. Usually this means only VP hexes, though sometimes an attack to restore communications between pockets is worth consideration.

It is certainly possible that at least one turn may find the Russians with only *one*

Reaction Phase. In this instance, attacks may be more feasible if due only to the large number of units with available movement. However, even here the first priority must be strengthening of defenses. If you plan to try to link-up, or to attack a ferry hex, remember to use the Volga River hexes to the maximum (more on this in the tactics section). Also, if you do link-up pockets, but know that you won't be able to keep them linked, stuff as many units as possible into the fortified zones — there they will retain their movement ability, devastating defensive fire, and great nuisance value by forcing the defense of otherwise secure VP hexes.

Finally, the Russian player must be patient; it will be entirely possible for the Russian *never* to attack in the game, and yet to win. A successful Russian defense will result in either the Germans never taking the necessary hexes, or in their taking them but being too weak to hold them against even modest Russian attacks. Either way, a win is a win.

Tactical Modules

The nuts and bolts of BFS

BASIC ATTACK TACTICS

The basic tactics of attacking are presented from the German viewpoint. The Germans will do about 90% of the attacking in the typical game of *Battle for Stalingrad*; also they are the ones with the units and coordination to apply preplanned tactics to attacks. The Russian player will usually find himself forced to adopt whatever of the following tactics he can manage, given his poor unit strength and coordination.

The main attacks discussed will be those that count: attacks on heavy or fortified structures. The basic patterns will be more or less identical for other combat, but the Germans can be much freer when the Russian defensive fire is not being doubled or tripled. Two basic types of attack will be looked at: maximum effort attacks (max attacks), which seek several breakthrough points and intend to use the same units to clear a number of hexes; and minimum level attacks (min attacks), which are aimed solely at gaining one hex using the least possible number of units.

Maximum attacks are almost mandatory on Turn 1; most of the "block clearing" approaches given later require a turn of set-up, and this is just not available. The following points are designed as a mental checklist, to recall when you plan or execute a max attack.

1. Maximum Stacking. 4 units per hex wherever possible. The German player must plan for this; remember that the stacking limits apply at all times in heavy structures, and your first units might block the later arrivals if you are careless.

2. Maximum Factors. That usually translates as armor, but not more than one per hex, otherwise the non-armor is relatively easy to peel off, destroying the effectiveness of the tanks. Use may also be made of direct-fire artillery. The drawback is that the guns

cannot follow up; they are usable only for the initial attack, and therefore should be used only where space is limited, or where their combat roles place them in a hex that you want them to occupy anyway.

3. Surviving Engineers. The only method to guarantee this is to have more engineer-occupied hexes than the Russian player has defending units. Where this is not possible, the use of multiple engineers on several hexes may preserve one for the battle.

4. Breakthrough Points. The use of many units in one attack necessitates that the attack will generate *more than one* breakthrough point. The following chart shows what attack strengths will have to survive defensive fire in order to generate breakthrough points; simply compare the expected values with the number of defending units, estimate your losses to defensive fire and add them in, and you will have a basis to estimate how much you will need. The chart also dramatically shows the necessity of having engineer units involved in attacks on heavy fortified structures.

ATTACK STRENGTH	EXPECTED VALUE WITH ENGINEER	HEAVY STRUCTURE EXPECTED VALUE WITHOUT ENGINEER	FORT STRUCTURE EXPECTED VALUE WITHOUT ENGINEER
18	3.0	2.16	1.84
22	3.5	2.66	2.16
26	4.0	3.0	2.66
30	4.5	3.5	3.0
36	5.0	4.0	3.5
42	5.5	4.5	4.0

5. Losses. As has been mentioned in other sections. The CRT is set up so that stacking raises the effectiveness of enemy fire, since, whatever the level of loss the firer aims at, if he has a good chance for X losses, there will also be a significant chance for X + 1 losses. Also, a max attack cannot be concealed. The units are right out there to look at, so it will usually draw a maximum response. The Russians need not repulse it; they need only, by their fire, reduce the number of breakthrough points earned, and/or select losses so that more breakthrough points will be needed to launch another attack.

6. No Second Chance. Should your max attack fail, you will not be likely to get another chance; the adjacent hexes will be choked with flipped-over units which will get in the way of further attacks this turn.

What is a minimum attack? This is an attack designed to just barely clear a hex; it usually features (1) many hexes involved, but few units in each; and (2) each hex set up to have units of nearly equal strength and value. The minimum attack assumes that the units involved will do nothing else this turn, win or lose — it is designed to minimize commitment of force in an area and to minimize losses.

Following is an example from a real game. Two Russian 8-6-6 artillery and a militia unit occupies a fort hex. Their DF has an expected value of loss of 7.5 units, with two 24-point attacks and one 3-pointer. this

was minimum attacked from all six adjacent hexes. Each hex contained one 5-4-12 battalion and either a 1-12 engineer or a 2-1-12 anti-tank units. This configuration was guaranteed to clear (if not occupy) the hex, and the expected loss was only 4.5 units. (In the actual case, only 4 units were lost.) The minimum attack saved three whole units by not providing a target for the high defensive fire expected.

Another use for minimum attacks is when you can use the small stacks, in place, for something. The most common use is to cut a sector off from supply. With no ZOC's in the city, you will have to put units out of these stacks, by routing the cordon adjacent to an enemy position to be attacked.

Using Tanks. The Germans can use tanks for upfactoring, as they are the most efficient units, aside from direct-firing artillery, for packing attack strength into a given space. Both sides can use tanks for protection; this is especially important for the German player as he attacks the ferry hexes, the river bank hexes, or the special structures. As the Trans-Volga artillery grows in power, armor units are almost the only ones that will be able to survive. One other use for armor units is on Turn 1, assaulting Mamayev Kurgan. Turn 1 is often when the Russian player has the most artillery available; and Mamayev Kurgan is usually a place which he will defend; therefore the tanks can be useful in weakening the Russian indirect fire.

Tanks, for the Germans, do have the disadvantage of brittleness. They come back only 1/3 of the time, and there are few to begin with. I have my own questions about the historicity of this, but the fact remains that the tank units must be hoarded for use later. This generally means no more than one per hex, and usually not without several other units; tanks enjoy no protection in direct combat.

Clearing Blocks. It is possible to greatly improve the German position insofar as clearing fortified hexes is concerned, and the suggestions that follow are directed to that end, though of course there is nothing to prevent their use with heavy structures as well. The common strain that runs through all of them is *planning*. Units must be in positions at the start of the turn, and this can mean some bizarre approaches to lead up to where you want to be next turn; hopefully these will be approaches that seem to have another purpose.

Direct Firing Artillery is perhaps the German player's best weapon against Russian fortified hexes. The use of this weapon during the operations stages has already been mentioned, but an even more effective use is for direct-fire (adjacent) bombardment. The Germans have very few mortar units, so most of their artillery can move adjacent to a hex and bombard it at full strength even if it is a fortified hex. Even two smaller batteries (8-10-12's for example) can guarantee a loss to a fortified hex, and have a 50% chance of killing two units. Normally this is all you want to attempt, as you gain little from killing a third unit since a "survivor" is created.

Reducing the number of defending units is very important for the German player; it both reduces the number of engineer units needed to assure one surviving, and a glance at the chart under "max attacks" will show how fewer defending units dramatically reduce the amount of attack strength needed to clear a hex. The reduction in units also limits the Russian player's options; he cannot so readily combine to annihilate a specific hex, and therefore the German player may be freer with his use of more valuable units, such as tanks or direct-firing artillery.

Other adjacent units can also be quite valuable. When you clearly do not have the steam to directly attack a fortified hex, but can attack others nearby, you can plan to leave a stack or more of units next to the fort. This will assume great importance should you clear the hex, or reduce the units in it, through some kind of bombardment. The adjacent units are available to launch instant counterattacks should the Russian player attempt to reinforce the fort. The Russian player is forced to choose between leaving the fort half empty or paying many units to put someone in it.

Other adjacent units will also be created when you move your artillery adjacent to set up the next turn's bombardment. Just shoving an artillery piece next to a fort is a good way to lose it in an instant counterattack; the artillery piece should be accompanied by at least two other units, to threaten a reply to an instant counterattack, and to absorb any losses. Such approaches are also suggested for earlier in the turn, when, should the Russian player attempt a counterattack, you are in a position to follow up any successes you might have from your own participation.

German self-propelled artillery can be especially useful for block clearing. These are the only artillery units able to participate in instant counterattacks, so that they can serve a dual function: in place of bombardment, but also usable for instant counterattacks if need arises. A particularly effective trick is to move the SPA unit adjacent to the fort and then deploy it there. The unit is perfectly capable of supplying some indirect fire support, but until it does, the Russian player must be careful about moving valuable units into or out of the fort hex, or into any other adjacent hexes.

"They'll Likely Gather at the River."

It is easy for the Russian player to undervalue the Volga River Bank hexes. These are some of the best hexes to defend on the map. They have the following significant advantages:

1. The Russians still triple their DF, and the Germans are still quartered for bombardment — the Russians are hard to dig out.
2. These hexes are the only place where stacking is equal; the reduction to 2 units hurts the Germans more than the Russians.
3. Attacking such hexes draws the German player into the guns of the Trans-Volga Artillery and Volga Flotilla, and they are clear terrain for Germans when bombarded.
4. The River Bank hexes can be attacked from fewer sites; as few as three hexes are ad-

acent, and at least two of these will also be VRB hexes, meaning fewer attackers and more TVA targets.

5. The River Bank hexes are always in supply, so units retain movement, and militia units can survive indefinitely.

When an area is cut off, the VRB hexes become even more crucial. If there are any places that the German player is likely to ignore, or that he will want to ignore, they will be non-ferry VRB hexes. Therefore these hexes make perfect locations for the remnants of the area force. Units should be moved or strategically withdrawn into such hexes, one per hex. The presence of such a force can tie down significant numbers of German units, to garrison VP hexes, that might otherwise be better used up front. Also, in desperate cases, the force can attack the VP hex.

As previously noted, the VRB hexes also make good artillery sites, mainly just because they are non-VP forts. They are not recommended for the mortars, however, as their short range is often all but useless from the riverbank.

AIRPOWER

Making the Most out of Fun

Few things in *Battle for Stalingrad* bring as much satisfaction as the Airpower Phase, particularly for the German player. You can bomb away with no danger of loss, and "no result" is the worst possible outcome. This makes planning especially important — an orgy of purposeless bombing, while it will certainly have results, may also put you fatally behind in the game.

Dive Bombers. To save them, or not to save them? Dive bombers' immunity to terrain effects makes them tempting to reserve for ground support, but my usual policy is to use them as tank and artillery killers as long as any worthwhile targets remain. For example, on Turn 1, my normal approach would be to make 13 two-point attacks; anything more wastes effort, since you can only kill one unit per attack anyway.

Normally, targets are Russian artillery; first the 6-14-6's; then either the 6-8-6's or 8-6-12's, depending on which ones are most immediately useful to the defense. Mortars are the last priority, as they can be more successfully ground-attacked than the others. Also not prioritized are artillery units which are not in fort hexes. On Turn 1, any such artillery can be smashed by level bombers or German artillery if need arises. A consistent campaign by the dive bombers against the Russian artillery can virtually eliminate them by the end of the game. This will reap dividends in economy of force, as the Germans will be able to better know their losses to DF in advance.

Level Bombers. Here is where planning is most crucial. Level Bombers, at least in the initial turns, will be used to blow open holes for the initial German Operation Phases. The holes must coincide with the plan! It is altogether too easy to pick the best units to kill, and deviate from the best path that is to be cleared.

There are times when the dive bombers must be called in, but normally level bombers work alone. Their use on Turn 1 is highly variable; the main lines of action are either to blow several holes, one in each sector, or to concentrate most of the punch in one area, aiming to virtually clear it from the air. Often the latter method is attempted in the Spartanovka/Rynok area, due to the absence of heavy buildings. Inadequate defense *behind* this area can allow the Germans to seize the tractor factory by a coup, and to compromise the northern ferry early in the game — a serious development.

The Russian player gets the short end of the airpower game. He uses his air points most often to pick off German artillery which is not covered by flak, or any other targets of opportunity. Sometimes pockets can be reconnected through air attack. They will be isolated afterwards, but this will give at least one chance for an instant counterattack if properly done. The Russian dive bombers are often most useful as ground support. They can add the crucial factors to an otherwise weak Russian attack — an all-important consideration late in the game if the Germans have just enough to win.

The German flak, however, is everywhere by the end of the game. There will be up to 10 flak units with ranges of up to three hexes, so the Russian player should be willing to take on one battery, or he may find no targets. The Russian player has three absolute priority units to hit. These are the three long-range batteries: the 100mm guns (2 batteries), and the 170mm guns (1 battery). While the 210 howitzers are valuable, the range of the other guns lets them deploy in a central position and dominate the whole map. If they can be killed, the German player will have to use a number of other batteries to provide the same coverage one of the long ranged ones could.

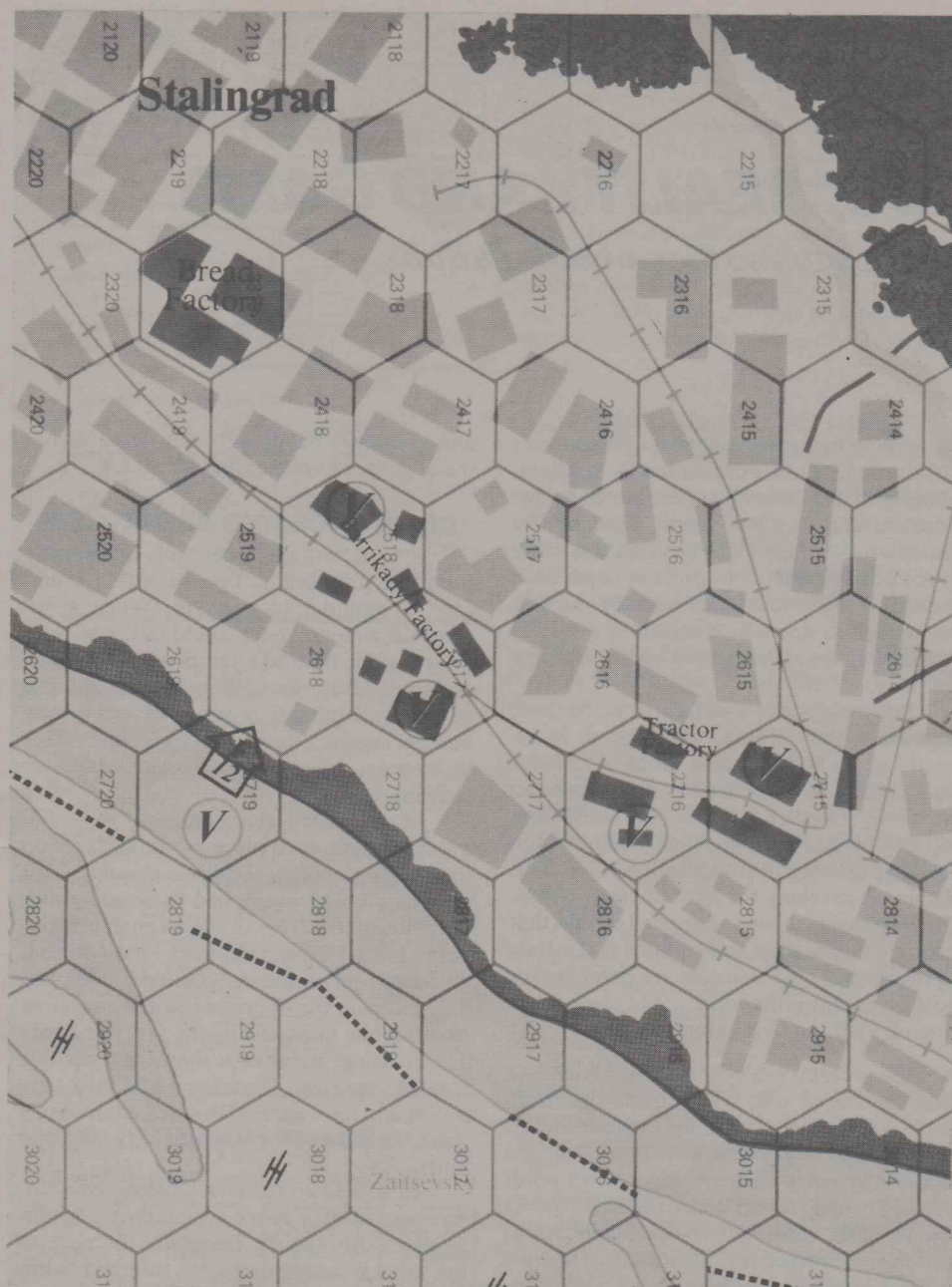
Soviet Militia. These units are quite unique, with special liabilities and abilities which players must allow for. The most important ability of militia units is their replacement. This is the only way new units can be placed into an isolated sector, (unless the sector includes the tractor factory, etc.) and even a very few units can really be built up by enough militia.

Initially the loss rate for militia will be high, and the replacements should be taken to the maximum. Later, as the weaker positions are eliminated from the Russian defense, the loss rate will drop, and the Russian player should give some thought to keeping back a few militia, so that there will be enough available to replace when need be, should a section be cut off.

Militia do require leadership, however. A non-militia unit must accompany all militia. Otherwise they lose their ability to move or to exist without supply (this last is especially important).

LOSSES/UNITS

In many respects, "a unit is a unit" in *Battle for Stalingrad*. The CRT makes no distinction, and both sides have many posi-



A section of the *Battle for Stalingrad* map.

tions where a 1 or a 6 is equally useful. Therefore, a look at the basic quantities of units can be worthwhile.

The Russian player has 282 units, initial plus reinforcements, and in addition receives militia and armor replacements. Giving estimates of 30 tank unit replacements and 38 militia replacements gives a total Russian expectation of 350 units. The German player has 188 units, initial plus reinforcements minus the 17 units of the 29th Motorized Division. To this he can add an expected value of approximately 80 replacements — depending, of course, on his losses. This gives a total of 268 German units for the game.

This raw ratio of 350 to 268 is misleading. The effective ratio is very close to 1-1. For example, the German player has available approximately 272 level bomber and 85 Stuka points; these together will account for over 60 Russian units. Addition-

ally, the Russian will suffer the loss of most of the Orlovka force out of supply, with virtually no German losses — a loss, conservatively, of 20 net units. The upshot of this is that the Russian *must* extract more than 1-1 losses whenever they defend in a fort or heavy structure hex. They should aim for 1.5-1 losses, but can win with 1.25-1. Anything less will eventually lead to the Russian running out of units; since they are defending, they will reach that point at which a shortage of units allows the attacker to bypass defenders, which can virtually eliminate them in *BFS* with its unique supply penalties that apply to the Russians.

Soviet Defense: Using Stacks. Initially, stacking is a luxury which the Russian player can rarely afford. This has been discussed earlier, but the basic reason, to restate, is that stacking increases losses. However a time must arrive when the Rus-

sian player begins stacking in non-VP hexes; this must be done with care.

While stacking begins as a means to hold a line firmly, a second aspect is the creation of efficient counterattack forces. For this purpose, stacks of three good units (3's) without slow artillery in them are best. Such stacks are the best places for your engineers, and a stack 2-12's or 3-12's somewhere can be a game saver. The Russians are always short of artillery support, so they must put their strength up front. To this end, it is sometimes good to place a fast artillery (8 or 12 MP's) into a stack to use for direct fire. The unit will be lost, but artillery units can always be killed anyway if the German player is willing to make the effort.

The best place to begin assembling such stacks is adjacent to VP hexes; in this way counterattacks can be generated without the necessity for excess movement.

Instant Counterattacks. The Russian player will do the bulk of the instant counterattacking; he also may lose the most by doing so. The first point to consider is the location of the units. Whenever the Russian player launches an ICA, he gives up his terrain. Therefore, the best place to ICA from is minimal terrain, such as woods or light structures; the worst from forts.

The second aspect is the chance and effects of a response. How many units are in the stack being attacked? These two questions establish the value of the attack. Then the Russian player must look at his immunity from response. This is dependent on the involvement of the German units, and the value of the ICA'ing units. If the German player is in the middle of setting up a large attack, he may not respond to prevent a possible Russian Reaction Phase. Also, if the units are unique, he may not be able to respond because he will lose them for the attack.

This is the main benefit of ICA's: the disruption of German plans. The unit killing aspect is always secondary. The Russians will get more fire power on defense, and will have terrain effects in their favor, so they will kill fewer units per Russian lost through ICA's.

Though the Germans will do less ICA'ing than the Russians, they have one unique advantage. Since the Russians are immune to stacking considerations while they move, the Germans can get some entirely free attacks. By ICA'ing Russians as they move over already stacked Russians, the possibility of response will cost the Russians all the responding units due to overstacking. The Russians will rarely get to try this because it only applies to German units in relatively open terrain.

SUMMARY

The game has a unique development; both sides can radically affect the outcome by one or two coups, and yet steady patient play yields great advantages. Two armies are wholly dissimilar, yet they are relatively balanced. The game moves well, tests planning and patience, yet has constant tension. All in all, I like it! ■■