

## OPERATIONAL ANALYSIS

# HIGHWAY TO THE REICH

## An Ahistorical Plan for Success

by Stuart Glennan

*Highway to the Reich* was one of those big SPI games that had a tortured birth and infancy but nevertheless seems to have come out ok after all. The game's designer (Jay Nelson) beat his brains out trying to get the system to cohere. The developer (Irad Hardy) had serious difficulties as well. The rules that resulted (even as the game went overtime, overbudget and over everything) were fairly icky. So icky that we did them over and sent out free copies to the original buyers. And if you don't think that that's expensive, try it with your own game company!

—RAS

Operation Market-Garden was one of the most fascinating campaigns of World War II. In large part, this is because of the major intelligence blunders which led to and governed the course of the battle. The daring operation was undertaken without the knowledge that the II SS Panzer Corps and OBW headquarters (commanding the entire western front) were located within a few miles of the 1st Airborne Division's landing zones at Arnhem. What is most amazing about the battle is just how close the Allies came to victory. They almost succeeded because of the indecision of the German High Command and the skill and valour of the Allied Airborne Corps.

In *Highway to the Reich* (hereafter *HWTR*), the Allied Player knows that he will be facing a panzer corps (albeit under-strength) at Arnhem. Unlike Montgomery, he does not have the power to call the operation off. His task then is to succeed in spite of these additional forces. He may either attempt to play the game with the same basic plan as was used historically, or he may use available forces to formulate an alternate strategy which will succeed where the other failed.

Before I can go into the various strategies presented to the player, it is necessary to give a little background on the game system and the battle itself. The most important aspect of the game is its excellent combat system. Each unit has a basic strength (modified by losses), effectiveness rating (reflecting the relative effectiveness of a unit's weapons systems), and morale rating. Direct fire combat combines the factors of current strength, effectiveness, terrain, target type, and mode (concentrated, dispersed, or travel). There is another form of combat called close action; this is a direct assault on an enemy position taking into account all of the factors in direct fire plus morale.

Great emphasis is placed on the command/supply net. The players are required to maintain divisional, regimental, and even battalion integrity for purposes of supply, artillery support, and combat.

The game map accurately shows the problems that faced the Allies. There are four maps labeled A-D lying north to south in bowling alley fashion. The Allied high command planned to make one thrust (Operation Garden) up to a single highway to Arnhem and obtain the elusive and long sought after bridgehead over the Rhine River. In order to reach its objective, the armored spearhead had to make its way over a total of 12 rivers and canals, most of which had bridges which could be destroyed.

In order to capture these all-important river crossings, a vast airborne army (Operation Market) was to be dropped over the Dutch countryside. The First Airborne was to land at Arnhem, the 82nd Airborne was to land at Nijmegen and Grav, and the 101st Airborne was to land to the north of Eindhoven.

The operation was supposed to be directed against a very lightly defended sector. Unfortunately for the Allies, it was not to be. By the time that the Garden forces got to Arnhem, the bridge over the Rhine was safely in the hands of an SS Panzer Corps that just happened to be at Arnhem for rest and refit. All that remained to be done was evacuate the remnants of the shattered 1st Airborne Division and swallow a bitter defeat.

### The Historic Game

The first full game that I played utilized essentially the same plan as was used in the original battle. The drop zones, supply heads, and objectives were as listed in the game's scenarios. What follows is a brief account of the course of the battle.

On game-turn one, the 1st Airborne Division landed without incident west of Osterbeek, almost twenty hexes from Arnhem bridge. The 16th SS Training Battalion (located just east of the British drop zones) put up sufficient resistance to thwart the British drive to Arnhem until the units of the 9th SS Panzer Division could arrive. The railway was finally taken intact, but the main bridge was not taken and the paratroopers had incurred heavy losses. Meanwhile, the other units had been somewhat more successful. The 82nd had secured all of its objectives and was facing little resistance, although the

bridge over the Wilhelmina Canal had been blown. XXX Corps had encountered heavy resistance and was slowed up by traffic jams, but it had succeeded in breaking through the German line.

The following day, the 1st Airborne received its reinforcements with little loss in landing. The two companies that had reached the railroad bridge were isolated and casualties continued to pile up. The 82nd continued to hold despite the heavy resistance coming from the 10th SS Panzer Division around the landing zones in the Groesbeek Heights. The 101st faced almost no resistance except at their northern flank in the vicinity of Veghel (C3013). XXX Corps made it to the Wilhelmina Canal where they had to stop for bridge repairs. Guards Armored then proceeded slowly northward, hampered by units on the road in the area between the southern positions of the 82nd and the northern positions of the 101st. By the end of the second day, Guards Armored had only reached the banks of the Maas River.

On the morning of day three, the Polish Parachute made a jump in the vicinity of Driel in a desperate attempt to capture the Rhine crossings from the south and relieve the pressure on the 1st Airborne. The drop was intercepted by the Luftwaffe and took heavy losses. The Poles were thwarted in their attempts to gain the bridges and were forced to establish a defensive perimeter around their landing zones. They did however succeed in disrupting the activities of engineers attempting to fortify positions between the Waal and Rhine rivers. The 1st Airborne continued to shrink under pressure from the 9th SS Panzer Division and artillery from the flak brigade.

At Nijmegen, the 82nd Airborne continued to hold despite heavy resistance from the east. Casualties were steadily increasing. Meanwhile, the 101st Airborne faced a consolidated drive toward the road from the 107th Panzer Brigade and elements of the 59th Infantry Division's recon regiment and anti-tank units, the troopers beat off the attack.

Guards Armored made quick progress toward Nijmegen. Upon their arrival (game-turn 20), the tankers stopped to help save the weakened 82nd Airborne's drop zones. After securing Nijmegen, Guards Armored tried to force the road towards Arnhem. They were stopped cold. For the last two days, German engineers had been constructing entrenchments on raised roads and in crucial towns

between the Rhine and Waal. The entrenchments were filled with SS infantry and, more importantly, the newly arrived anti-tank units of the flak brigade (strength 7, effectiveness 9, range 2). Devastating opportunity fire from the two hex ZOC's made bypassing the positions impossible. At the same time, the tanks were unable to get near enough to the guns to successfully attack them. With German reinforcements arriving by the minute and Guards Armored unable to crack the German defensive line, the players decided that it was not worth spending the extra hundred hours it would require to finish an already decided contest.

### The Mistakes

The historical game pointed out some rather crucial errors which had a crucial effect on the outcome of the game (and the battle). The most important of these mistakes are as follows:

1. *Drop zones of the 1st Airborne:* The positioning of the 1st Airborne's drop zones was perhaps the greatest mistake in the entire campaign. The paratroopers landed over ten kilometers from their main objective, the highway bridge at Arnhem. They were forced to fight their way through substantial resistance (including the 16th SS Training Battalion) in order to reach their objectives. Even had the paratroopers made it to the bridge, they would have had big problems keeping their supply head due to the large defensive perimeter that would have to be established in order to encompass all of the 1st's territory.

2. *Undefended areas between the Rhine and Waal rivers:* The area between the 1st and 82nd Airborne Divisions was not touched by the Allies except for a latent attempt to save the 1st by the Polish Parachute Brigade. The easily defended raised roads made it essential that the area should be captured before German entrenchments could be constructed to halt the Allied advance. This failure was a crucial factor in stopping a XXX Corps advance.

3. *Misuse of the 101st Airborne:* Undefended areas between the sectors of the 101st and 82nd airborne divisions were repeatedly blocked by relatively weak units. Although the Germans were easily destroyed by Guards Armored, each unit cost the column valuable time. At the same time, units in the 101st southern sectors that could have been used elsewhere faced no resistance.

With these problems in mind, I set myself to the task of eliminating them without creating any new ones. Upon looking at the problem of the 1st Airborne's drop zones, I reached the same dilemma that the original Market planners had found; the terrain to the west of the Osterbeek where the 1st Airborne landed is the only area around Arnhem that can accommodate large numbers of glider forces (if the historically accurate Case 23.3 concerning glider landings is used), and the first day landing forces of the 1st Airborne contain great quantities of gliders. The question then arose, "Why did the 1st Air-

borne land at Arnhem in the first place?" Unable to answer this question, I decided to land elsewhere, forget Montgomery, and forge out into the great unknown.

### The Ahistorical Plan

With the aforementioned ideas in mind, I have devised a plan which I now put up for public scrutiny. The major variance from the historical Market-Garden plan is the placing of the 101st Airborne Division at Arnhem and the 1st Airborne south of the Maas River. There are a number of other changes which have been noted in the unit by unit order of battle that follows.

1st Airborne: The 1st Airborne's new landing zones are located slightly north of the historical ones of the 101st. The recommended hexes are: 1/1 (C5621); 1AL/1 (C3319); Supply head (C5621). The positioning of the 4/1 which arrives later in the game is variable depending on the player's current position.

In theory, the area that the 1st is responsible for extends from Nijmegen (5217) to a hex about halfway between the Maas River and the Maas-Waal Canal (B2126). In practice, the area will probably extend southward only as far as the Wilhelmina Canal (C0516). In either case, the area is very large (100 and 86 hexes respectively) for an airborne division that will be fighting for at least two days before all of its forces get on the ground. Before the 1st Airborne commander gets too upset, he should realize that none of his sector faces any heavy resistance until the arrival of the 107th Panzer Brigade arriving on D+2. Still, succeeding is no mean feat and, as such, the methods should be gone into in a little greater depth.

Just how hard the task is depends quite a bit on the actions of the German player. In the initial deployment, there is a lone German tank battalion (16 tanks) from the 9th SS Panzer Division located at Nijmegen (D5019). These units have three options; they can go to the front line and try to assist in the defence against Guards Armored, they can return to their home unit at Arnhem, or they can head towards Veghel and attempt to disrupt the actions of the 1st Airborne. If the Germans chose the third option, it can get quite tough for the Allied player. Suddenly, the already stretched paratroopers must fight their way through five tank platoons in order to reach their objectives.

To successfully combat this threat, the Allied player should land serials 45 and 46 (containing AT guns, the recon battalion and artillery) with the 1st Airlanding Brigade in the southern drop zones. (It should be noted that the recon battalion represented a specialized unit of jeeps and motorcycles landed with the 1st Airborne for the purpose of seizing Arnhem brigade before the Germans could react. Due to the mechanized nature of the unit, it is recommended that the players treat the units as armored infantry for movement purposes.) The recon battalion and AT guns should be sent immediately south, avoiding Veghel if it is being defended by German forces of any quality, to capture the

Wilhelmina Canal. The recon battalion should continue southward until it reaches either the canal or German tanks. They should then set up a screen to allow the 17 pounders to set up. Although this maneuver will result in the loss of much of the recon battalion, the AT guns' 2 hex ZOC's will halt any drive by the German tanks until the arrival of the Garden forces. The Allied player should take advantage of the German's lack of headquarters and concentrate his forces along the German's limited avenues of attack.

In the 1st Parachute Brigade's sector, the player should fan out and send two battalions to capture the bridge at Grav. This should be relatively simple as the only Germans in the area are two units on the bridge itself.

82nd Airborne: The plans for the 82nd are little changed from the 82nd's plans in the historical game. The only major difference is the placing of the responsibility for the Maas River crossings in the hands of the 1st Airborne and the extension of the 82nd's sector northward toward Arnhem. The recommended drop zones are: 504/82 (B3340); 505/82 (B2637); \*508/82 (B2245); Supply head (B2838). The positioning of the 325/82 should be determined when it is dropped on D+2 or 3.

Since by far the most serious resistance in the 82nd's sector comes from the east in the vicinity of the Groosbeek Heights, but the 504th and 508th regiments should be allocated to that area. However, one battalion of the 504th should be sent to eliminate the garrison on the unit on the highway bridge over the Waal as the 504th has the most direct access to the bridge. Upon capture of the bridge, the battalion should relinquish its control to the upcoming of the 505th regiment.

The 505th regiment has the largest area of the three regiments to cover. First, it must send units to capture the crossings of the Maas-Waal Canal. This task will be greatly simplified if the units can destroy the German flak batteries before they have a chance to recover from the special first turn suppression (rule 31.12). After this task is accomplished, the regiment should send two battalions towards Arnhem, leaving one battalion south of the Waal to defend the canal crossings. The northern units should form a line extending from the highway bridge to the town of Elst (A0828). Although this area may seem rather extensive for a single regiment, assuming the bridge at Arnhem has been blocked to German traffic, there will be few Germans entering the regiment's sector.

101st Airborne: By virtue of its proliferation of paratroops and corresponding lack of glider troops, the task of capturing Arnhem falls to the 101st Airborne Division. The major benefit of this switch is that the paratroops will be able to land closer to their objectives, to the inside rather than outside of the initial German resistance. The new drop zones which would accomplish this are: 501/101 (A2535); 502/101 (A1336); 506/101 (A2224); Supply head (A2324). The 327th

regiment should be landed on the second day to help out where needed. The 101st does have one major weakness; it lacks both artillery and anti-tank guns. The Allied player can take care of this problem by not dropping serials 10 and 44 (from the 1st Airborne) and dropping serials 15 and 16.

Upon landing, the 101st commander is faced with a battle against time. He must form a hasty line of defence around the town before the German tanks can enter the action. Unless the line is formed north of Arnhem by game turn two, the Panzers will reach the highway bridge before the Americans have eliminated the flak units which defend it. If this happens, the bridge will never fall. With this in mind, the first thing the Allied commander should do with the 501st is form up a line of defence between the Mark V units and the town. After he has stopped the tanks, he should send a battalion from the 501st from the north and a battalion from the 502nd from the south to capture the highway bridge at Arnhem. He should make a similar attempt to secure the railroad bridge. Assuming the Americans have accomplished all of these goals, the two regiments north of the river can set up a defensive line stretching from fort Lag B'omer (A2338) to the ferry at Driel (A1822). The regiment south of the river should make an enclave around the highway and railway bridges and, ideally, extend the highway bridge enclave south to link up with the 82nd. If all goes according to plan the 101st should be in a position essentially as described above by game turn three, ready to wait out the next two days until Guards Armored arrives.

**Guards Armored:** Guards Armored is the cutting edge of the XXX Corps drive. Its task is to avoid combat as much as possible so as to reach the paratroopers before they are destroyed by the enemy. During the opening game turns, the player is hampered by his inability to get out of travel mode. The player should not even try to attack until he changes modes on game turn two. He should be sure to make use of his 17 pounder AT guns to uproot the entrenched infantry. After the German positions have been softened up, the tanks should make a series of close assaults against them. Once the road is cleared, the tankers should make their way northward with all speed.

At this time, I should make a few comments about "The Road," a pathway one hex wide and 187 hexes long. The whole game is predicated on the capture and control of this span. The Guards Armored commander is constantly faced with the question of whether or not to deviate from this path. If he does, he can use his forces more effectively than they can be used on a one hex front but he will have to deal with a plethora of new supply and command problems. In my experience, I have found it best not to deviate from the road after the initial breakout. This doctrine should not limit the player from moving his lead elements off of "The Road" in order to more effectively engage the enemy. Above all, the player should not

let himself get bogged down and maintain the momentum of the column.

**43rd Infantry Division:** The 43rd Infantry Division has very little to worry about. It should be used to support the units of the 1st Airborne. As soon as XXX Corps recon units have triggered the 43rd's entry, the division should spread itself out from the original front line north to the town of Uden (C4319). The only major resistance that the division will face will come from the 107th Panzer Brigade; as such, the 43rd's powerful recon and anti-tank units should be concentrated in the north.

**50th Infantry Division:** By the time that this division enters the game, there should be very little left to do. It should simply be sent up to Arnhem to strengthen the bridgehead and to garner some additional victory points.

**8th Armored Brigade:** This formation is second only to Guards Armored in offensive punch. It's really a pity that it won't get used for anything. It should probably do the same thing the 350th did. However, if there is any sort of resistance that needs to be crushed, this brigade is well suited to the task.

**XXX Corps troops:** The useful contingent of these troops are the artillery units. It should not be wasted as the artillery is the best in the game. If the 82nd or 101st is in trouble, these units can be used to take the punch out of the German offensive.

**15th of 19th Kings Royal Hussars, 44th Royal Tank Regiment, A and C Companies, Royals:** These units are perhaps the most important of all the Garden forces. Their armor makes them powerful but because of their independent headquarters, they are not tied down to the main column.

The 15\*19th must immediately attempt to relieve the over extended paratroopers north of Eindhoven. In order to accomplish this, the tanks should be set up on the western side of the front line. The only units facing them are a battalion of unentrenched SS infantry. The special bombardment of the first two turns and air strikes should be called down to help eliminate them. As soon as the SS infantry is eliminated, the tanks should speed northward to seize Eindhoven and help the paratroopers deal with the German tanks and the 59th Infantry Division.

Throughout the game, these units can be used for utility purposes, helping along the corridor when the Allied player needs tanks but doesn't want to stop Guards Armored. They can also be used as advancing units to trigger needed reinforcements.

In summary, the plan attempts to make use of the paratroops' traditional asset, vertical envelopment. The drop zones are such that the paratroopers can capture all of their objectives quickly so that they can be on the defensive rather than the offensive when the main body of the German Army arrives. Also, the plan extends the airborne carpet so as to make it more difficult for the Germans to establish a defensive position along the road.

### German Strategy

Up to now, the Germans have been hopelessly neglected in this article. This is

mainly because the Allied player calls the shots and the German must react to the individual situation. My advice to the German is to be where the Allies aren't. Find a weak spot and kill it. Specifically, keep the bulk of your forces as far away from the Garden forces as possible while concentrating on crushing the 82nd and 101st. Anything you throw at Guards Armored will die fairly quickly so use your cheap units to try to delay this column. One thing that I cannot overemphasize us to *entrench*. It's the only possible way to stop the British tanks.

### The Ahistorical Plan in Play

To put it briefly, the plan succeeded. On the first day, the paratroopers captured all of their objectives and established their defensive perimeters. Guards Armored made slow but steady progress, reaching Eindhoven that night. On the second day, the paratroopers maintained their lines despite continued pressure from the Germans. The Garden forces reached Nijmegen that night. The third day saw the British armor reach Arnhem with no resistance. As German reinforcements came on, they were destroyed by the independent tank regiments and the 8th Armored Brigade. It was obvious that the result was an Allied victory.

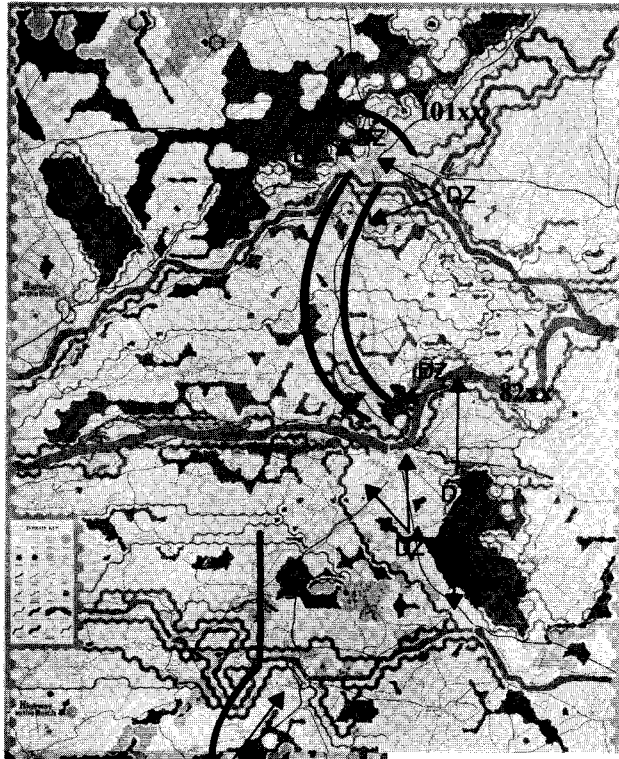
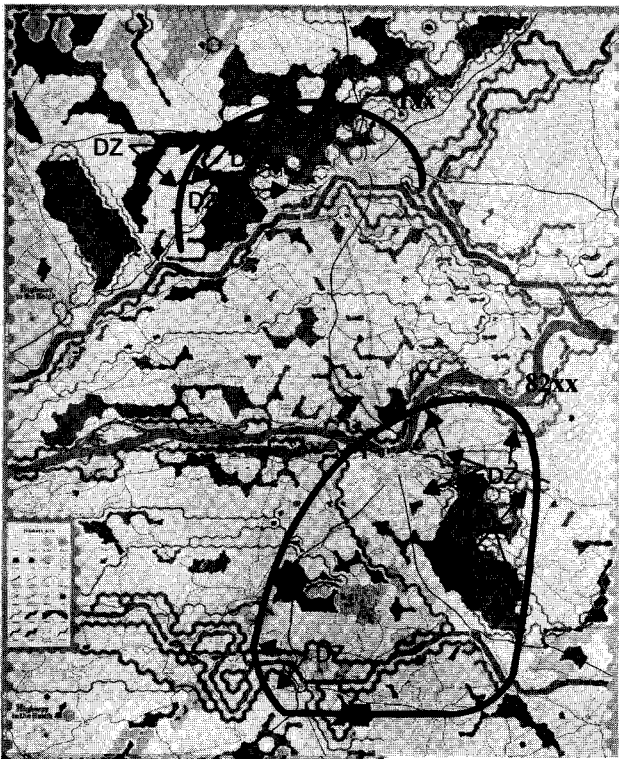
### Victory Conditions

The failure of Operation Market-Garden had a great impact on the length of the war. Had the British succeeded in gaining a viable bridgehead over the Rhine, all that would have lain ahead of them was the undefended expanse of the North German plain. They probably would have reached Berlin by Christmas. Its failure not only stopped the drive on the Rhine in the north, but it also depleted the already overtaxed logistical branch of the Allied armies. The Allies never really got started again until after the Battle of the Bulge. As a result, the war dragged on until May. When one considers the total casualties in the last six months of the war, the casualties of Operation Market-Garden seem much less.

With this in mind, the players arrived at a much simplified set of victory conditions. The game is an Allied Victory if the Allied player has gained a viable bridgehead across the Rhine (A viable bridgehead can be defined as a bridgehead that there is no way for the Germans to get rid of. A good rule of thumb is to require a minimum of 700 strength points of ground forces north of the Rhine). This bridgehead must be in supply with an unassailable line of defence for the entire span of the road to Arnhem. Otherwise the German player wins. The game lasts until game turn 106 or until one of the players is willing to admit defeat.

For the players who wish to have more definitive victory conditions, new objective hexes can be set for the airborne divisions and victory points calculated as per the victory conditions in the rules. They should be warned that these conditions require a lot of bookkeeping.

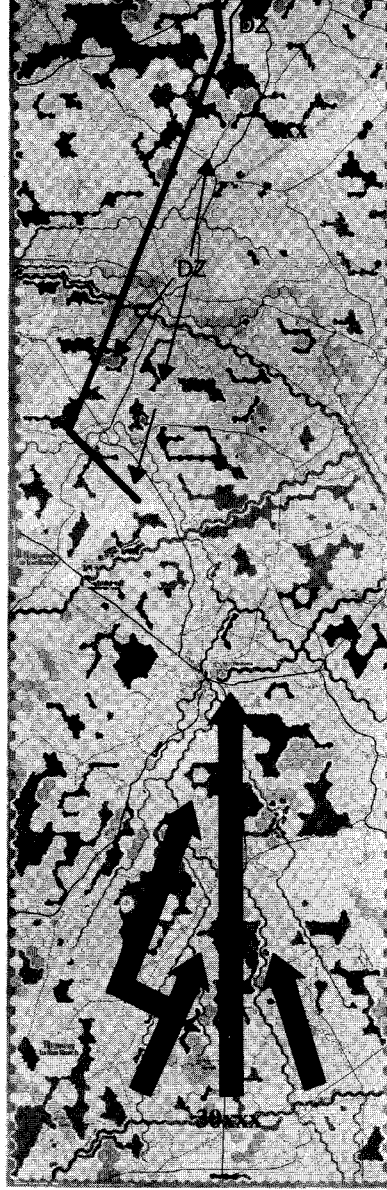
The freedom which I have given the Allies to fiddle with their drop zones has

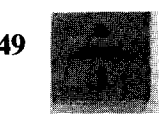
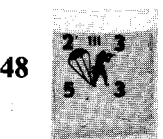
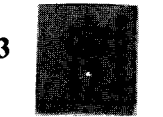
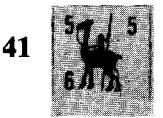
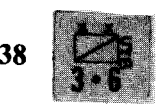
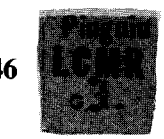
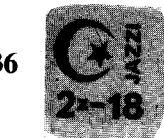
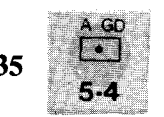
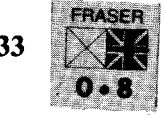
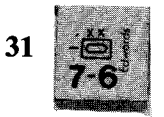
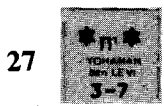


**Operation  
Market-Garden:  
Historical Plan**

DZ = Drop Zone

**Operation  
Market-Garden:  
Ahistorical Plan**





Hard

Nasty

Highway [continued from page 7]

given the Allied player a decisive edge. Historically, the Allies did not know of the disposition of German forces which has allowed for the changes of strategy that I have presented. To counteract the imbalance, the German reinforcement schedule can be altered as follows:

- 1st day reinforcements arrive as scheduled.
- 2nd and 3rd day reinforcements arrive one turn early.

Subsequent reinforcements arrive two game turns early.

This in effect simulates the increased speed with which the Germans would have reacted had they believed the copies of the Market-Garden plans which they found on the first day of the battle.

Tactical Notes

The tactical problems posed by the HWTR system are quite well discussed in the game notes. There are only a few things that I think are important to add.

Heavy weapons units deserve some discussion. Particularly for the paratroopers and German infantry, heavy weapons companies are the only line units capable of inflicting heavy casualties. In average terrain, a full strength concentrated infantry company has about a 20% chance of inflicting a casualty while a comparable heavy weapons company stands a 60% chance. In order to successfully conduct offensive action with infantry, it is necessary to keep these units full strength and concentrated so that they can be used to the fullest.

Anti-tank units are also worth looking at. Assuming that a player can get them into position (no easy task), they are the most potent units in the game. On the offensive, the guns with the two hex range can be taken out of travel mode out of the range of enemy opportunity fire. Once dispersed, they can be used to destroy tough units and entrenchments. On the defensive, AT guns can be dispersed in cities and towns to form the focal points of defensive positions.

On a more general note, players should try to maintain offensive and defensive combat effectiveness. By offensive combat effectiveness, I am referring to the ability of a unit to inflict casualties and close assault. By defensive combat effectiveness, I am referring to the point where a unit is in immediate danger of destruction by close assault and fire. For example, an American paratroop company loses offensive effectiveness after the loss of just one strength point, defensive combat effectiveness with the loss of three or four points. The point at which different units lose effectiveness varies.

It is essential that the player on the offensive maintain effective units at the front. He should keep reserves readily available so that he can switch battle worn troops for fresh ones. Defensively, the player should try to disperse and destroy the effectiveness of the attacking units. Do not try to destroy entire attacking units. It is much better to leave

the attacker with a lot of half strength units. They will only get in the attacker's way.

The players should also be careful with the command/supply rules. Too often, the German player in particular will too often find his units in a crucial position unable to fire because they lack a headquarters to supply them. For this reason, players on both sides should make enemy headquarters priority targets for attack. Because they can not disperse, they are also highly susceptible to direct fire.

To conclude, I would like to give HWTR a personal rating of 8.0. The subject is excellent for simulation. The graphic design and quality are superior. Most importantly, the game system is perfect for simulating all of the aspects of combined arms combat on the platoon/company level. HWTR's major flaw is that the combination of large size and complex game system make the game tedious at times. For the game to be played for the full 106 game turns by two people, it could easily take a full year. But when compared to other "monster games," HWTR is a most enjoyable and playable game. ■■

The Designer Replies:

Mr. Glennan's ahistorical plan is an interesting historical alternative, but players of Highway to the Reich should be warned that juxtaposition of the landing areas of the airborne divisions invalidates the victory conditions. The current conditions were tested with the assumption that all three divisions landed in their historical drop zones. I also do not understand why Operation Garden (i.e., the XXXth Corps) succeeded so much better in the ahistorical plan than in the historical plan. The conditions directly affecting Garden were very similar in both plans.

I appreciate Mr. Glennan's review of a game which has suffered neglect due to the garbled state of its original rules, and I hope that more views on the game will be forthcoming. Eric Goldberg

Opening MOVES [continued from page 3]

I reiterate that I'm only pointing out these lapses constructively — the same group will handle Origins 80 and should be fairly professional about it, if they incorporate their experience. Certainly SPI made a number of errors when it ran the convention — the object is to learn from previous experience and criticism rather than to walk on eggs around each others' egos. The national convention is a tough job under the best of circumstances — when performed without prior experience by too few people it's even tougher.

I here present my logo for Origins 80. You like? I offer this logo at no cost to the convention organizers. See, I ain't so mean after all. Redmond

