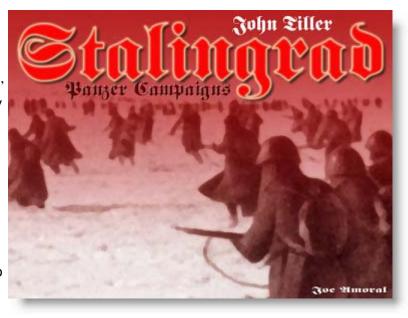
Stalingrad '42 Designer Notes

It has been the custom to begin the Panzer Campaigns' designer notes posing the question "why this particular title". In the case of Stalingrad' 42, one could equally ask "why did it take so long?"

I've always said that what I feel makes a good Panzer Campaign title is a variety of different types of combat situations, with an emphasis on mobile action, where ground changes hands within a reasonable period of time, so as to be gamed at the 2 hour time scale of the series.

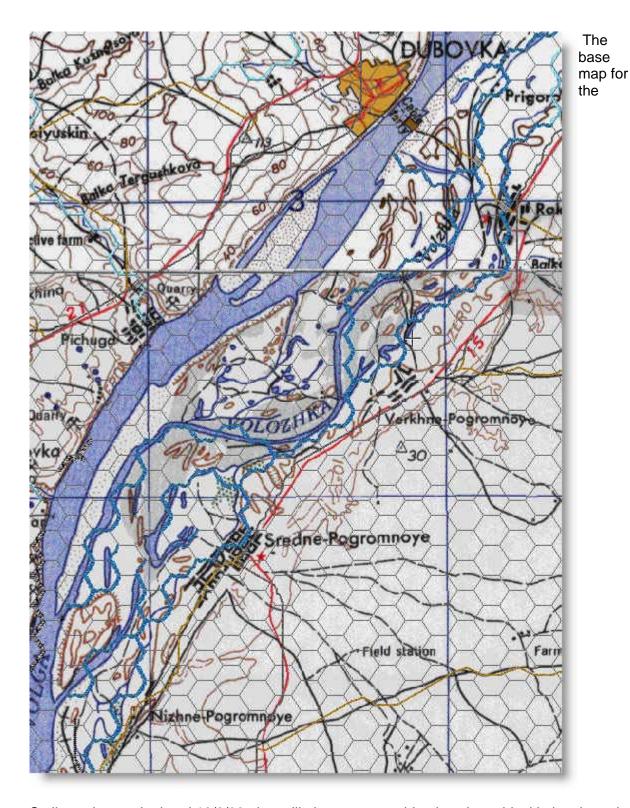


In Clark's book, "Barbarossa: The Russian-German Conflict 1941-45)", the chapters covering Stalingrad, says of the fight that it, ".... reflects the whole spectrum of military experience". He goes on to say that Stalingrad, what he calls, "a Verdun on the Volga", was "open warfare and maneuver, alternating with bouts of vicious infighting in a manner that evoked both the Western Desert and the subterranean grappling of Fort Vaux", (a centerpiece of the French Defense at Verdun in WWI).

Indeed, Stalingrad encompasses it all! Our challenge was to pick the part, or parts rather, we felt could make the best game, as it would be virtually impossible to do everything that everyone considers part of Stalingrad, not with a game with 2 hour turns. Hoyt's statement, in the title of his book on Stalingrad, calls this a "199 Day Battle". That would translate into approximately to 2000 turns.

At various times on Internet forums, people have suggested that we only picked East Front Battles where the Germans did well, even focusing on our Moscow game on the German attack rather than the Soviet Counter Offensive. So, for Stalingrad, we felt we would get this monkey off our back and focus the game on Operation Uranus. What we set out to do was to use the template established in Rzhev '42 and cover, not only the winter battles, as some players tire of all white maps and white camouflage units, but other battles too. So we felt we could add a few scenarios in the late summer and fall, during the drive to the Volga. Of course, we had to have at least one city fighting scenario, even though city fighting on a 1 km scale is not the PZC serie's strength. Finally, we would add a few scenarios covering the fighting in the later stages, the pocket and relief effort.

The Map



Stalingrad game is dated 12/6/99, that will give you some idea how long this title has been in the works at various stages. At 75,000 hexes, the map is large, although not quite as large as some of the other Eastern Front maps. It was completed by Blackie, at least the first cut, about 3 years ago.

The image at the right shows a sample of our source map, giving you the level of detail we had to work with. Our map building process involves using this period source, which is scanned and assembled into a single massive bitmap file. This image is loaded into our proprietary map-making program. Here we can toggle between viewing the source map with a hex grid, or the game map as players see it. Then hex by hex the game map is meticulously created.

The technique requires a great deal of time and patience. The process sees the map drawn in several passes. In the first pass the waterways are drawn. Then, using the drainage pattern, the mapmaker can better follow the contour lines while building the topography, which is the next phase. After topography comes a "culture" pass where the roads, railroads, towns, and villages are added. Then we add forest, swamps, fields and other items which we refer to as the color. Finally, in the last pass, labels are added to cities, towns, and villages, as well as the more significant waterways.

The net result is, what we believe, perhaps the most accurate set of operational scale maps ever made for a wargame of this scale.

Order-of-Battle Design

The game contains Orders-of-Battle to cover three distinct periods. Here again we took the Rzhev concept for the OOB into the early development of the Stalingrad OOB. That is, German company sized units organized in such a way so as to maximize combining into battalion units. We did away with the Regimental HQs as, more often than not, players in HTH matches were finding inventive ways to use these units for purposes other than those originally intended. As we've done with recent titles, such as Alamein '42 and France '40, we organized the German panzer units as companies within regiments. This allowed us more flexibility in having distinct panzer types, with accurate counts of vehicles, while still allowing the panzers the ability to combine. Thus encouraging players to adhere to the battalion style design, while still providing adequate flexibility.

The Soviet side of the OOB was structured the same as previous games. Units in battalion and divisions sized counters, which can be attached directly to the Army level HQ, unlike the divisions to corps relationship other nations have in other games.

Mike Avanzini was the OOB creator for this game. Many people familiar with the Series will be aware of Mike's work, but they may not know that he has started his own series of books: Armies of the Bear. Volume 1 has already been published by Tiger Lily Publications and is also available in Adobe PDF format. Mike is our Soviet OOB expert, as well as the man behind the campaign Maps that are part of all John Tiller Games.

The "Early" OOB file, covering the late summer, contains two distinct sections showing the level of effort Mike puts into his research. The German Army was virtually unchanged in that period. Then there is the main OOB covering Uranus. Finally, the last part was a separate

🖃 🛂 Armata 3 Rumanian (10746 Men, 34 Guns, 35 Vehicles, 93		
	— 📥 HQ Armata 3 [Gen Lt Dumitrescu, HQ, Motorized, 178	
	掛 🏭 KG Spang (3461 Men, 9 Guns, 35 Units)	
	掛 🏭 KG Stahel (1880 Men, 4 Guns, 24 Vehicles, 17 Units)	
de la companya de la	🖮 🏭 KG v. Stumpfeld (5227 Men, 21 Guns, 11 Vehicles, 44	
	HQ KG v Stumnpfeld Stab [Gen Maj v Stumpfeld,	
	- Gruppe Selle (1117 Men, 7 Guns, 10 Units)	
	HQ Grp Selle Stab [Obst Selle, HQ, Motorized	
	🖃 🛗 Alarm.Btl.Charkow I (555 Men, 7 Guns, 4 Un	
	1./A.B.Charkow I [42 Gren Kp w, Infant	
	2./A.B.Charkow I [42 Gren Kp w, Infant	
	3./A.B.Charkow I [42 Gren Kp w, Infant	
	Pak.Kp Charkow I [37mm Pak Kp, Anti-T	
	🖶 🛗 Alarm.Btl.Stalino I (270 Men, 3 Units)	
	进 🛗 Kradschützen.Btl.64 (14.PD) (202 Men, 2 Ur	
	🗐 🛗 Gruppe Adam (2745 Men, 9 Guns, 20 Units)	
	🕂 🛗 Gruppe Heilmann (384.ID) (555 Men, 4 Units)	
	🖶 🛗 Gruppe Schmidt (390 Men, 11 Vehicles, 5 Units)	
	掛 - 🛗 KG v Stumpfeld Res (330 Men, 5 Guns, 4 Units)	

December OOB. Here the detail can be seen, as Mike has assembled the details of the Army reassembled from the shattered remains that were not encircled with the Sixth Army. For example, I don't know of another game at this scale where the detailed make up of Alarm.Btl.Charkow I, part of Gruppe Selle and commanded by Gen Maj v Stumpfeld as part of KG v Stumpfeld, has ever been portrayed.

An incident worth recounting was on the fiinal run up to where we were to begin creating scenarios. While Mike was adding a new Hard Drive, he inadvertently fried his existing boot drive, the one that contained a nearly completed game OOB, and, you guessed it, no backup. It had been several months since he had even sent out a review copy to Blackie and I, who at the time were busy on another project, letting Mike work at his own pace. It turned out the cost of drive recovery was prohibitively expensive and, so once again, the OOB had to be built all over again. One can only imagine the thoughts that would run through anyone's head in this instance.

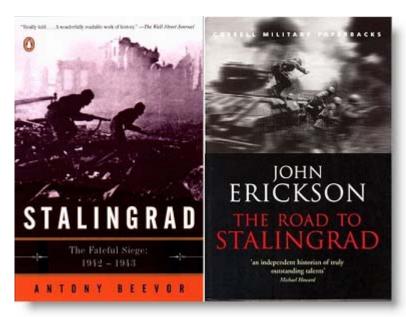
Sources of Information

There is a complete reference list at the end of the Notes, but a few sources of information are worthy of special mention. First of all, accurately placing units at this level, over wide areas, is not something you can normally do with a book from your local library. For this task we relied heavily upon the self published Battle Atlas' by David Glantz. Col. Glantz is perhaps the West's foremost expert on the Red Army in the Great War. He has published a number of books but, what we are referring to here, are the large 11 by 17 inch black and white Map Atlas' containing great detail at various levels.

For this game we used these different Atlas':

Operation Blau (Blue): The German Advance to Stalingrad 28 June to 18 November The Battle of Stalingrad: Red Army Offensive Operations 19 November to 2 February

Anyone interested in these Atlas's can contact David Glantz at Rzhev@aol.com.



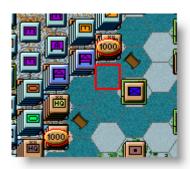
While there are any number of books about Stalingrad, when working with a group of people on scenarios, we usually settle on something as the source, as the default. With Stalingrad this was not possible, as there was just so much information. We started using Anthony Beevor's "Stalingrad" which is very good, but we also found John Ericksons "Road to Stalingrad" very good as well.

There were a number of books covering a wider focus which, nonetheless, contained valuable info for various scn. A

couple worthy of mention here, Paul Carell, Hitler Moves East, 1941-1943 and Alan Clark's "Barbarossa: The Russian German Conflict 1941-45" is also a very good read.

For players reading these books while exploring the various scenarios, please note that you might find some subtle differences in the time of release of units in the game as stated in some books. Please keep in mind the Germans normally recorded time using the Berlin Time Zone. On p.239 of his book Beevor says say the attack went in at 7:20 Russian Time -5:20 German time. So when you read in Carell book 22nd Panzer began to move at 10am, this may in fact be closer to 12pm, because in game terms, Carell's writing is from the German point of view.

New Game Feature - Full Water Ferries



In making this Panzer Campaign game, the second title in a row on the East Front primarily in winter, we almost thought we had every rule we needed to depict operational combat at Stalingrad. Then we discovered we needed a way to allow the Soviets to ferry units over the Volga River. We had the "Has Boats" engineer ability and, in fact, we planned on using them to simulate the many incursions of impromptu ferry efforts by the Soviets. But we still needed a way for non-foot units, and supply, to cross the Rivers, and "Has Boats" just wasn't the answer. Therefore the game feature, "Full Water Ferry" arose.

A Full Water Ferry is one that spans a water hex. It can be used for movement by units in Travel Mode, but requires the entire movement allowance of the unit to enter the hex containing the Ferry. The unit moves off the Ferry normally. Virtual Supply lines cross at Full Water Ferry Hexes but with a reduction of 20% in effectiveness.

The Game Scenarios

Mention Stalingrad to a group of Wargamers and you will conjure up many different aspects of a large battle which took place over a long period of time. My very first boardgame on the subject was made by Avalon Hill, it covered the entire first stage of the war on the East Front. My last boardgame was a very detailed affair by Phoenix Games called "Streets of Stalingrad", which showed the titanic struggle to control the city in the late fall of 1942.

We trust that this selection of scenarios will give all of the players something of what they feel Stalingrad is to them. A great deal of effort has gone into making this game perhaps the best yet, in terms of scenarios optimized for Al Play, as well as Head-to-Head (HTH) matches.

Frequently there are two or more copies of each, often with different victory levels set to provide the appropriate challenge. In these cases, it is normally the convention to use a lower case "a" in the number, to depict the one best suited for HTH play. In the case where there is no "a" scenario, we encourage this for both AI or HTH play.

While there are a large number of people involved in making any Panzer Campaign, there are a couple of individuals I would like to single out for special mention this time.

Rick Bancroft has been an active member of "The Blitz" (www.theblitz.org) for a number of years. Plus he has designed post release scenarios of all sizes for other PZC games. He helps out as a rule expert of the forum and he has been a playtester since Rzhez '42. In Stalingrad he has tried his hand at designing a few scenarios, and I think you guys will enjoy his work in this game.

Mark Mazer is a new member of our test team. Those of you active on the forums will recall a number of differences in opinions between Mark and I on various aspects of these games which we share a passion for. I met Mark at the Tillercon in June of 2005 where we hit it off quite well. It was at the Tillercon where his idea to allow AT Guns to take a loss and then retreat, was accepted and since released in the game. In this title Mark was responsible for Head-to-Head playtesting of the main Uranus Campaign, and I we feel certain that you guys are really going to enjoy this one, both the historical setup, and a couple of the hypothetical situations we've devised around it.

THE SCENARIOS

Scenario List

The Early Period

Getting Started: Opportunity at Nizhne-Chirskaya #00_Started.scn #0723 01 Don Bend.scn 0723 01: The Don Bend #0723_01a_Don_Bend.scn 0723_01a: The Don Bend - [HTH] #0724_01_Mayorovskiy.scn 0724_01: Breakout of Group Zhuravlev 0724_01a: Breakout of Group Zhuravlev - [HTH] #0724_01a_Mayorovskiy.scn #0823_01_Latashanka.scn 0823_01: The Volga is Reached 0823_01a: The Volga is Reached - [HTH] #0823_01a_Latashanka.scn 0829_01: Hoth's Gamble #0829_01_Abganerovo.scn #0829_01a_Abganerovo.scn 0829_01a: Hoth's Gamble - [HTH]

The Uranus Campaigns and variants

#1119_01_Uranus.scn	1119_01: Operation Uranus (19 Nov - 19 Dec)
#1119_01a_Uranus.scn	1119_01a: Operation Uranus (19 Nov - 19 Dec) - [HTH]
#1119_02_Uranus.scn	1119_02: The Uranus Encirclement (19 Nov - 23 Nov)
#1119_02a_Uranus.scn	1119_02a: The Uranus Encirclement (19 Nov - 23 Nov) - [HTH]
#1119_03_Uranus_Retreat.scn	1119_03: Uranus - Retreat from Stalingrad
#1119_03a_Uranus_Retreat.scn	1119_03a: Uranus - Retreat from Stalingrad - [HTH]
#1119_04_Uranus_Corset_Variant.scn	1119_04: Uranus - 20\20 Hindsight - The Corset Variant
#1119_04a_Uranus_Corset_Variant.scn	1119_04a: Uranus - Hindsight - The Corset Variant - [HTH]
#1119_05_Uranus_SS_Rescue.scn	1119_05: Uranus - The SS to the Rescue Variant
#1119_05a_Uranus_SS_Rescue.scn	1119_05a: Uranus - The SS to the Rescue - [HTH]

Uranus smaller scenarios

1119_10: STALINGRAD - The Holy Grail!
1119_11: The Blow at Bolshoy
1119_11a: The Blow at Bolshoy - [HTH]
1119_12: Too Little - Too Late
1119_12a: Too Little - Too Late - [HTH]
1119_13: The First Cut is the Deepest
1119_13a: The First Cut is the Deepest - [HTH]
1120_21: Hell for Leather
1120_21a: Hell for Leather - [HTH]
1120_22: A Day in the Lake Country
1120_23: The Long Left Hook
1120_23a: The Long Left Hook - [HTH]

The later period

	P
#1122_01_Kalach.scn	1122_01: The Bridge at Kalach
#1127_01_Kotelnikovo.scn	1127_01: Train Now Arriving at Platform 1
#1208_01_State_Farm79.scn	1208_01: State Farm 79 - [As German or HTH]
#1212_01_Aksay.scn	1212_01: Operation Winter Storm
#1212_01a_Aksay.scn	1212_01a: Operation Winter Storm - [HTH]
#1212_02_Chir_River.scn	1212_02: Plugging the Dyke
#1223_01_Reverse_Aksay.scn	1223_01: The Bear Strikes Back
#1231_01_Ring.scn	1231_01: Operation Ring
#1231_01a_Ring.scn	1231_01a: Operation Ring - [HTH]
#1231_01b_Ring.scn	1231_01b: Operation Ring - [Russian Al Attacker]

Scenario Overviews

Getting Started: Opportunity at Nizhne-Chirskaya

Nizhne-Chirskaya, 80kms W of Stalingrad, Aug 18th 1942: This is a "What If" scenario. After the German 6th Army's headlong dash toward Stalingrad, the Don presented itself as quite an obstacle. "What If" German engineers had been sent, with a small protecting force, to repair the bridges at Nizhne-Chirskaya? "What If" the Russians had sent a reconnaissance in force to neutralize these engineers? [Size, small] Designer's Note: For play as Allied Human vs. the AI using the Started.HLP quick start guide.

0723_01: The Don Bend

Don River Bend, 125 kms W of Stalingrad, July 22nd 1942: After the spring battles around Kharkov, the Germans launched Fall Blau, the dual drive on the Caucasus and Volga at Stalingrad. The Soviet army was conducting a fighting withdrawal, but was now pushed into the natural funnel of the Great Don Bend, with Kalach as the outlet of the funnel, just a short march from Stalingrad on the Volga. The German plan was to reach Kalach, trapping the Soviet 62nd Army in the bend, and thus opening the way to Stalingrad. [Size, large]

0723_01a: The Don Bend - [HTH]

Don River Bend, 125 kms W of Stalingrad, July 22nd 1942: After the spring battles around Kharkov, the Germans launched Fall Blau, the dual drive on the Caucasus and Volga at Stalingrad. The Soviet army was conducting a fighting withdrawal, but was now pushed into the natural funnel of the Great Don Bend, with Kalach as the outlet of the funnel, just a short march from Stalingrad on the Volga. The German plan was to reach Kalach, trapping the Soviet 62nd Army in the bend to destroy it, and thus opening the way to Stalingrad. [Size, large] Designer's Note: Best played HTH. Russian frontline units start out unfixed, allowing more options for their use.

0724_01: Breakout of Group Zhuravlev

Don River Bend, 125 kms W of Stalingrad, July 24th 1942:The drive by the German 6th Army into the Great Don River Bend, aimed at Kalach, had pocketed a number of Soviet formations around the town of Mayorovskiy. These units were placed under the command of Col. Zhuravlev. These units did, in fact, break out to the east. Can you break out, with the assistance of the two tank corps, and force your way to the east? [Size, medium]

0724 01a: Breakout of Group Zhuravlev - [HTH]

Don River Bend, 125 kms W of Stalingrad, July 24th 1942: The drive by the German 6th Army into the Great Don River Bend, aimed at Kalach, had pocketed a number of Soviet formations around the town of Mayorovskiy. These units were placed under the command of Col. Zhuravlev. These units did, in fact, break out to the east. Can you break out, with the assistance of the two tank corps, and force your way to the east? [Size, medium] Designer's Note: This scenario has been optimized for HTH play.

0823_01: The Volga is Reached

Vertyachiy, 50kms WNW of Stalingrad, Aug 23rd 1942: On August 21st the German LI Korps established two bridgeheads over the Don near Luchinskiy and Vertyachiy. These were rapidly secured so that about midday, on Aug 22nd, pontoon bridges had been built and the 16th Panzer Division was rolling across the river. The next morning the armored spearhead rolled east over the sun baked steppe towards the Volga. They received massive Luftwaffe support along the route and reached the river late in the afternoon, cutting a corridor across the 40 mile stretch of land between the two great rivers. [Size, small] Designer's Note: This scenario is loosely based on this event.

0823 01a: The Volga is Reached - [HTH]

Vertyachiy, 50kms WNW of Stalingrad, Aug 23rd 1942: On August 21st the German LI Korps established two bridgeheads over the Don near Luchinskiy and Vertyachiy. These were rapidly secured so that about midday, on Aug 22nd, pontoon bridges had been built and the 16th Panzer Division was rolling across the river. The next morning the armored spearhead rolled east over the sun baked steppe towards the Volga. They received massive Luftwaffe support along the route, reached the river late in the afternoon, cutting a corridor across the 40 mile stretch of land between the two great rivers. [Size, small] Designer's Note: This scenario is loosely based on this event and has been optimized for HTH play.

0829_01: Hoth's Gamble

Abganerovo area, 65kms S of Stalingrad, Aug 29th 1942: This is a "What If" scenario. Gen Hoth had decided that his men would no longer fight over the heavily fortified hills south of Krasnoarmeisk. Using a bold plan, he pulled out his panzer and motorized formations, and moved them 30 miles away, to attack northwards to outflank the left wing of the 64th Army. The plan worked so well, the Germans now saw an opportunity to pocket the 62nd and 64th Armies. The problem was that Gen Paulus was unable to spring a couple of divisions to free up his mobile formations to meet Hoth's armor coming from the south. "What If" Paulus had been able to become the northern half of the pincers? [Size, large] Designer's Note: The trench lines, marked with impassable hexes, along the northern and south eastern map edges are to indicate where the forward positions were at this date. They have no bearing on the battle.

0829_01a: Hoth's Gamble - [HTH]

Abganerovo area, 65kms S of Stalingrad, Aug 29th 1942: This is a "What If" scenario. Gen Hoth had decided that his men would no longer fight over the heavily fortified hills south of Krasnoarmeisk. In a bold plan he pulled out his Panzer and Motorized formations and moved them 30 miles away to attack northwards to outflank the left wing of the 64th Army. The plan worked so well, the Germans saw an opportunity to now pocket the 62nd and 64th Armies. The problem was that Gen Paulus was unable to spring a couple of divisions to free his mobile formations to meet Hoth's armor coming from the south. "What If" Paulus had been able to become the northern half of the pincers? [Size, large] Designer's Note: This scenario has been optimized for HTH play. The trench lines, marked with impassable hexes, along the northern and south eastern map edges are to indicate where the forward positions were

at this date. They have no bearing on the battle.

0829_01b: Hoth's Gamble - [German Al Attacker]

Abganerovo area, 65kms S of Stalingrad, Aug 29th 1942: This is a "What If" scenario. Gen Hoth had decided that his men would no longer fight over the heavily fortified hills south of Krasnoarmeisk. In a bold plan he pulled out his Panzer and Motorized formations and moved them 30 miles away to attack northwards to outflank the left wing of the 64th Army. The plan worked so well, the Germans saw an opportunity to now pocket the 62nd and 64th Armies. The problem was that Gen Paulus was unable to spring a couple of divisions to free his mobile formations to meet Hoth's armor coming from the south. "What If" Paulus had been able to become the northern half of the pincers? [Size, large] Designer's Note: This scenario has been optimized for play as the Allies. The trench lines, marked with impassable hexes, along the northern and south eastern map edges are to indicate where the forward positions were at this date. They have no bearing on the battle.

1119 01: Operation Uranus (19 Nov - 19 Dec)

Stalingrad, November 19th 1942: Operation Uranus was a well conceived attack by the Russians following the all too familiar pattern of the encirclement battles of the first year of the war on the East Front. The northern prong had two operational areas, Bolshoy and Kletskaya, its goals was to cut through the weaker 3rd Rumanian Army covering the flank and drive to the Don River crossing at Kalach. The southern prong, was launched a day later from the Krasnoarmeysk area, just south of Stalingrad. In addition, there were a couple other attack concentrations further south, but again, these were planned in sectors defended by the less effective Rumanian divisions. [Size, large]

1119_01a: Operation Uranus (19 Nov - 19 Dec) - [HTH]

Stalingrad, November 19th 1942: Operation Uranus was a well conceived attack by the Russians following the all too familiar pattern of the encirclement battles of the first year of the war on the East Front. The northern prong had two operational areas, Bolshoy and Kletskaya, its goals was to cut through the weaker 3rd Rumanian Army covering the flank and drive to the Don River crossing at Kalach. The southern prong, was launched a day later from the Krasnoarmeysk area, just south of Stalingrad. In addition, there were a couple other attack concentrations further south, but again, these were planned in sectors defended by the less effective Rumanian divisions. [Size, large] Designer's Note: This scenario has been optimized for HTH play.

1119 02: The Uranus Encirclement (19 Nov - 23 Nov)

Stalingrad, November 19th 1942: The goal of the Soviet Offensive, "Operation Uranus" to encircle the German Sixth Army in Stalingrad with a two ponged attack. The northern prong came from Bolshoy and Kletskaya, and was to cut through the 3rd Rumanian Army covering the northern flank and drive to Kalach on the Don River. The southern prong, from the area of Krasnoarmeysk area, just south of Stalingrad was launched a day later with the goal of

cutting through units of the IV Rumanian Corps and drive west and then north to meet at Kalach. [Size, large] Designer's Note: This scenario is a copy of the full campaign shortened to cover the Soviet attack and encirclement of the German Sixth Army. As such the victory levels have been changed to reflect this shorter period. However, reinforcements and other later occurring events have been left in the scenario file so that players enjoying the scenario against the AI or in PBEM using non-encrypted files can extend the length of the game in a text editor.

1119_02a: The Uranus Encirclement (19 Nov - 23 Nov) - [HTH]

Stalingrad, November 19th 1942: The goal of the Soviet Offensive, "Operation Uranus" to encircle the German Sixth Army in Stalingrad with a two ponged attack. The northern prong came from Bolshoy and Kletskaya, and was to cut through the 3rd Rumanian Army covering the northern flank and drive to Kalach on the Don River. The southern prong, from the area of Krasnoarmeysk area, just south of Stalingrad was launched a day later with the goal of cutting through units of the IV Rumanian Corps and drive west and then north to meet at Kalach. [Size, large] Designer's Note: This scenario has been optimized for HTH play. Special thanks to Mark Mazer for his effort in testing this scenario and optimizing the victory for HTH Play.

1119_03: Uranus - Retreat from Stalingrad

Stalingrad, November 19th 1942: In the Campaign scenarios, players have been given an opportunity to wargame the historical situation and setup that existed at the start of the Soviet Uranus Offensive. Wargamers familiar with the battle are aware that there is one huge factor that is difficult to factor into a game such as this. That is the insistence of the man the German High Command privately referred to as "the Bavarian Corporal" - that is, Adolph Hitler himself. It was he who was obsessed with Sixth Armies goal to take the city named for Joseph Stalin. It was he that insisted the events unfolding on the flanks of the Army were temporary set backs which he could recover from. In this scenario we will investigate events if the Germans were not compelled to cling to the west bank of the Volga and instead embarked upon a more sensible withdrawal to the Don River. [Size, large] Designer's Note: This scenario concept removes a number of large objectives east of the Don River and reduces the victory levels accordingly. However, in the face of a German withdrawal, the Russian 24th and 66th Army of the Don Front is released to the offensive, earlier than was historically the case.

1119_03a: Uranus - Retreat from Stalingrad - [HTH]

Stalingrad, November 19th 1942: In the Campaign scenarios, players have been given an opportunity to wargame the historical situation and setup that existed at the start of the Soviet Uranus Offensive. Wargamers familiar with the battle are aware that there is one huge factor that is difficult to factor into a game such as this. That is the insistence of the man the German High Command privately referred to as "the Bavarian Corporal" - that is, Adolph Hitler himself. It was he who was obsessed with Sixth Armies goal to take the city named for Joseph Stalin. It was he that insisted the events unfolding on the flanks of the Army were temporary set backs which he could recover from. In this scenario we will

investigate events if the Germans were not compelled to cling to the west bank of the Volga and instead embarked upon a more sensible withdrawal to the Don River. [Size, large] Designer's Note: This scenario has been optimized for HTH play.

1119 04: 20\20 Hindsite - The Corset Variant

Stalingrad, November 19th 1942: Anyone who has studied, read about or gamed the historical situation surrounding the German defeat at Stalingrad knows that it was Hitler's fixation with taking the city that lead to the German disaster. In his assessment, the Soviets could not mount an offensive on the flanks and so it was deemed these long flanks could be held by weak and poorly equipped Minor Axis partners such the Rumanians. In this WHAT IF Scenario we will examine one possibility set of circumstances had the Germans adopted a "corset" approach on the flank. The term "corset" was used to describe how German units were distributed around the different defence sectors to act as 'Korsettstangen' or 'corset-stiffeners. Rommel used this in North Africa "stiffen" his less well motivated and equipped Italian allies along his lines. This variant has a German Infantry Corps move from the north flank facing the Don Front and its infantry divisions corseted with Rumanian Divisions. On the southern flank, one the Rumanian Divisia 20 Infantarie has been interleafed with the German 297.Infantry Division to screen the Ivanovka sector while the 71. Infantry Division has been attached to the Rumanian Corpul VI Armata to stiffen the Rumanian Defense in the lake country. And some Panzer Units have been stationed in order to provide a ready reserve for the 6th Army. It is not intended to be a perfect Axis defense, but in light of events in hindsight, it would seem to be more sensible option. [Size, large] Designer's Note: This campaign variant has been shorten like the 1119_02 scenario to cover only the first four and a half days in which the Soviets historically encircled the German Sixth Army. However, reinforcements and other later occurring events have been left in the scenario file so that players enjoying the scenario against the AI or in PBEM using non-encrypted files can extend the length of the game, even after play has begun, by changing the last value on line three of the battle file, using a text editor.

1119 04a: Uranus - Hindsight - The Corset Variant - [HTH]

Stalingrad, November 19th 1942: Anyone who has studied, read about or gamed the historical situation surrounding the German defeat at Stalingrad knows that it was Hitler's fixation with taking the city that lead to the German disaster. In his assessment, the Soviets could not mount an offensive on the flanks and so it was deemed these long flanks could be held by weak and poorly equipped Minor Axis partners such the Rumanians. In this WHAT IF Scenario we will examine one possibility set of circumstances had the Germans adopted a "corset" approach on the flank. The term "corset" was used to describe how German units were distributed around the different defence sectors to act as 'Korsettstangen' or 'corset-stiffeners. Rommel used this in North Africa "stiffen" his less well motivated and equipped Italian allies along his lines. This variant has a German Infantry Corps move from the north flank facing the Don Front and its infantry divisions corseted with Rumanian Divisions. On the southern flank, one the Rumanian Divisia 20 Infantarie has been interleafed with the German 297.Infantry Division to screen the Ivanovka sector while the 71. Infantry Division has been attached to the Rumanian Corpul VI Armata to stiffen the Rumanian Defense in the lake country. And some Panzer Units have been stationed in order to provide a ready reserve for the 6th Army. It is not intended to be a perfect Axis defense,

but in light of events in hindsight, it would seem to be more sensible option. [Size, large] Designer's Note: This scenario has been optimized for HTH play. It is a campaign variant like the 1119_02 but with a more sensible WHAT IF Axis Defense. However, reinforcements and other later occurring events have been left in the scenario file so that players can use the game editor to lengthen the scenario and adjust the victory levels while still retaining later campaign reinforcements and other events.

1119_05: Uranus - The SS to the Rescue Variant

Stalingrad, November 19th 1942: While reading as many different

books covering Operation Uranus, I came upon this passage in "Hitler Moves East 1941-1943" by Paul Carell. He said: "November 1942 was a month of disasters. On 4th Nov Rommel's Africa Army was badly mauled by Montgomery at Alamein and had to save itself by withdrawing from Egypt into Tripoli. Four days later Eisenhower's invasion army landed in the rear of the retreating German forces, on the west coast of Africa and started advancing on Tunis. The long-range effects of the shocks in Africa were felt on all German fronts. Hitler found himself compelled to secure also that part of Southern France which had hitherto been occupied. As a result, four magnificently equipped major mobile formations, which might otherwise have been available for the Eastern Front, were tied down in France - the 7th Panzer Division, and the "Leibstandarte", Das Reich" and the "Death's Head" Waffen SS Divisions. So for this WHAT IF Campaign variation, we will suppose that Rommel in North Africa was a success at Alamein and therefore the three SS Panzer Divisions remained in the east and were available to rescue the Sixth Army encircled in Stalingrad. They are joined by the SS.Wiking Division which was in the East Front but not yet ready for deployment at this early venture. [Size, large]

1119_05a: Uranus - The SS to the Rescue - [HTH]

Stalingrad, November 19th 1942: While reading as many different books covering Operation Uranus, I came upon this passage in "Hitler Moves East 1941-1943" by Paul Carell. He said: "November 1942 was a month of disasters. On 4th Nov Rommel's Africa Army was badly mauled by Montgomery at Alamein and had to save itself by withdrawing from Egypt into Tripoli. Four days later Eisenhower's invasion army landed in the rear of the retreating German forces, on the west coast of Africa and started advancing on Tunis. The long-range effects of the shocks in Africa were felt on all German fronts. Hitler found himself compelled to secure also that part of Southern France which had hitherto been occupied. As a result, four magnificently equipped major mobile formations, which might otherwise have been available for the Eastern Front, were tied down in France - the 7th Panzer Division, and the "Leibstandarte", Das Reich" and the "Death's Head" Waffen SS Divisions. So for this WHAT IF Campaign variation, we will suppose that Rommel in North Africa was a success at Alamein and therefore the three SS Panzer Divisions remained in the east and were available to rescue the Sixth Army encircled in Stalingrad. They are joined by the SS. Wiking Division which was in the East Front but not yet ready for deployment at this early venture. [Size, large] Designer's Note: This scenario has been optimized for HTH play.

Stalingrad, November 19th 1942: After several months of bloody house to house fighting, the Soviet positions on the west bank of the Don had been reduced to pockets of stone and rubble, that were as shallow as 300 meters, with many of the key positions in Germans hands. But these last islets of resistance had been forged by fire. On the Nov 17th, Hitler had wired von Paulus a message urging a guick resolution to the fighting in Stalingrad, a message Von Paulus had read out to each divisional commander. The assault began in driving rain and snow resulting in no air support. On that day, they gained yet another 50 meters in one place, 100 meters in another. One more day, two at the outside, would put them in complete possession of "the Holy Grail", the complete city. But Soviet attacks on the north flank put an end to this final push before noon on the Nov 19th. [Size, small] Designer' s Note: This scenario is a historical setup which shows the desperate slugfest for Stalingrad The fighting could have continued through the whole day, with the Germans capturing the city had the Soviet offensive been delayed. The scale of the Panzer Campaign series was never designed to model street-fighting over weeks, or months, where gains were measured in meters. But this scenario is included to illustrate the desperate battle that occurred prior to the Soviet attack on November 19th 1942 as I am sure had it not been included, people would have asked for it...

1119_11: The Blow at Bolshoy

Bolshoy, Nov 19th 1942: The "Blow at Bolshoy" followed the first strike at Kletskaya, (see scenario #1119_13), by half an hour. Here the 5th Tank Army shattered the defenses of the Rumanian II Corps As they were at Kletskaya, the Romanian Infantry were ill-equipped to face the challenge, and by midday, the 9th and 14th Rumanian Infantry Divisions were disintegrating and streaming back in panic. The Soviets thrusts followed right on there heels, as they streamed south and southwest to the Chir River, but more importantly, to the southeast for the big prize - the Bridge at Kalach on the Don River. [Size, small] Designer's Note: This scenario is intended to depict the first day's fighting as the hole was opened on the flank. Players who wish to explore the effect of the arrival of the 22.Pz Division are referred to scenario 1119 12 that covers a slightly larger area for two days of fighting.

1119 11a: The Blow at Bolshoy - [HTH]

Bolshoy, Nov 19th 1942: The "Blow at Bolshoy" followed the first strike at Kletskaya, (see scenario #1119_13), by half an hour. Here the 5th Tank Army shattered the defenses of the Rumanian II Corps As they were at Kletskaya, the Romanian Infantry were ill-equipped to face the challenge, and by midday, the 9th and 14th Rumanian Infantry Divisions were disintegrating and streaming back in panic. The Soviets thrusts followed right on there heels, as they streamed south and southwest to the Chir River, but more importantly, to the southeast for the big prize - the Bridge at Kalach on the Don River. [Size, small] Designer's Note: This scenario has been optimized for HTH play.

1119_12: Too Little - Too Late

Perelazovskiy, Nov 19th 1942:The 22nd Panzer Division had recently been positioned at the rear of the 3rd Rumanian Army to provide anti-tank support to the poorly equipped Rumanian infantry divisions. Previously, it had been lying scattered to the west, behind the

Italian Front, where it received no fuel for training, or even for turning over the engines of its panzers. So when the time came to move, over half the division's strength was left immobilized. Then, when the attack came, the division was order to move eastward toward Kletskaya (see scenario 1119_13). A short time later the order was countermanded to the new axis of advance, in the opposition direction. As a result, the luckless panzers flung themselves into the path of the 5th Tank Army as it streamed south through the gash it had cut in the Rumanian Line. But alas, it was to be Too Little - Too Late! [Size, medium] Designer's Note: This scenario is intended to be played as the Allied player and depicts the first two days fighting where the 22.Pz Division comes to the aid of the Rumanians in an effort to halt the Soviet advance. Players who wish to focus on the actual breakthrough of the front line are referred to scenario 1119_11.

1119_12a: Too Little - Too Late - [HTH]

Perelazovskiy, Nov 19th 1942:The 22nd Panzer Division had recently been positioned at the rear of the 3rd Rumanian Army to provide anti-tank support to the poorly equipped Rumanian infantry divisions. Previously, it had been lying scattered to the west, behind the Italian Front, where it received no fuel for training, or even for turning over the engines of its panzers. So when the time came to move, over half the division's strength was left immobilized. Then, when the attack came, the division was order to move eastward toward Kletskaya (see scenario 1119_13). A short time later the order was countermanded to the new axis of advance, in the opposition direction. As a result, the luckless panzers flung themselves into the path of the 5th Tank Army as it streamed south through the gash it had cut in the Rumanian Line. But alas, it was to be Too Little - Too Late! [Size, medium] Designer's Note: This scenario has been optimized for HTH play.

1119 13: The First Cut is the Deepest

Kletskaya, November 19th 1942:. At dawn, the earth erupted from the Russian guns and Katyusha rocket batteries as the barrage plastered the Rumanian front lines. Then came the Soviet infantry, first without tank support. They were beaten back by shaken Rumanian Infantry. With no time to waste, the tanks and cavalry were fed into the attack. The outgunned and outmatched Rumanians could not hope to hold the line. The defenses began to crumble, and the flood of Soviet tanks and cavalry streamed south, proving once again "The First Cut is the Deepest" [Size, small]

1119_13a: The First Cut is the Deepest - [HTH]

Kletskaya, November 19th 1942:. At dawn, the earth erupted from the Russian guns and Katyusha rocket batteries as the barrage plastered the Rumanian front lines. Then came the Soviet infantry, first without tank support. They were beaten back by shaken Rumanian Infantry. With no time to waste, the tanks and cavalry were fed into the attack. The outgunned and outmatched Rumanians could not hope to hold the line. The defenses began to crumble, and the flood of Soviet tanks and cavalry streamed south, proving once again "The First Cut is the Deepest" [Size, small] Designer's Note: This scenario has been optimized for HTH play.

Krasnoarmeysk, 15 km S of Stalingrad, Nov 20th 1942: On the second day of the Soviet Uranus Offensive, a badly supplied 51st and 57th Army joined in the attack. It was once again focused on shattering the weaker Rumanian infantry formations, holding the flanks of the powerful 6th Army, caught in a titanic struggle for the city itself. In this northernmost section of the south flank battle, the task of 57th Army was to breach the line in the sector held by the Rumanian 20th Infantry Division. This first part of the battle developed as the Soviets had planned, but as the tanks of the 13th Tank Corps streamed through the line, they were met by a powerful force from the German 29th Motorized Infantry Division. It had set off "hell for leather" at the first sign of trouble, catching the Russian tankers by surprise, engaging them at close range and destroying numerous T-34's. The action by this crack unit fresh off refit saved the day in this sector. [Size, medium]

1120_21a: Hell for Leather - [HTH]

Krasnoarmeysk, 15 km S of Stalingrad, Nov 20th 1942: On the second day of the Soviet Uranus Offensive, a badly supplied 51st and 57th Army joined in the attack. It was once again focused on shattering the weaker Rumanian infantry formations, holding the flanks of the powerful 6th Army, caught in a titanic struggle for the city itself. In this northernmost section of the south flank battle, the task of 57th Army was to breach the line in the sector held by the Rumanian 20th Infantry Division. This first part of the battle developed as the Soviets had planned, but as the tanks of the 13th Tank Corps streamed through the line, they were met by a powerful force from the German 29th Motorized Infantry Division. It had set off "hell for leather" at the first sign of trouble, catching the Russian tankers by surprise, engaging them at close range and destroying numerous T-34's. The action by this crack unit fresh off refit saved the day in this sector. [Size, medium] Designer's Note: This scenario has been optimized for HTH play.

1120_22: A Day in the Lake Country

Tsatsa, 50 km S of Stalingrad, Nov 20th 1942: On the morning of the second day of the Uranus Offensive, the Stalingrad Front, commanded by Gen Col Yeremenko, joined the battle. In the vicinity of Tsatsa, between two large lakes, elements of the 15th Guards Rifle Division, supported by independent tank and motorized brigades from 51st Army, faced the Rumanian 18th Infantry Division. This battle was a side show, designed more to tie down the Axis troops and attempt to pin this infantry division in a pocket against the bulge in the line formed by the 57th Army in Krasnoarmeysk. [Size, small]

1120_23: The Long Left Hook

Zety, 35 km SW of Stalingrad, Nov 20th 1942: On the second day of the Soviet Uranus Offensive, a badly supplied 51st and 57th Army joined in the attack. It was once again focused on shattering the weaker Rumanian infantry formations holding the flanks of the 6th Army in Stalingrad. In this southernmost section of the south flank battle, the task of 51st Army was to breach the line in the sector held by the Rumanian 1st Infantry Division, between Lake Tsatsa and the larger Lake Barmantsak. No sooner had the crisis in the

Krasnoarmeysk sector 25km north been averted by the swift action of the 29th Motorized Division, than a breakthrough came in this sector. However, elements of 29th Mot Divisions were in full swing and well positioned to avert this second disaster by driving south into the flank of the 4th Mech Corps. Then orders came down to break off the attack and adopt a defensive screen. This action allowed 'the Long Left Hook" of the Soviet breakthrough to race unchecked deep into the German rear, encircling von Paulus' Sixth Army in Stalingrad [Size, medium]

1120_23a: The Long Left Hook - [HTH]

Zety, 35 km SW of Stalingrad, Nov 20th 1942: On the second day of the Soviet Uranus Offensive, a badly supplied 51st and 57th Army joined in the attack. It was once again focused on shattering the weaker Rumanian infantry formations holding the flanks of the 6th Army in Stalingrad. In this southernmost section of the south flank battle, the task of 51st Army was to breach the line in the sector held by the Rumanian 1st Infantry Division, between Lake Tsatsa and the larger Lake Barmantsak. No sooner had the crisis in the Krasnoarmeysk sector 25km north been averted by the swift action of the 29th Motorized Division, than a breakthrough came in this sector. However, elements of 29th Mot Divisions were in full swing and well positioned to avert this second disaster by driving south into the flank of the 4th Mech Corps. Then orders came down to break off the attack and adopt a defensive screen. This action allowed 'the Long Left Hook" of the Soviet breakthrough to race unchecked deep into the German rear, encircling von Paulus' Sixth Army in Stalingrad [Size, medium] Designer's Note: This scenario has been optimized for HTH play.

1122_01: The Bridge at Kalach

Kalach, 75kms W of Stalingrad, Nov 22nd 1942: Kalach was the principal objective for three Soviet Tank Corps in Operation Uranus, this was the point that Stavka saw the pincers linking up. The Germans were unaware of the scope and speed of the Russian advance, and the defenses at Kalach were completely inadequate for the task. An assortment of sub-units, mainly supply and maintenance, had settled in the town for the winter. There were 4 Luftwaffe AA sites on the western heights, with about 25 men assigned to the immediate security of the bridge. There were 2 more AA guns on the east side of the bridge with a scratch battalion of rear troops in the town. The 19th Tank Brigade left Ostrov in the early hours of Nov 22nd to capture the temporary bridge intact. [Size, small]

1127_01: Train Now Arriving at Platform 1

Kotelnikovo Station, 150km SW of Stalingrad, Nov 27th 1942: The 6th Panzer Division were being shipped by rail to join LVII Panzer Korps. It had been refitted in France and was fully up to strength. The first carloads had just steamed into the Kotelnikovo station when it was greeted by a hail of shells and attacks from Russian infantry. Panzer grenadiers leapt from their wagons to join the fray. [Size, small]

1208 01: State Farm 79

State Farm 79, 150kms W of Stalingrad, Dec 8th 1942: The Soviet 1st Tank Corps had crossed the Chir on Dec 7th, penetrating to State Farm 79 by evening. 11.Panzer Div was just arriving in the area. It was tasked with launching a drive toward Stalingrad from a bridgehead over the Don, at Nizhne Chirskaya, in support of the main drive from Kotelnikovo further south. However, this Soviet penetration was a threat to that mission and had to be eliminated first. [Size, small] Designer's note: best played as German against the AI or HTH.

1212_01: Operation Winter Storm

Kotel'nikovo, 180kms SW of Stalingrad, Dec 12th 1942: Operation Winter Storm was quite predictable, as far as the direction from whence it would come. Zhukov had predicted a two-pronged attack from the Chir and Kotel'nikovo areas, however, the Soviet 5th Tank Army was attacking along the Chir which ruled it out as a start line. The German LVII Pz Korps was quite weak, but was given the 6.Pz Div which had been refitted in France. Also the 17.Pz Div was due to join the Korps, but was held up for four days. Initially the fighting went well for the Germans but gradually the attack lost steam, and was all but over 10 days later when Manstein ordered a general withdrawal. [Size, large]

1212_01a: Operation Winter Storm - [HTH]

Kotel'nikovo, 180kms SW of Stalingrad, Dec 12th 1942: Operation Winter Storm was quite predictable, as far as the direction from whence it would come. Zhukov had predicted a two-pronged attack from the Chir and Kotel'nikovo areas, however, the Soviet 5th Tank Army was attacking along the Chir which ruled it out as a start line. The German LVII Pz Korps was quite weak, but was given the 6.Pz Div which had been refitted in France. Also the 17.Pz Div was due to join the Korps, but was held up for four days. Initially the fighting went well for the Germans but gradually the attack lost steam, and was all but over 10 days later when Manstein ordered a general withdrawal. [Size, large] Designer's Note: This scenario has been optimized for HTH play.

1212_02: Plugging the Dyke

Chir River, 140 kms W of Stalingrad, Dec 12, 1942: The 11th Panzer Division was ordered into the Don Bend in order to assist the drive to relieve Stalingrad from the south, which began on December 10. The orders were to launch a flanking attack from Nizhne Chirskaya, approximately 60 kms from the trapped 6th army forces at Marinovka, to support the forces driving up from Kotel'nikovskiy and thus take pressure off the relief force. However, while preparing to move into position for this attack, the Russian army struck first, across the Chir River in two locations. Ultimately the mission to assist the Stalingrad relief effort faded away due to a series of Russian offensives across the Chir. [Size, medium] Designer's Note: the Russians are much stronger in this scenario and is best played against the Soviet AI, or a more experienced German against another human player.

1223_01: The Bear Strikes Back

Myshkova River, 100kms S of Stalingrad, Dec 24th 1942: The German Operation "Winter

Storm" had ground to a halt along the Myshkova River. Field Marshall von Manstein had to reconsider his whole position as the threat to the left flank of Army Group Don had developed from Operation "Little Saturn". On the evening of Dec 23rd, the order went out for the battered panzer divisions to pull back in turn, 6th Pz being the first. Meanwhile, the Soviet High Command planned a frontal attack with the 2nd Guards Army to destroy the enemy formations between the Myshkova and Aksay rivers. While this was happening, on the evening of Dec 24th, mechanized formations would go for the Rumanian units covering the flank of LVII Pz Korps. A further, deep, outflanking movement was to be launched to carry the Soviets to the Sal River. [Size, large]

1231_01: Operation Ring

Stalingrad, Jan 10th, 1943: Operation Ring was preceded by a massive barrage the initial attacks were to try to eliminate the SW protuberance, named the Marinovka, or Karpovka, Nose. After the bombardment, three waves of men rolled forward with red banners waving, tanks were mixed in at regular intervals. On the southern sector a hole was opened around the Rumanian positions, but was quickly sealed, in the NE the German line bent, but did not break. The main Soviet effort was from the west and the weakened German divisions, with little ammunition, did not stand a chance. Gradually they were pushed back. The 6th Army's resistance, considering their physical and material weakness, was amazing, they made the Soviets pay dearly for each yard, especially in the first 3 days. [Size, large] Designer's Note: This scenario has been shortened from the historical timeline and is Best Played as Human Russian attacker against the AI.

1231_01a: Operation Ring - [HTH]

Stalingrad, Jan 10th, 1943: Operation Ring was preceded by a massive barrage the initial attacks were to try to eliminate the SW protuberance, named the Marinovka, or Karpovka, Nose. After the bombardment, three waves of men rolled forward with red banners waving, tanks were mixed in at regular intervals. On the southern sector a hole was opened around the Rumanian positions, but was quickly sealed, in the NE the German line bent, but did not break. The main Soviet effort was from the west and the weakened German divisions, with little ammunition, did not stand a chance. Gradually they were pushed back. The 6th Army's resistance, considering their physical and material weakness, was amazing, they made the Soviets pay dearly for each yard, especially in the first 3 days. [Size, large] Designer's Note: This scenario has been shortened from the historical timeline. This *a* version of the scn has the Victory conditions adjusted for Human vs. Human or Head-to-Head play.

1231_01b: Operation Ring - [Russian Al Attacker]

Stalingrad, Jan 10th, 1943: Operation Ring was preceded by a massive barrage the initial attacks were to try to eliminate the SW protuberance, named the Marinovka, or Karpovka, Nose. After the bombardment, three waves of men rolled forward with red banners waving, tanks were mixed in at regular intervals. On the southern sector a hole was opened around the Rumanian positions, but was quickly sealed, in the NE the German line bent, but did not break. The main Soviet effort was from the west and the weakened German divisions, with little ammunition, did not stand a chance. Gradually they were pushed back. The 6th Army's

resistance, considering their physical and material weakness, was amazing, they made the Soviets pay dearly for each yard, especially in the first 3 days. [Size, large] Designer's Note: This scenario has been shortened from the historical timeline. It has been optimized for the AI to play the Russian attacker using adjusted victory levels, forts and supply.

REFERENCES

Beevor, Anthony; Stalingrad: The Fateful Siege 1942-1943, Penguin Books, 1999.

Chamberlain, Peter and Doyle, Hilary; Encyclopedia of German Tanks of World War II, Sterling Publishing Co. 1999.

Carell, Paul; Hitler Moves East 1941-1943, Bantam Books, 1966.

Clark, Alan; Barbarossa: The Russian-German Conflict 1941-45, Quill Publishing, 1965.

Erickson, John; The Road to Stalingrad: Stalin's War with German, Yale University Press, 1975.

Foss, Christopher; The Encyclopedia of Tanks and Armoured Fighting Vehicles, Amber Books, 2002

Glantz, David M.; Atlas of Operation Blau: The German Advance to Stalingrad (28 June - 18 November 1942) self published.

Glantz, David M.; Atlas of the Battle of Stalingrad: Red Army Offensive Operation (19 November-2 February 1942) self published.

Gryler, A. N. et al.; Boevoi Sostav Sovetskoi Armii (Combat Composition of the Soviet Army); Military History Directorate of the General Staff, Moscow.

Hamilton, Scott S. and Smith, Gregory M.; HPS Simulations: Encyclopedia of Land Combat, HPS Simulations, 1997.

Hayward, Joel S.A., Stopped at Stalingrad: The Luftwaffe and Hilter's Defeat in the East 1942 - 1943, University Press of Kansas Press, 2001.

Hogg, Andy; The Greenhill Armoured Fighting Vehicles Data Book, Greenhills Books, 2000.

Hoyt, Edwin p.; The Battle for Stalingrad: 199 Days.

Jentz, Thomas; Panzer Ttruppen 1; Schiffer Publishing, Atglen, PA, 1996.

von Mellenthin, MGen F.W.; Panzer Battles, 2001

Nafziger, George F.; The German Order of Battle, Panzers and Artillery in World War II; Greenhill Books, 1995.

Nafziger, George F.; The German Order of Battle, Infantry in World War II; Greenhill Books, 1995.

Nafziger, George F.; The German Order of Battle, Waffen SS and Other Units in World War II; Greenhill Books, 1995.

Neihorster, Leo W.G.; German World War II Organizational Series, Vol 4/I; Neihorster, Canada, 1994.

Poirier, Robert G. and Conner, Albert Z.; The Red Army Order of Battle in the Great Patriotic War; Presidio, Novato CA, 1985.

Sharp, Charles C.; Soviet Order of Battle World War II, Vol I to XI; Nafziger, West Chester OH, 1995-6.

U.S. War Department; Handbook on German Military Forces; Louisiana State University Press, Baton Rouge, 1995.

Zaloga, Steven J. and Ness, Leland S., Red Army Handbook 1939-1945, Sutton Publishing Ltd, 1998.